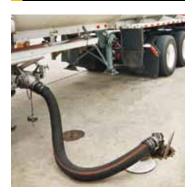




aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding





# **Industrial Hoses**

Catalogue







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## Parker Hannifin -

the global leader and your partner



Parker Hannifin is the world's leading diversified manufacturer of motion and control technologies and systems, providing precision-engineered solutions for a wide variety of mobile, industrial and aerospace markets. Our products are vital to virtually everything that moves or requires control, including the manufacture and processing of raw materials, durable goods, infrastructure development and all forms of transport.

Within Parker's eight operating groups, the company's engineering expertise spans the core motion technologies – electromechanical, hydraulic and pneumatic – with a full complement of fluid handling, filtration, sealing and shielding, climate control, process control and aerospace technologies.

The leader in "dry technology" for the fluid power industry, Parker's Fluid Connectors Group is your single source for high-quality tube fittings, hose and hose fittings, thermoplas-

tic tubing, brass fittings and valves, quickdisconnect couplings and assembly tools. The Fluid Connectors Group serves customers in a broad range of markets, including Aerial Lift, Agriculture, Bulk Chemical Handling, Construction Machinery, Food & Beverage, Fuel & Gas Delivery, Industrial Machinery, Medical, Mining, Mobile, Oil & Gas and Transportation. Products are available for shipment 24 hours a day, supported by 49 manufacturing facilities throughout the world, a global distribution

network and 25 company-owned stocking service centers. Our commitment to you is impeccable customer service. To meet your specific requirements, we offer a broad range of programs designed to reduce your overall operating costs, streamline manufacturing, improve productivity, manage inventory, enhance delivery and address safety and environmental issues. For value-added services that generate value-added solutions, team up with Parker!

## Parker Hannifin -

opportunity through innovation in the world's most demanding markets



# Worldwide availability

With more than 60.000 employees serving over 465.000 customers in almost 50 countries, Parker is literally everywhere you need us to be. By working with us, you have access to an integrated network of 300+manufacturing plants, as well as 13.000 distributors and MRO outlets, and over 2.000 ParkerStoresTM. That's the kind of global network global businesses demand.

## **Flexibility**

As the world's motion control expert, Parker offers you a complete range of proven, off-the-shelf products. These products deliver exceptional quality and durability, reducing costs and advancing performance.

### **Innovation**

It's what drives us. Our mandate for continuous improvement leads us to partner with our customers to create solutions that are smaller, lighter, sustainable, more energy efficient, and highly reliable.

# Industrial Hose Products Europe -

the market leader and your supplier of choice

Established in the 1948. IHPE is widely accepted as both a pioneer and market leader across many industries and markets. Our headquarters and engineering/manufacturing facilities are in Veniano, Italy, and our modern distribution center in Germany rapidly supplies products across Europe and the world. We supply a variety of hoses suitable for multiple media; standard hoses for traditional service as well as heavy duty hoses that provide superior resistance to abrasion, oils, chemicals, heat, flame and cold. We have the ability and expertise to safely handle either hazardous media in harsh environment and valuable and delicate media in protected environment.



The multifaced nature of our division – and our extensive product line – provide a number of possible solutions to a wide variety of application challenges in almost every industry.

From design, development and production to stocked inventory and shipment, we apply our know-how and passion to provide our customers with solid and efficacious solutions.

# **Our History of Experience**

With our history of success and reputation as a world-class manufacturer of flexible rubber hose, we continue to pursue and develop technologies offering the best solution for every application. Recent activities includes: acquisition of Snap-Tite in Ireland, a leading manufacturer of polyurethane flat hoses, introduction of innovative products such as ultra-flexible E-Z Form hose, development of the breakthrough technology such as extremely

abrasion resistant Cergom material handling hose, and special application hoses Carboblue and Carboblue HW. The latter hoses are environmentaly friendly, providing the required high grade of cleanliness for the SRC technology reducing NOx emission. Our success stories include a number of global OEMs and distributors across many diverse industries.

We contribute to short-and longterm customer profitability by maximizing value through premier product quality and service.

# **Capabilities**

Our manufacturing process is supported by a highly qualified and experienced engineering staff and efficient production equipment. Deployment of these resources ensures precision control of the manufacturing process and materials, as well as the ability to create new design idea and implement solution. With the addition of Snap-Tite we have augmented our rubber and PVC capabilities with polyurethane flat hose enriching our product portfolio and gaining access to additional markets.

Production line	ID min (mm)	ID max (mm)
Long Length	3	38
Mandrel Made	13	200
Snap-Tite	32	150
PVC	5	300

# Quality

Parker is a company which operates in compliance with the quality system laid down by the UNI EN ISO 9001 and 14001 standard, certified by Det Norske Veritas.

More and more Parker industrial hoses are certified by the main international certification bodies such as: RINA, Cerisie, DNV, TÜV Rheinland, Lloyd's Register etc.



# **Ecology**



Caring for and ensuring the sustainability of the planet is our intention; we therefore develop and improve hoses for alternative fuels like gas, natural oils, ester oils etc. for environmentally-friendly technologies such as the new SCR one.

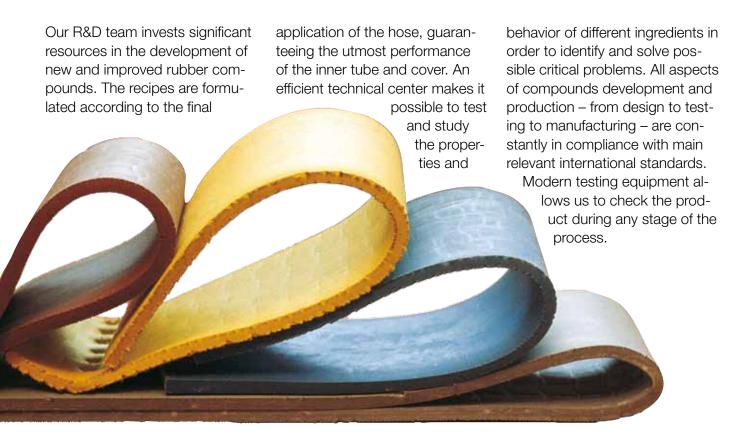
Parker developed nitrosaminefree compounds to improve the quality of life and

to improve the quality of life and of the environment.

We are doing more for our customers than ever before. Globally, we have localized service to provide fast, hassle-free responses and on-site support.

We're staying close to our customers and integrating systems to help them become more profitable. We are committed to delivering our highly engineered products on-time, on-promise.

## Compounds



# Service - Helpdesk

An expert team of sales and customer service specialists are at your disposal, assuring proficient support and appropriate problem solving resources. Parker provides personal sales and technical support through local branch sales representatives as well as regional industrial hose sales specialists, product sales managers and engineers. We care about your business and seek to develop a close relationship with you.



# Applications and Markets -

whatever application you have, we have the best solution for you



Oil & Fuel

Selection of hoses to safely dispense and transfer a variety of fuels and oils in compliance with relevant international standards.

Automotive

Highly engineered components for the automotive industry to convey air, coolants and fuels ensuring performance, reliability and safety.

Air

Suitable for a wide range of industrial applications, including the most demanding ones such as compressed air and breathing air supply.

Gas

Specific hose constructions for safe and secure handling of potentially hazardous gases in different application: welding, domestic consumption, industrial appliances.

Water

Wide range of sizes to convey or transfer water and mild chemicals solutions in agriculture or general industrial applications; for pressure and/or vacuum; not for aggressive chemicals.

Hot Water & Steam

Clean and heat with the utmost reliability and safety.

Acid & Chemical

Hoses manufactured with state-of-the-art compounds according to European standards to transfer chemicals, corrosive products and additives in mobile or fixed installations.

Material Handling

Abrasion resistant inner tube and cover primarily recommended for the construction industry but also for special heavy duty service in recycling, power generation and mineral handling applications.

Beverage & Food

Wide range of sizes specifically designed for food & beverage industry to efficiently and safely convey all foodstuff without contamination.

Ducting

Hoses suitable for suction of air, dust and fumes even at high temperatures or containing abrasive materials

Multipurpose ....

Versatile hoses designed to resist to different media without compromising performance.

# **Global Hose**

Same hose, same performance, same features, same availability everywhere



Our Global Hose Program consists of a worldwide network of Parker manufacturing facilities and distribution centers that assure consistent Parker quality while providing the flexibility to satisfy peaks of customer demand. The synergy among Industrial hose divisions around the world is one of our primary strength and an value-added support for our customers. Parker global hoses are suitable for OEMs and MRO channels, for diverse application across multiple industries and markets.

## **GST® II**

Multiple applications, multiple pressures, multiple benefits. When a general purpose hose can generate particular operative benefits.

GST® II hose is a versatile general purpose hose designed to handle air, mild chemicals and water. The Special EPDM inner tube is compatible with light oil mists found in air tool lubricating systems. The multiple plies of textile reinforcement provide flexibility while assure a very high safety factor of 4:1. The cover is resistant to abrasion, heat and ozone. Both tube and cover compound are nitrosamine-free to sustain the environment.



### E-Z Form Hose

Kink-free E-Z Form™ Hose Eliminates the Need for Pre-formed Hose



E-Z Form hose provides extreme flexibility for easy and quick installation of coolant, water and oil suction/return lines on mobile and industrial equipment. Available in multiple incremental sizes, E-Z Form hose reduces installation time, eliminates the need for costly made-to-order pre-formed hose and provides rapid delivery from stock without requiring dedicated inventory.

## **JIFFYTM**

Push-On Multipurpose Oil resistant and flame resistant hose.

Series 7212 is a versatile multipurpose push-on hose designed to handle air, mild chemicals, water, oil, and refined fuels such as biodiesel (to B20 in dedicated service), diesel, ethanol and gasoline. The hose construction incorporates a silicone-free tube that does not contaminate air powered paint spray systems. The braided textile reinforcement provides kink resistance and superior coupling retention push-on couplings do not require bands, clamps or special tools for installation. The flame resistant cover meets MSHA requirements, is resistant to oil and weathering.



# **POLIAX** range

Hoses manufactured with state-of-the-art compounds according to European standards to transfer chemicals,

corrosive products and additives in mobile or fixed installations.

Extreme chemical transfer applications do not scare us; on the contrary it is part of our mission and a commitment. Our Poliax product line inhibits the contamination of the environment and guarantees the integrity of the media conveyed. The hose meets or exceeds EN 12115 specifications. We have multiple construction typologies to suits as many needs as possible as well as the new Long Length range in smaller diameters. The corrugated version offers additional flexibility

and it is easy to handle in case of routing constraints or manual operations. Due to many different media combinations of acids, solvents, alkalis - and aninfinite variety of possible combinations - we recommend to utilize the STAMP approach and always consult our chemical compatibility chart to select the most appropriate hose. If there are any doubts or question, contact a Parker engineer.

For more information about the POLIAX range please refer to chapter G (Acid & Chemicals)



# New GAMBRINUS range

Rubber and PVC hose range specifically designed for food & beverage industry to efficiently and safely convey all foodstuff while preserving products features and consumer health.



For more information about the new GAMBRINUS range please refer to pages 16 - 110

The program includes specific alimentary hoses to withstand and preserve different typologies of foodstuff during the collecting, transport, processing and packing phases. Produced on dedicated lines using stainless steel mandrels, our compounds are resistant to cleaning and sterilization to guarantee utmost cleanliness and hygienic standard. The original GAMBRINUS offering has quadrupled its scope: Blue, Red, Black and UPE lines are designed to fit specific products features.

The appropriate manufacturing and performance standards are certified by compliance with main European and International norms and specs such as EN1935, BfR XXI, FDA. We also offer Stainless Steel Fittings capabilities – with permanently crimping ferrule or safety/bolt clamps – providing solutions to the most demanding applications in process plants. Our offering is supplemented with PVC hoses that offer an alternative to rubber where lighter weight is preferred.

# Polyurethane lay flat hose

### Rugged Constructions for diverse applications



Parker Snap-tite polyurethane lay flat hose provides compact, durable, lightweight water and multipurpose service in agricultural, construction, general industrial and mining applications. The hose offers superior value due to its robust design, rugged materials, compatibility with multiple media and versatility across many applications.

For more information about Polyurethane lay flat hose please refer to pages E8, I14, K16, K17 Traditional PVC lay flat hose incorporates spiral reinforcement sandwiched between stiff layers of PVC, whereas Parker Snap-tite hose features a strong circular woven reinforcement that allows the polyurethane to be extruded through-the-weave, fully encapsulating the textile reinforcement. The strong yet pliable hose wall resists abrasion, cracking, puncturing, and degradation from oil, ozone, petrochemicals, ultraviolet light and weathering. The design and materials promote strong adhesions between the hose components, resulting in exceptional performance and service life.

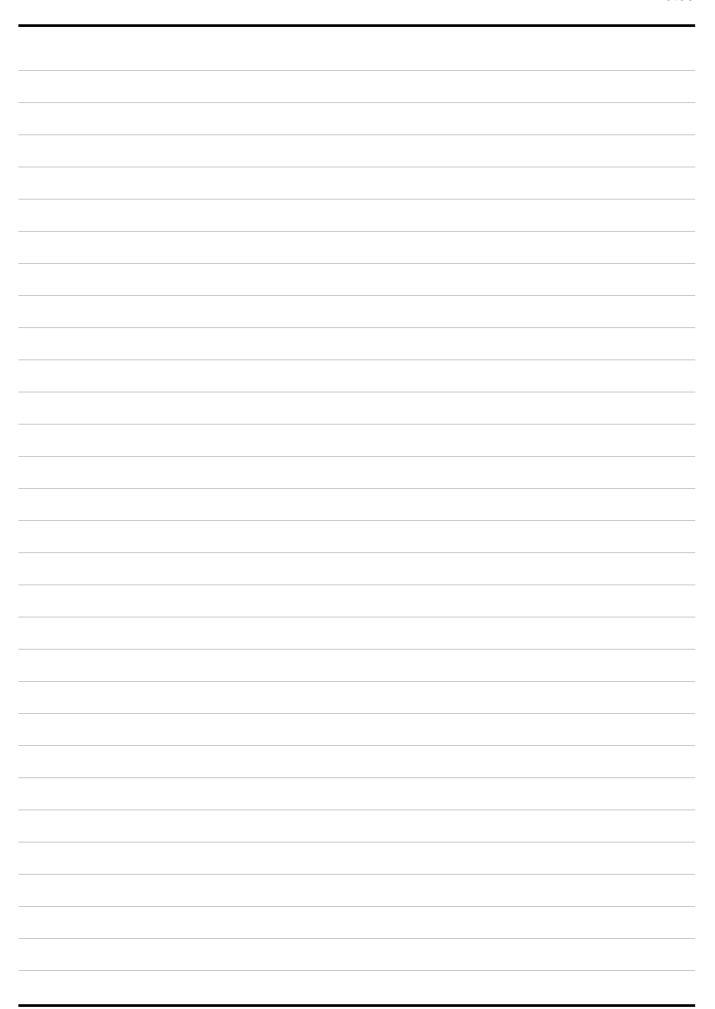
### **CERVINO**

Large bore Oil & Fuel hose for outdoor application at low temperature conditions starting from -40 °C

Parker CERVINO is designed for suction and delivery of mineral oils and fuels. The special compound makes the hose ideal for outdoor applications when low temperature conditions are encountered e.g. wind power generation, processing industry, off shore, mining and off highway mobile equipment. CERVINO maintains its flexibility and tight bend radius even at -40 °C temperatures. The special heavy duty cover compound guarantees an elevate resistance to the abrasion for severe applications. CERVINO is available also as complete hose assemblies due to the new large bore crimping capability with standard fittings 48 series.

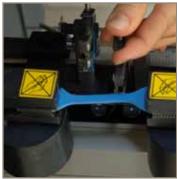




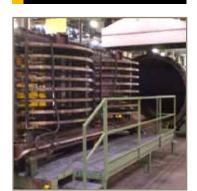








aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding



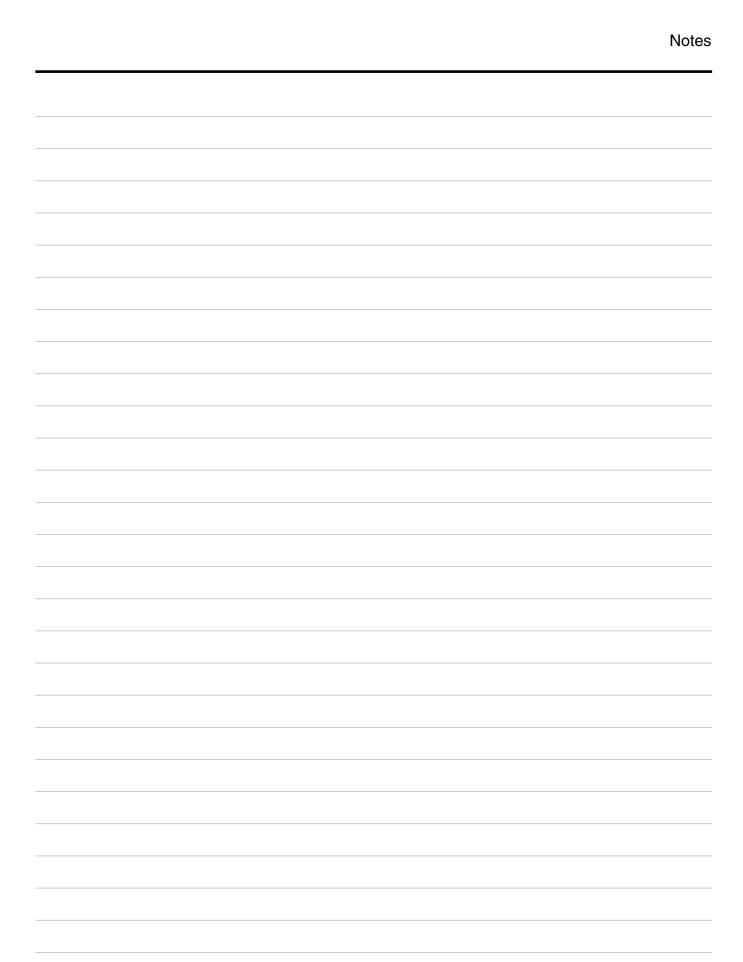


# **Industrial Hoses**

Technical Handbook









# **Technical Handbook**

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# Technical Handbook Hose Selection Matrix

		<u></u>	Temp.					Q.M	Cafety			
	Ноѕе	<b>Range</b> (mm)	Range (°C)	Application	Tube	Reinforcement	Cover	(bar)	factor	Suction	Industry standard	Page
	CARBOPRESS N/L 10	5 - 25	-25 / +80	fuel, oil, petrol aromatic < 50 %	NBR	textile	NBR/EPDM	10	က			A4
	N/L 20	6 - 25	-25 / +80	fuel, oil, petrol aromatic < 50 %	NBR :	textile	NBR/EPDM	50	က			₹ ;
		19 - 150	08+ / 97-	ruel, oll, petrol aromatic < 50 %	NBX 1	elixei	NBK/SBK	2 9	n .	yes	L	g ç
	CARBOCORD EN 12113	19-100	-25 / +80	fuel, oil, petrol aromatic < 50 %	N N N	textile + copper wires	NBH/SBH NBH/SBB	0 4	4 4	VQN	EN 12115	A 40
	QNO	19 - 100	-25 / +80	fuel, oil, petrol aromatic < 50 %	NBR NBR	textile + copper wires	NBR/SBR	9	. 4	yes	EN 12115	. A8
0		50 - 100	-40 / +80	fuel, oil, petrol aromatic < 50 %	NBR	textile + copper wires	NBR/SBR	16	4	yes	EN 12115	8 P
il &	1360/1	16 - 25	-25 / +55	petrol pumps	NBR	textile + copper wires	S	16	4		EN 1360/1	A11
Fu		38 - 100	-25 / +80	fuel, oil, petrol aromatic < 50 %	NBR	textile + copper wires	NBR/SBR	16	4	yes		A10
el	EN 1762 D-M	13 - 50	-30 / +70	LPG/ CNG load tankers	NBR	textile + copper wires	NBR/SBR	25	4		EN 1762	A12
		6.5 - 51	-30 / +20	LPG/ CNG load & unload tankers	NBR	steel wire	SBR/CR	22	9			A13
		25 - 100	-40 / +70	aircraft refuelling	NBR	textile + copper wires	S.	50	4		EN ISO 1825 Type B	A14
		25 - 100	-40 / +70	aircraft refuelling	NBR	textile	S	20	4		EN ISO 1825 Type C	A15
		25 - 100	-40 / +70	aircraft retuelling	NBR 1	textile	E C	8 8	4 4	yes	EN ISO 1825 Type E	A16
	1823	23 - 100	-407 +70	aliciali reluelling	ב ב	extile extile	5 8	2 0	4 <	yes		<u> </u>
	3/\C	25 - 100	-40/+/0	aircraft retuelling	NBY 1	textile	5	2 5	4 (		API 1529 lype C - Grade 2	A18
		61 - 7	-30/+100	cooling line system	EPDIM	textile	EPDIM	ا ⊆	n .			B4
		13-100	40 / +125	nigh flexible hose for coolant line system	EPDM	textile	EPUM	Ω (	4 0	yes	SAE J ZURZ - D1	2 2 2 2
		06-01	-40 / +125	cooling line system	EPDM	textile	EPDM	· 0	n .			B6 - B/
Z	AIRBRAKE DIN 74310	7 - 15	-40 / +/0	breaking system	EPDM	textile	EPDM	2 ;	4 -		DIN 74310	20 G
lut	AIRBRAKE SAE J 1402-A	9.5 - 15.9	-40 / +93	breaking system	NBK/SBK	textile	5 8	2 5	4 4		SAE J 1402-A	) RG
om	CARBUPRESS SAE J 30 R/ IV/L	4 - 12.7	-40 / +125	car & motorbike fuel system	N 2	extile +	7 0 0	2 \$	4 c		SAE 30 H/	_ 6
oti	TBSE	4 - 10 7 F	-30/+100	car & motorbike tuel system	NBN Day	textile textile	NBR/EFUN	⊇ ç	n c			27 0
ve	_	0.7-0	-20/+90	car a mountaine idei systemi		extile textile		2 4	o <		EOE 62/110	2 5
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Boa		07-01	40 / +100	nox reducing system		lexille textile		2 8	ე ი			0 d
it		5-25	-20 / +100	hoat file system	NB NB	textile	NBB/SBB	2 4	ο α		FN ISO 7840 A1	T C
		38 - 50	-20 / +100	hoat file system	N N N	textile	NBB/SBB		000		EN ISO 7840 A1	. H
		19 - 60	-20 / +100	boat fuel system	Z Z	textile	NBB/SBB	5 15	0 00	Ves	FN ISO 7840 A1	B16
		19 - 150	-20 / +100	coolant line	N N N N N N N N N N N N N N N N N N N	textile	NBR/SBR	) (	6.5	Ves	EN ISO 7840 A1	B17
		25 - 102	-30 / +80	compressed air, non aggressive liquids	SBR	textile	SBR	9	ო			2
	MINIERA 20	19 - 100	-30 / +80		SBR	textile	SBR	20	က			O2
Α		13 - 51	-40 / +100		NBR	steel wire	SBR/CR	40	4			8
ir		51 - 80	-40 / +220	hot air for compressors and pneumatic sys.	EPR	textile	EPDM	10	ო			C7
	MASKPRESS EN 14594 Class B N/L 100	9.5	-30 / +80	breathing system	NBR	textile	NBR	9	9		EN 14594 Class B	88
		6.3 - 8	-30 / +80	breathing system	EPDM	textile	EPDM	35	4		EN 250	8
	NB/L 20	6.3 - 10	-25 / +80	welding process	SBR	textile	SBR/EPDM	20	ო		EN ISO 3821	D4
		6.3 - 10	-25 / +80	welding process	SBR	textile	SBR/EPDM	20	က		EN ISO 3821	D2
G	INERPRESS EN ISO 3821 N/L 20	6.3 - 10	-25 / +80	inert gas delivery	N N	textile	SBR/EPDM	50	ကဖ		EN ISO 3821	9 7
as	PROPANPRESS EN ISO 3821 N/L 20	6.3 - 10	-30 / +/0	propan gas delivery	Z Z	textile	NBR/PVC	20	n (		EN ISO 3821	70
	EN ISO 3821 NHAVE 20	6.3 - 16	-25/+/0	vanous gas delivery	NBN i	textile	NBH/PVC	02.5	n (		EN ISO 3821	2 2 2 3
	CARBO G NB/R 10	χoç	-20 / +80	nousenoid applicances	NBY 1	textile	SBR/EPUM	0 9	n (		UNI CIG 7140	6 0 0
	JWV/L 10	13	-20 / +90	nousehold applicances	NBH NBH	textile	SBR/EPUM	2	m (		UNI CIG 7140	2 1
		25 - 100	-30 / +80	water, non aggressive liquids	SBR	textile	SBR SBR	10	თ (			т Т
		021-09	-30 / +80	water, non aggressive liquids	SBR	textile	NEX CET	0 7	n (			F4
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/ate	C	10 - 203	-30 / +80	water, non addressive liquids	N N N	textile	S S S	2 5	n 0	90/		2 2
er	90 H I I	71 - 150	-40 / +80	water, Total agglessive addice		textile		2 6	0 0	yas		ìã
		25 - 200	-15 / +60	water, non addressive liquids	PVC O	textile	PVC PVC	ζ ∞	1 4			G G
		19 - 150	-10 / +60	water, non addressive liquids	PVC	PVC wire	PVC	7	ო	Nes		E10



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FRUTPRESS N/L 50 FRUTPRESS N/L 50 FRUTPRESS N/L 100 LIBECCIO EN ISO 3861 CEMENT 7/3 10 CEMENT 7/3 10 CEMENT SM 10 CEMENT SM 10 CEMENT SM 10 S0 - 125 VIBRACORD 10 CERGOM CERGOM DRINKPRESS 164 DRINKPRESS	sultural spray sultural spray abd dry sand and cement abd sans and sement abrasive materials & beverage and steam 1& beverage food & beverage		textile textile textile extile + copper wires textile textile textile textile extile + copper wires extile + copper wires extile + copper wires	EPDM/NBR SBR/NBR SBR SBR SBR SBR NB/SBR SBR/NBR NB/NWC FPNM	000000000000000000000000000000000000000	0 0 4 0 0 0 0 0 u	yes	EN ISO 3861	310 310 H4 H5 H6
FRUTPRESS NL 100  LIBECCIO EN ISO 3861  CEMENT 713 10  CEMENT 713 10  CEMENT SM 10  CE	abd dry sand and cement abd sand end cement abds we concrete pumping abrasive materials abverage and steam 1& beverage 10d & beverage		textile textile textile textile textile textile textile textile steel wire extile + copper wires textile extile + copper wires extile + copper wires	SBR/NBR SBR SBR SBR SBR SBR NBV/SBR SBR/NBR NBR/VC FP/M	00 00 00 00 00 00 00 00 00 00 00 00 00	თ 4 თ თ თ თ ი ი	yes	EN ISO 3861	310 H4 H5 H6
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CEMENT 713 10 50 - 100 CEMENT SM 10 50 - 125 VIBRACORD 10 25 - 30 INTONACATRICI 40 25 - 65 BETON 80 25 - 65 DRINKPRESS 164 10 25 CERCOM 25 - 200 DRINKPRESS 164 10 - 25	abd dry sand and cement abd dry sand and cement umatic vibrators for concrete abd dry sand and cement pressure concrete pumping abrasive materials & beverage and steam 1& beverage food & beverage		extile + copper wires textile textile textile steel wire extile + copper wires textile + copper wires extile + copper wires	SBR SBR SBR SBR NR/SBR SBR/NBR NBR/PVC FPNM	01 01 04 08 c	თ ო ო ო <mark>ი</mark>	yes yes		: 운 앞
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BETON 80 51 - 125 CERGOM 25 - 200 DRINKPRESS 164 10 - 25 AMBRINUS UPE WB SM EN12115 19 - 100	pressure concrete pumping abrasive materials 1& beverage and steam 1& beverage food & beverage		steel wire extile + copper wires textile extile + copper wires	NR/SBR SBR/NBR NBR/PVC FPDM	8 c	C C	V S S		ᢞ
CERGOM DRINKPRESS 164 10 - 25 AMBRINUS UPE WB SM EN12115 19 - 100	abrasive materials 1& beverage and steam 1& beverage food & beverage		extile + copper wires textile extile + copper wires	SBR/NBR NBR/PVC FPDM	c	Z.D	Ves		유
GAMBRINUS UPE WB SM EN12115 19 - 100	1 & beverage and steam 1 & beverage food & beverage		textile extile + copper wires	NBR/PVC FPDM	)	က	222		H10
GAMBRINUS UPE WB SM EN12115 19 - 100	I & beverage food & beverage		extile + copper wires	FPDM	50	က		DM 21/03/73 - FDA	4
	food & beverage	UHMWPE t		<u>-</u>	16	4	yes	**EN 12115 - FDA - DM	2
		NBR	textile	NBR	9	က		* BfR - DM - FDA - EC	9
GAMBRINUS BLUE SM 10	fatty food & beverage	NBR	textile	NBR	10	က	yes	* BfR - DM - FDA - EC	
GAMBRINUS RED 10	wine and soft drinks food & beverage	EPDM	textile	EPDM	9	က		* BfR - DM - FDA - EC	<u>®</u>
- 100 - 61	wine and soft drinks food & beverage	EPDM	textile	EPDM	우	က	yes	* BfR - DM - FDA - EC	61
GAMBRINUS BLACK SM 10 50 - 100	abrasive food	NR/SBR	textile	NR/SBR	10	က	yes	* BfR - DM - FDA - EC	110
VINTRESS 6 - 50	food & beverage	PVC	textile	PVC	20	က		EC 90/128 CLASS A-B-C	Ξ
APERSPIR 10 - 150	food & beverage	PVC	steel wire	PVC	12	က		EC 90/128 CLASS A-B-C	112
25 - 150	wine and soft drinks food & beverage	S S	PVC wire	i	10	က၊	yes	EC 1935:2004 CLASS A-B-C	13
LE POTABle Water PU Hose	potable water transfert	2 8	textile		OZ.	N	9	WRAS - DWI - NSF 61	114
ASPIREX 20 - 250		FVC	PvC wire	) }			yes		4 <del>7</del>
- 150 - 150			Steel Wire				)es		<u> </u>
ASPIREX PU/ANC	suction equipment		₹	7	, ,		yes		9 5
85 - C	compressed all, non aggressive liquids	EPDM	textile	EPUM	<u>υ</u> ,	4 ,			4 i
D.5 - 38	compressed all, non aggressive liquids	E POM	textile	E POM	<u>ი</u> მ	4 4			υ Σ 2
GST I ZU BÄHTIVE G.3 - 23 - 40 / +100	complessed all, non aggressive liquids		extile +		0 6	<b>1</b> C			2 2
10-30	Haripari pose	E C	textile	MCG MCG	8 8	o e:			2 %
6 - 100	multipurpose	FPDM	textile	FPDM	8 8	) (C			5 5
JUMBO N/L 13 - 25	multipurpose	EPDM	textile	EPDM	8 8	) რ			X 10
E-Z FROM MP 13 - 75	high flexible hose for multipurpose	S	textile	S	2	4	yes		K11
OILPRESS N/L 20 6 - 25 -30 / +100		NBR	textile	R	20	က			K12
GOILPRESS N/L 30 6 - 25 -30 / +100	multipurpose	NBR	textile	S	30	က			K12
ARCTIC EDGE 9.5 - 38	low temperature multipurpose		textile + copper wires	S	20	4			K13
	multipurpose	NBR	texitle	8	20	4		MSHA approved	X14
8 - 19	agricultural spray	PVC	textile	PVC	50	4			X15
8 - 13	agricultural spray	PVC	textile	PVC	40	က			X15
8 - 13	agricultural spray		textile	PVC	8	2.5			X15
J Hose 32- 51	multipurpose		textile + copper wires	B :	50	7			K16
TS Slurry PU Hose 90 - 125 -40 / +80	slurry transfert	PU	textile	PO	9	က			K17



### **Rubber Hose Construction**



### Tube

It is the innermost rubber or plastic element of the hose. Must be resistant to the materials it is intended to convey. The characteristics of the rubber or plastic compound and the thickness of the tube depend on the service in which the hose will be used.

### Reinforcement

Can be textile, plastic or metal, alone or in combination, built into the body of the hose to withstand internal pressures, external forces or combination



It is the outer element and can be made of rubber, plastic or textile materials. The function of the cover is to protect the hose from damage and environment.





# Long Length (LL) Production method:

Seamless extruded hoses without or on flexible mandrel and eventually white lead vulcanization with synthetic textile yarn reinforcement for standard production up to 100 m and internal diameter up to I.D. 35 mm.



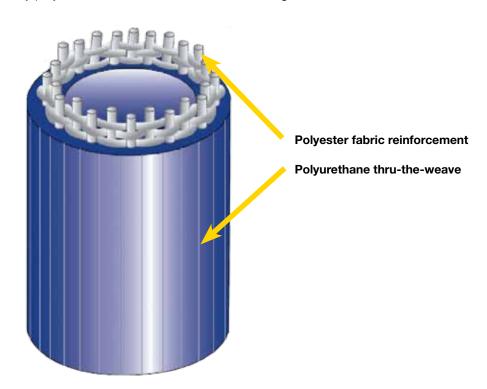
# Mandrel Made (MM) Production method:

Hose produced on a rigid mandrel with a reinforcement of textile fabrics or steel braids, with or without steel wire helix, for standard production length up to 40 m and internal diameter range from I.D. 19 mm to I.D. 200 mm.



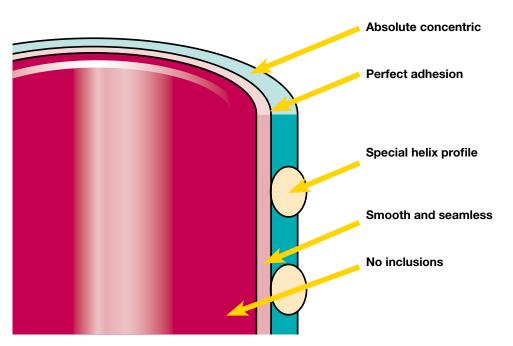
### **PVC-PU Hose Construction**

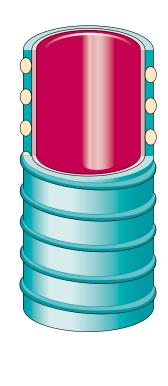
PU Lay Flat Hose
The hose is manufactured of circular woven polyester fabric completely encapsulated by polyurethane elastomer that is forced through-the-weave



### PVC-PU CONSTRUCTION

Flexible hose having a rigid PVC spiral or a steel wire reinforcement spiral embedded in a PVC wall.







## **Hose Part Number Description**

IH35.... → PVC or PVC-PU Hose

 $IH_{30}$ ....  $\rightarrow$  Long Length Rubber Hose

IH<mark>36</mark>.... → Mandrel made Rubber Hose

IH42.... → Mandrel made Rubber Hose

IH7.... → Global Hose Series









### Example

 $IH_{35}^{562019/50} \rightarrow PVC \text{ or PVC-PU Hose}$ 

IH35562019/ $\frac{50}{}$   $\rightarrow$  PVC or PVC-PU Hose, length 50 m

IH35562019/<mark>0 → PVC or PVC-PU Hose, length: variable</mark>

### Lay Flat PU Hose

IR ..... Irrigation Hose

TS..... Slurry Hose

TE.....PW Potable Water Hose

TE.....AS Antistatic version



Hose to be ordered in coils.



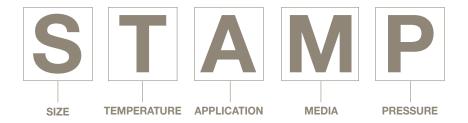
## **Conversion Chart**

	Unit	Base Unit	Conversion Unit	Factor
	1 inch	in	mm	25,4
Length Area	1 milllimetre	mm	in	0,03934
	1 foot	ft	m	0,3048
	1 metre	m	ft	3,28084
	1 square-inch	sq in	cm²	6,4516
Area	1 square-centimetre	cm²	sq in	0,1550
	1 gallon (UK)	gal	I	4,54596
	1 litre	I	gal (UK)	0,219976
Volume	1 gallon (US)	gal	I	3,78533
	1 litre	I	gal (US)	0,264177
\M/a:abt	1 pound	lb	kg	0,453592
Weight	1 kilogramme	kg	lb	2,204622
Torque	1 pound foot	lb • ft	kg • m	1,488164
	1 newton metre	kg • m	lb • ft	0,671969
	1 pound per square inch	psi	bar	0,06895
	1 bar	bar	psi	14,5035
	1 pound per square inch	psi	MPa	0,006895
Pressure	1 mega pascal	MPa	psi	145,035
	1 kilo pascal	kPa	bar	0,01
	1 bar	bar	kPa	100
	1 mega pascal	MPa	bar	10
	1 bar	bar	MPa	0,1
	1 foot per second	ft/s	m/s	0,3048
Velocity	1 metre per second	m/s	ft/s	3,28084
Velocity	1 gallon per minute (UK)	gal / min.	I / min.	4,54596
	1 litre per minute	I / min.	gal / min. (UK)	0,219976
Flow rate	1 gallon per minute (US)	gal / min.	I / min.	3,78533
	1 litre per minute	I / min.	gal / min. (US)	0,264178
Tamananahiri	Fahrenheit degree	°F	°C	5/9 • (°F-32)
Temperature	Celsius degree	°C	°F	°C • (9 /5) +32

(UK) Unit of United Kingdom (US) Unit of USA

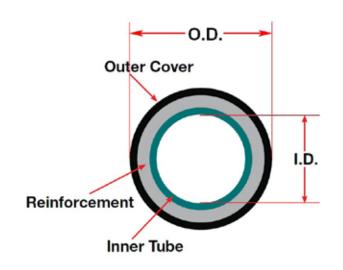


## Before you spec it, STAMP it.



### SIZE

The hose Internal and External Diameter must be sized accurately to obtain the proper values to couple the hose with reusable or permanent fittings. The measuring system of the inside and outside diameter of the hose is universally regulated by ISO 4671 while the hose tolerances are listed in the ISO 1307 if not superseded by particular and specific other norms (i.e. EN 12115).



### TEMPERATURE

When specifying hose, there are two temperatures you need to identify. One is the **ambient temperature** which is the temperature that exists outside the hose in the application where it is being used; the other is the **media temperature** which is the temperature of the media conveyed through the hose. Very high or low ambient temperatures can have adverse affects on the hose cover and reinforcement materials, resulting in reduced service life. Media temperatures can have a much greater impact on hose life. For example, rubber loses flexibility if operated at high temperatures for extended periods.







## **A**PPLICATION

Before selecting a hose, it is important to consider how the hose will be used. Answering the following questions may help:

- Which is the media conveyed?
- · What type of equipments are involved?
- Is it a static or dynamic application?
- Are there any routing constrains?
- Do you need particular cover features?
- Should the hose comply with any industry or government standards?
- Which are the electrical hose conductivity/ resistance requirements?



Sometimes specific applications require hoses specific dimensions, features or performance characteristics. For example, applications where hoses will encounter rubbing or abrasive surfaces, would be best handled by our family of abrasion resistant hose. When application space is tight, bend radius is another important consideration. We offer hoses with increased flexibility and smaller outer diameters enabling faster, easier routing in small spaces, reducing both hose length and inventory requirements. Industry standards set specific requirements concerning construction type, size, tolerances, burst pressure, and media compatibility. You must select a hose that meets the legal requirements as well as the functional requirements of the application.

### MEDIA

What will the hose convey? Some applications require the use of specialized oils or chemicals. The hose you order must be compatible with the medium being conveyed. Compatibility must cover the inner tube, the cover, hose fittings, and o-rings as well. Use the Oil and Fuel and Chemical Resistance Chart you find in this section to select the correct components of the hose that will be compatible with your system's media.



### **P**RESSURE

Hose selection must be made so that the published maximum working pressure of the hose is equal to or greater than the maximum system pressure. Surge pressures or peak transient pressures in the system must be below the published maximum working pressure for the hose.

Each Parker hose has a pressure rating which can be found on the HOSE SELECTION MATRIX. Burst pressure ratings are not an indication that the product can be used above the published maximum working pressure. It is for this reason that the burst pressure ratings have been removed from the hose charts within the catalog. However the burst pressure is indicated by the safety factor of each hose type.





### **Standards**

API 1529 Type C - Grade 2

JETCORD XT/C

BfR XXI cat.2

GAMBRINUS BLACK SM 10

**GAMBRINUS BLUE 10** 

GAMBRINUS BLUE SM 10

GAMBRINUS RED 10

GAMBRINUS RED SM 10

**DIN 74310** 

AIRBRAKE DIN 74310

DM 21/03/73

DRINKPRESS 164

GAMBRINUS BLACK SM 10

GAMBRINUS BLUE 10

GAMBRINUS BLUE SM 10

**GAMBRINUS RED 10** 

GAMBRINUS RED SM 10

GAMBRINUS UPE WB SM EN12115

DM 220 26/04/93

GAMBRINUS UPE WB SM EN12115

EC 1935:2004

ENOREX

GAMBRINUS BLACK SM 10

GAMBRINUS BLUE 10

GAMBRINUS BLUE SM 10

**GAMBRINUS RED 10** 

GAMBRINUS RED SM 10

EC 90/128

APERSPIR

ASPIREX PU/ANC

VINITRESS

ECE 67/110

AUTOGAS ECE 67/110 CLASS2

EN 12115

CARBOCORD EN 12115

CHEMIOEL EN 12115

CHEMIOEL 10 EN 12115 OND

CERVINO EN 12115

GAMBRINUS UPE WB SM EN12115

POLIAX D EN 12115 LL

POLIAX D EN 12115

POLIAX D SM EN 12115

POLIAX UPE CON SM EN 12115

POLIAX UPE CON EN 12115

POLIAX UPE CON SM EN 12115 OND

EN 1360

CARBOPRESS D EN 1360/1 N/L

EN 1762

GASTRUCK EN 1762 D-M

EN 14594

MASKPRESS EN 14594 Class B N/L 100

EN 250

DIVER 100 EN 250 N/L

EN ISO 3821

AUTOGENE EN ISO 3821 NR/L 20

AUTOGENE EN ISO 3821 NB/L 20

BIPRESS EN ISO 3821 B-R/L 20

INERPRESS EN ISO 3821 N/L 20

MULTIGASPRESS EN ISO 3821 NRA/L 20

PROPANPRESS EN ISO 3821 N/L 20

**EN ISO 3861** 

LIBECCIO EN ISO 3861

EN ISO 6134

VAPORE 164 EN ISO 6134 Type 1/A

VIGOR EN ISO 6134 Type 2/A

VIGOR NR EN ISO 6134 Type 2/A

**EN ISO 7840** 

CARBOCORD EN ISO 7840 A1

CARBOPRESS EN ISO 7840 A1

CARBURITE EN ISO 7840 A1

SM/TR 311

FDA title21

ASPIREX PU/ANC

GAMBRINUS BLACK SM 10

**GAMBRINUS BLUE 10** 

GAMBRINUS BLUE SM 10

**GAMBRINUS RED 10** 

GAMBRINUS RED SM 10

GAMBRINUS UPE WB SM EN12115

POLIAX UPE CON SM EN 12115

POLIAX UPE CON EN 12115

POLIAX UPE CON SM EN 12115 OND

ISO 1825

JETCORD B ISO 1825

JETCORD C ISO 1825

JETCORD E ISO 1825

JETCORD F ISO 1825

**MSHA APPROVED** 

**JIFFY** 

**NSF 61** 

TE Potable Water PU Hose

**SAE J 1402-A** 

AIRBRAKE SAE J 1402-A

SAE J 20 R2 - D1

E-Z FROM GS

**SAE J 30 R7** 

CARBOPRESS SAE J 30 R7 N/L

**UNI CIG 7140** 

CARBO G NB/R 10

CARBO G NW/L 10

WRAS - DWI

TE Potable Water PU Hose



TH12 Catalogue 4401/UK

# Guidelines to the Use and Cleaning of Food Rubber Hose

The hoses offered in our catalogue are manufactured in accordance with the best production practices, observing the international norms and specifications regulating this sector to guarantee safety, performance, quality and hygiene.

Transport, storage, handling, usage andmedia may contaminate the hose and affect its performance.

Therefore Parker recommends cleaning and sanitizing the hose prior to and after each use to maintain hose efficiency and prevent harmful contamination.

However our suggestions are superseded by specific local government regulations.

### Before the use of Food hose:

- Flush with drinking water at 20 °C for max 10 min
- Cleaning process with detergents/chemicals
- Rinse with drinking water at 20 °C for max 10 min
- Sterilization at 110 °C for max 30 min
- Rinse with drinking water at 20 °C for max 10 min
- Check to determine that all residuals have been eliminated

The frequency depends on the type of food and liquid conveyed and environment condition.

The frequency and time of exposure to detergents/disinfectants may compromise the service life of the hose. Thus we recommend regular inspection of the hose to evaluate its physical conditions.

Product	Compound	Concentration	Temperature				
Hot Water	All	0	Up to 95 °C				
Steam	All	0	Up to 110 °C				
Caustic Soda	All	2 % max 5 % max	85 °C max 25 °C max				
Nitric Acid	NR/SBR	0.1 % max 2 % max	85 °C max 25 °C max				
Chlorine Acetic acid	NR/SBR	1 % max	25 °C max				
Per acetic acid	NR/SBR	1.5 % max	25 °C max				
Phosphoric acid	NR/SBR	2 % max	65 °C max				

For other media pls contact Parker



# Oil and Fuel Compatibility

	Max Ambient temperature	Fuel types											
Hose series	°C	Fuel	Diesel	LPG-CNG	B10	B20	B100	E10	E100				
Autogas ECE 67/110	125	<b>E</b> up to 70°c	E up to 100°c	<b>E</b> up to 70°c	<b>G</b> up to 70°c	<b>G</b> up to 70°c	<b>G</b> up to 70°c	<b>E</b> up to 70°c	<b>G</b> up to 70°c				
Carbocord EN 12115	100	<b>G</b> up to 70°c	<b>E</b> up to 70°c	<u> </u>	<b>G</b> up to 70°c	<b>G</b> up to 70°c	<u> </u>	<b>G</b> up to 70°c	<u> </u>				
Carbocord EN ISO 7840	100	<b>E</b> up to 70°c	<b>E</b> up to 70°c	<u>•</u>	<b>G</b> up to 70°c	<b>G</b> up to 70°c	<u>•</u>	<b>E</b> up to 70°c	<b>G</b> up to 70°c				
Carbopress D EN 1360	55	<b>E</b> up to 50°c	<b>E</b> up to 50°c	X	<b>G</b> up to 50°c	<b>G</b> up to 50°c	<u>•</u>	<b>E</b> up to 50°c	<u> </u>				
Carbopress EN ISO 7840	100	<b>E</b> up to 70°c	<b>E</b> up to 70°c	<u> </u>	<b>G</b> up to 70°c	<b>G</b> up to 70°c	<b>G</b> up to 70°c	<b>E</b> up to 70°c	G up to 70°c				
Carbopress NL	100	<b>G</b> up to 70°c	<b>E</b> up to 70°c	X	<b>G</b> up to 70°c	<b>G</b> up to 70°c	X	<b>G</b> up to 70°c	<u> </u>				
Carbopress SAE J30 R7	125	<b>E</b> up to 70°c	E up to 100°c	<b>G</b> up to 70°c	E up to 100°c	<b>E</b> up to 70°c	<b>G</b> up to 70°c	<b>E</b> up to 70°c	<b>E</b> up to 70°c				
Carburite 10	100	<b>E</b> up to 70°c	<b>E</b> up to 70°c	<u> </u>	<b>G</b> up to 70°c	<b>G</b> up to 70°c	<u>•</u>	<b>G</b> up to 70°c	<u> </u>				
Carburite EN ISO 7840	100	<b>E</b> up to 70°c	<b>E</b> up to 70°c	<u>•</u>	<b>G</b> up to 70°c	<b>G</b> up to 70°c	<u>•</u>	<b>E</b> up to 70°c	<b>G</b> up to 70°c				
Chemioel EN 12115	100	<b>E</b> up to 70°c	<b>E</b> up to 70°c	<u> </u>	<b>G</b> up to 70°c	<b>G</b> up to 70°c	<u>•</u>	<b>G</b> up to 70°c	<b>G</b> up to 70°c				
Gastruck EN 1762 D-M	70	<b>G</b> up to 70°c	<u>•</u>	<b>E</b> up to 70°c	<u>•</u>	<u>•</u>	<u>•</u>	<b>G</b> up to 70°c	<b>©</b>				
Oilpress NL	125	<b>G</b> up to 70°c	<b>E</b> up to 100°c	<b>G</b> up to 70°c	<b>E</b> up to 100°c	<b>E</b> up to 70°c	<b>E</b> up to 70°c	<b>G</b> up to 70°c	<b>E</b> up to 70°c				
Ragusa	100	<b>G</b> up to 70°c	<b>E</b> up to 70°c	X	<b>G</b> up to 70°c	<b>G</b> up to 70°c	<u> </u>	<b>G</b> up to 70°c	<b>©</b>				
Robur GPL	70	<b>G</b> up to 70°c	<u>•</u>	<b>E</b> up to 70°c	<u>•</u>	<u>•</u>	<u>•</u>	<u>•</u>	<u> </u>				
TBSE	100	<b>E</b> up to 70°c	<b>E</b> up to 70°c	<b>G</b> up to 70°c	<b>G</b> up to 70°c	<b>G</b> up to 70°c	X	<b>E</b> up to 70°c	G up to 70°c				
TBE	90	<b>E</b> up to 70°c	<b>E</b> up to 70°c	<u>•</u>	<b>G</b> up to 70°c	<b>G</b> up to 70°c	X	<b>E</b> up to 70°c	<b>G</b> up to 70°c				

The indicate temperature is related to the Media and not to the ambient

Fuel max 50 % Aromatic (Aliphatic /Aromatic + MBTE)

Diesel Std mineral Diesel

LPG-CNG Liquefied petroleum gas or Compressed Natural gas

B10 Biodiesel 10 % in std diesel B20 Biodiesel 20 % in std diesel

B100 Biodiesel 100 %

E10 Ethanol Alchool 10 % in Fuel E100 Ethanol Alchool 100 % E = Excellent
G = Good
□ = Conditional
X = Unsatisfactory



### **Conductive Value Table**

As for ISO 2883

R<10 <sup>3</sup>	Conductive Compound
$10^3 < R < 10^6$	Antistatic Compound
R > 10 <sup>6</sup>	Insulating Compound

### Electrical Properties of Rubber Hose

### **Electrical Conductivity**

Industrial hoses generally fall into

three categories: conductive, nonconductive, or somewhere in-between. Because of its unique properties, it is possible for rubber to be nonconductive at low voltage and conductive at high voltage. When using a hose in an application that has electrical resistance requirements (low electrical resistance for conductive applications or high electrical resistance for nonconductive applications), always select a hose that is specifically designed to meet the specific need. Since conductivity or no conductivity is not a consideration for many applications,

electrical resistance ratings do not

exist for many hoses.

### **Conductive & Antistatic Hose**

Static electricity is generated by the flow of material (even some liquids) through a hose. As the material flows, molecules collide and generate friction, which creates minute amounts of electrical charge (excess electrons). The charge accumulates potential energy at the delivery end the hose (coupling/nozzle). The amount of charge increases with material volume and linear velocity, coarseness of the material, and length of the hose. If not properly grounded, the acumulated charge (potential energy) will seek its own ground. The charge will be attracted to external materials in proximity (such as a steel storage container); if not properly grounded, the electrons may arc (jump) to the external material, igniting volatile materials in the hose, or in proximity to the hose. Electrically conductive wires and conductive rubber components are used in hose to prevent static electricity build-up and discharge as a spark. It is essential that the user determine the need for static bonded hose based on (a) the intended use of the hose, (b) instructions from the company's safety division, (c) the insurer, and (d) the laws of the localities and states in which the hose will be used. Some types of hose include a helical or static wire(s). This wire can be used for electrical continuity provided that proper contact is made and maintained between it and the hose couplings.

#### **Nonconductive Hose**

Nonconductive hose constructions are those that resist the flow of electrical current. In some specific applications, especially around high voltage electrical lines, it is imperative for safety that the hose be nonconductive. Unless the hose is designed particularly to be nonconductive and is so branded, do not conclude that it is nonconductive. Many black rubber compounds are inherently and inadvertently conductive. Nonconductive hose is usually made to a qualifying standard that requires it to be tested to verify the desired electrical properties. The hose is frequently (but not necessarily) non-black in colour and clearly branded to indicate it is designed for nonconductive applications.

### **WARNING!**

Unless a hose is described as, or specifically and clearly branded to be conducting or nonconducting, assume that the electrical properties are uncontrolled.



# **Properties of Basic Rubber Compounds**

This table provides some information on the general properties of the most common rubber compounds. Most compounds used in the manufacture of rubber hose are made of different basic rubbers, each contributing to the physical properties of the finished product.

ASTM D 1418	Chemical Name	Properties
CR	Chloroprene	Excellent weathering and ozone resistance, flame retarding, abrasion resistance. Good resistance to compressed air and to oil.
CSM	Chloro-sulfonyl-polyethylene	Excellent resistance to ozone, weathering and acid, particularly of the coloured compounds. Resistant to petroleum based fluids.
EPDM	Terpolymer of ethylene-propylene-diene	Good resistance to heat, ageing and abrasion. Poor resistance to petroleum based fluids.
EPM	Copolymers of ethylene and propylene	Excellent resistance to heat, ageing, abrasion and ozone. Good resistance to many chemicals; poor resistance to aromatics.
FKM	Fluorine rubber	Excellent resistance to a wide range of chemicals and to heat. Poor physical properties.
IIR	Isobutene-isoprene	Good resistance to chemicals, such as alcohols, ketones and esters.
NBR	Acrylonitrile-butadiene	Excellent oil resistance good aromatics and solvents resistance.
NR	Natural rubber	Good physical properties including abrasion and low temperature resistance. Poor resistance to petroleum based fluids.
SBR	Styrene-butadiene	Good physical properties with resistance to heat and abrasion. Poor resistance to petroleum based fluids.
NBR/PVC	Acrylonitrile-butadiene-vynil-chloride	Good resistance to oil and aromatics. Recommended as hose cover, when a good weathering, ozone and abrasion resistance is required.
UHMWPE	Ultra high molecular weight polyethylene	Excellent abrasion resistance and very low coefficient of friction. Excellent resistance to chemicals, oil and aromatic fuels. Biologically inert and suitable for foodstuffs delivery.



### **Chemical Resistance Table**

The following table is essentially based upon the most updated technical data available, on information from raw material suppliers, as well as some International Standards, e.g. ISO TR 7620, EN 12115, and other publications.

Due to the big variety and amount of different chemical products, the given ratings are only partly based on our own tests. Consequently, the chart is given as a guidance only, and it cannot be assumed as a guarantee, expressed or implied, for the suitability of a product for a specific application. This is due to the widespread range of parameters which are not under our direct control like temperature (internal and external) pressure (constant or peaks) frequency of service and working environment.

For the same reasons, it is impossible to give scientifically based indications concerning service life of hoses, and to determine a generally valid replacement date. This can be verified for instance with periodical hydrostatic tests and a visual check. When in doubt please contact our technical service.

Ratings are based on room temperature.

Parker ITR will cooperate by supplying sampling for tests, and carrying out tests with special chemical products.

#### **WARNING**

The service life of rubber hoses is not endless. Consequently the user must periodically check the suitability of a rubber hose for the intended application, particularly in the presence of dangerous or polluting chemical products or when using the hose at elevated pressures and/or temperatures. Continuous use at the highest allowed pressures and temperatures dramatically reduces the service life of a rubber hose.

After use hose must be emptied out and washed down.

Many chemical products can cause severe injuries to people or damage to property, or risks of environmental pollution if the hose leaks or bursts.

Trade Name	Description				
Butyl	Isobutylene-Isoprene	IIR			
CPE	Chlorinated Polyethylene	СМ			
EPDM	Ethylene-Propylene-Diene	EPDM			
Hypalon	Chlorosulfonated Polyethylene	CSM			
Hytrel *	Thermoplastic Polyester	_			
Natural	Natural Rubber	NR			
Neoprene	Polychloropren	CR			
Nitrile	Acrylonitrile	NBR			
Nylon *	Nylon Polymer	_			
SBR	Styrene-Butadiene	SBR			
Santoprene	Ethylene-Propylene-Diene	EPDM			
Teflon *	Fluorocarbon Resin	TFE			
UHMW	Ultra-High Molecular Weight Polyethylene	_			
Urethane *	Urethane	AU			
Viton *	Floroelastomer	FKM			
XLPE	Cross-Linked Polyethylene	XPE			

\* compounds not in catalogue. Ask Parker for right solution

**KEY** 

E = Excellent

G = Good

C = Conditional

X = Unsatisfactory



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Chemical or	7	ш	M	lon	*	ral	rene	<u>ie</u>	* u	<b>~</b>	rene	* =	M	ane *	* "	Ä
Material Conveyed	Butyl	CPE	EPDM	Hypalon	Hytrel *	Natural	Neoprene	Nitrile	Nylon *	SBR	Santoprene	Teflon *	UHMW	Urethane	Viton *	XLPE
1 UNDECANOL	Е			Е		Е		Е				Е			G	Е
1,4-DIOXANE	G		G	Χ		Χ	Χ	Χ	Е	Χ		Е		Χ	Χ	Е
1-AMINO-2-PROPANOL	Е		0	С		G		G				E			X	
1-AMINOBUTANE	X		С	С		X	X	С		X		E		Χ	X	
1-AMINOPENTANE  1-BROMO-2 METHYL PROPANE	G X		Х	G X		G X	X	C X				E E			X G	
1-BROMO-3 METHYL BUTANE	X		Х	X		X	X	X				E			G	
1-BROMOBUTANE	X		/	X		X		X				E			G	
1-CHLORO-2-METHYL PROPANE	X			X		X		X				E			G	
1-CHLORO-3-METHYL BUTANE	С		Χ	Χ		Χ	Χ	Χ	Е			Е			Е	
1-DECANOL	С			Е		С	Χ	Е				Е			G	Е
1-HENDACONAL		Е														
2 (2AMINOETHYLAMINO) ETHANOL	Е			G		G		G								
2 (2ETHOXYETHOXY) ETHANOL	Е		G	G		С	С	G	Е	G		E		X	G	
2 (2ETHOXYETHOXY) ETHYL ACETATE	G	_	Χ	G		Χ	Χ	С		Χ		Е		Χ	G	
2,4-DI-SEC-PENTYLPHENOL	_	Е	_	_		_	_	_						_	V	
2-AMINOETHANOL  2-CHLORO-1-HYDROXY-BENZENE	Е	С	G	G		G	G	G				Е		С	Х	
2-CHLOROPHENOL	G	G	Х	С	Х	Х	Х	Х	Х	X	Х	Е		Х	Е	G
2-CHLOROPROPANE	X	J	X	X	^	X	X	X	X	X	^	E		X	E	E
2-ETHOXYETHANOL	G		G	С		С	С	G		Х		E		Х	С	_
2-ETHOXYETHYL ACETATE	G	Χ	G	Χ	Χ	Χ	Χ	Χ	G	Χ		Е		Χ	Χ	
2-ETHYL (BUTYRALDEHYDE)	G			Χ		Χ		Χ				Ε			Χ	Ε
2-ETHYL-1-HEXANOL	Е		Е	Е		Е	Е	Е		Е	Е	Е		Χ	Е	Е
2-ETHYLHEXANOIC ACID	С			G		С		С				Е				
2-ETHYLHEXYL ACETATE	Е			Е		Χ		Χ				E			Χ	
2-OCTANONE	G			X		X		X				E			X	
3-BROMOPROPENE 3-CHLORO-2-METHYL PROPANE	Х	G		Χ		Χ	Х	Х				Е			G	
3-CHLOROPROPENE	С	G	Х	X		Χ	Х	G		Е		Е			G	
4-HYDROXY-4-METHYL-2-PENTANONE	E		E	C	С	C	C	X	G	С		E		Х	X	
ACETALDEHYDE	E		E	С	G	Ü	X	X	E	X	Е	E	G	X	/\	Е
ACETAMIDE			E				G						E		Е	_
ACETIC ACID, GLACIAL	G	Е	G	С	Е	Χ	Χ	G	Χ	С	G	Е	Е	Χ	Χ	Е
ACETIC ACID 10 %	Е	Ε	Ε	Ε	Χ	В	В	Χ	Ε	F	В	Ε	Ε	Χ	Ε	Е
ACETIC ACID 30 %			Е				G						Е		G	
ACETIC ACID 50 %	Е	E	Е	Е	С	Χ	С	С	С	Χ	_	G	Е	Χ	G	G
ACETIC ANHYDRIDE	G	Е	G	E	С	С	G	Х	Χ	Χ	G	E	G	X	X	E
ACETIC OXIDE	G	0	В	E	_	X	V	~	Е	С	В	Е	г	G	X	Е
ACETONE ACETONE CYANOHYDRIN	E	G	Е	X C	С	C	X B	X	E	C	E E	E E	E G	X	X	E
ACETONITRILE	E		Е	G		В	E	Ĉ			E	E	G	^	^	_
ACETOPHENONE	G		E	X		X	X	Х		Х	E	F	Х	Х	Х	Х
ACETYL ACETONE	E	G	E	Χ		Χ	Х	Х		Χ	Е	E	Е	Χ	Χ	Е
ACETYL CHLORIDE	Χ	Е	С		Χ		Χ	Χ	Х	Χ	С	Е	G	Χ	G	G
ACETYL OXIDE	Е		G	Χ		С		Χ			G	Е	Е		Χ	Е
ACETYLENE	Е	G	Е	С	G	G	Е	Е	Е	С	Е	Е	Е	G	Е	Е
ACETYLENE DICHLORIDE	С		С	Χ		Χ	Х	Χ				Е			G	
ACETYLENE TETRACHLORIDE	X		X	X		X	X	X		0		E			Е	_
ACROLEIN	Е	_	Е	G		G	С	С		С		Е	Χ	Х		Е
ACRYLIC ACID ACRYLONITRILE	Х	E E	Χ	С		С			Е	С		Е	С	Χ		С
ADIPIC ACID	٨		X E	U		E	Е	Е	С	U		E	U	E	Е	C
AIR +149 °C (+300 °F)	G		G	G		X	G	G		Χ	Е	L	Х	С	L	
ALK-TRI	X		J	X		X	J	X		, ,	_	Е	,,	J	Е	Е
ALLYL ALCOHOL	Е		Е	Е		E	Е	E				E	Е		G	E
ALLYL BROMIDE	Х			Χ		Χ						Е	G		G	G
ALLYL CHLORIDE		G		Χ		Χ		G		G		Е	G		G	G
ALUM	Е	Е	Е	Е		Е	Е	Е	G			Е	Е		Е	Е
ALUMINUM ACETATE (AQ)	G	Е	Е			E	G	G		Χ		Е	E	Χ	Χ	E
ALUMINUM CHLORIDE (AQ) 40 %	G	С	_	_		E	E	G	X	_		_	E	_	_	E
ALLIMINUM FORMATE	E		Е	E		E	Е	Е	G	E		Е	Е	С	E	Е
ALLIMINUM FORMATE	G E		Е	X G		X E	Е	Е	G	G		E E	E E	G	Е	
				G					G					G		
ALUMINUM HYDROXIDE ALUMINUM NITRATE (AQ)	Е	Е	Ε	Е		Ε	Е	E		Е		Е	Е	С	Е	E

 $E = excellent; \ G = good; \ C = conditional; \ X = unsatisfactory$ 



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<sup>\*</sup> compounds not in catalogue. Ask Parker for right solution

Chemical or Material Conveyed	Butyl	CPE	EPDM	Hypalon	Hytrel *	Natural	Neoprene	Nitrile	Nylon *	SBR	Santoprene	Teflon *	UHMW	Urethane *	Viton *	XLPE
Material Conveyed	Ш		ш	Ŧ	Î	S	Nec	Z	ź	0)	ant	Ţ	5	Jret	Ņ	×
ALUMINUM SULFATE (AQ)	E	Е	Е	Е	G	Е	Е	Е	Е	G	E	Е	Е	G	Е	E
ALUMS-NH3-CR-K	E		E	E		E	E	E	С	E		E	E	G		E
AMINES – MIXED	G		G	Χ	G	G		Χ		G				Χ	Χ	
AMINO XYLENE	G		С												С	
AMINOBENZENE		G							С							
AMINODIMETHYLBENZENE	G	С	_	_						_		E				
AMINOETHANE	G		E	С		С	X	Х		С		Е	0	Х	Х	
AMMONIA LIQUID			E				E E						G			
AMMONIUM ANHYDROUS  AMMONIUM CARBONATE (AQ)	Е		E E	G		Е	E	G	G	Е		Е	G	Е	Е	
AMMONIUM CHLORIDE (AQ)	E	G	E	G	Е	E	E	G	u	E	Е	E	Е	G	E	Е
AMMONIUM HYDROXIDE	E	E	E	E			_	a		_		E	E	Х	E	E
AMMONIUM NITRATE (AQ)	E	G	E	E	G	Е	Е	Е	G	Е		E	E	E	E	E
AMMONIUM PHOSPHATE, DIBASIC	Е	Е	Е	Е		Е	Е	Е	Е	Е		Е	Е		Е	Е
AMMONIUM SULPHATE (AQ)	Е	Е	Е	Е	G	Е	Е	Е	G	G		Е	Е	Е	Е	Е
AMMONIUM SULPHITE	Е		Е	Е		Е	Е	Е		Ε		Е			Е	Е
AMMONIUM THIOSULPHATE	Е		E	Ε		Ε	Е	E				Ε			Е	E
AMYL ACETATE	G		Е	Χ	С	Χ	Χ	Χ	G	Χ	Χ	Е	Е	Χ		Е
AMYL ACETONE	G		_	X		X				_	_	E	_		X	E
AMYL ALCOHOL	E	Е	Е	E	Е	E	Е	G	Е	Е	Е	E	Е	Х	Е	Е
AMYL AMINE	G			С		С		С				E			0	
AMYL BROMIDE	V	0	V	. V		V	V		_			E	_	0	G	0
AMYL CHLORIDE  AMYL ETHER	Х	С	Х	X C		Х	Х	С	Е	Х		E E	Е	С	Е	G
ANETHOL	Х	Х		X		Х		C	G			E	G		G	G
ANILINE	E	G	G	X	Χ	X	Х	Χ	C	Х		E	E	Х	С	E
ANILINE DYES	G	a	G	G		G	C	X	X	G		E	E	X	C	E
ANILINE OIL	G	G	C	O.		O.		, ,	, ,	Ŭ.		E	_	X	С	_
ANIMAL FATS	С	-	E	С	G		G	Е	E	Χ	Е	E	Е	С	Ē	E
ANTIMONY CHLORIDES	Е		Ε	G			Χ	G				Е			Е	Е
AQUA REGIA	Χ		G	Χ		Χ	Χ	Χ		Χ		Е	Χ	Χ	Е	Χ
ARGON	G		Е	Χ	Е	Χ	Χ	Е	Е	Χ		Е	Е	Е	Е	Е
AROMATIC HYDROCARBONS													С		Е	
ARSENIC ACID	Е	E	Е	Е		G	Е	Е	G	Е		G	Е	С	Е	Е
ASPHALT	Х	_	Χ	Χ	С	Χ	Х	X	E	Х	Е	E	Х	G	E	Χ
ASTM FUEL A	X	E	X	G	E	X	G	E	E	Х	Х	E	G	G	E	G
ASTM FUEL B	X	G	X	X	E	X	X	Х	E	X	X	E	G	G	Е	G
ASTM FUEL C	X	C E	X	X	E E	X	X G	Е	E E	X	X	E E	G E	0	Е	G E
ASTM OIL NO. 2 ASTM OIL NO. 3	X	Е	X	X G	E	X	C	E E	E	X	X	E	E	G E	E	E
ASTM OIL NO. 4	X		X	X		X	X	G		X	^	_	E	X	E	E
ASTM OIL NO. 1	X	Е	X	G	Е	X	E	E	Е	X	Х	Е	E	E	E	E
AUTOMATIC TRANSMISSION FLUID	X	_	X	С	E	X	G	E	G	Х	Х	E	E	G	E	E
BANANA OIL	,,		G	C	_	, ,	<u> </u>	X	Ŭ.	X	, ,	E	E	O.	_	E
BARIUM CHLORIDE (AQ)	Е	G	Е	Е	G	Ε	Е	Е	G	Ε		Е	Ε	Ε	Е	Ε
BARIUM HYDROXIDE (AQ)	Е	G	Е	Е	G	Е	Е	Е	G	Е		Е	Е	Е	Е	Е
BARIUM SULFIDE (AQ)	Ε		E	Ε		Ε	Е	Ε		G		Е	Ε	Ε	Е	E
BEER	Е		E	Е		Е	G	Е		Е		Е	Е		Е	Е
BEET SUGAR LIQUORS	Е	G	Е	Е	G	Е	G	Е	Е	Е		E	E	Х	Е	E
BENZAL CHLORIDE	G		_		_				_			E	E			E
BENZALDEHYDE	G	0	E	X	G	X	X	X	E	X	X	E	E	X	X	E
BENZENE DENZENE GARROYA/LIQ AGIR	X	С	Х	X	С	Χ	X	X	G	Х	Х	E	G	Х	G	Е
BENZENE CARBOXYLIC ACID	E X		Х	X		Χ	E C	X	G	~		E E		С	E E	_
BENZINE BENZOIC ACID	X		^	٨		X	E	C X	G E	X		E	Е	U	E	E E
BENZOL BENZOL	^	С	Х		С	^	Ľ	X	G	^		E	G		G	L
BENZOTRICHLORIDE		J	Λ.		U			Λ.	u			E	G		u	G
BENZYL ACETATE	Е			G		Х						E	E		Х	E
BENZYL ALCOHOL	G		G	G	С	X	Х	Х	С	Х	Х	E	E	Х	E	E
BENZYL CHLORIDE	X	Χ	X	X		Х	X	Χ		Х		E	E		Е	E
BENZYL ETHER	G		С	Χ		Χ	Χ	Χ		Х		Е		G	Χ	
BIS (2-CLOROETHYL) ETHER	Χ			Χ		Χ		Χ		Χ		Е				
BLACK SULFATE LIQUOR	G	С	G	G	G	G	G	G	С	G		Е	E	Χ	Е	
BLEACH (2 – 15 %)	G		Е	Е	G	Χ	Χ	Χ	С	Χ		Е	E	Χ	Е	G
BORAX SOLUTION  BORIC ACID	Е	G	E	E	E	G	E	G	G	G	_	E	E	E	E	E
	E		Е	Е	Е	Е	E	E	G	Е	Е	Е	E	Е	E	Е

 $\mathsf{E} = \mathsf{excellent}; \, \mathsf{G} = \mathsf{good}; \, \mathsf{C} = \mathsf{conditional}; \, \mathsf{X} = \mathsf{unsatisfactory}$ 



<sup>\*</sup> compounds not in catalogue. Ask Parker for right solution

				ے	*		ē		٠		ne	*		*		
Chemical or Material Conveyed	Butyl	CPE	EPDM	Hypalon	Hytrel *	Natural	Neoprene	Nitrile	Nylon *	SBR	Santoprene	Teflon *	UHMW	Urethane	Viton *	XLPE
BRAKE FLUID (HD-557) 12 DAYS	G	Е	Е	G			G	С	Е	Е	٠,	Е			Х	
BRINE	Е	G	E	Е	G	Е	G	Е	G			Е	Е		Е	Е
BROMACIL	V		E	V		V	V	V		V		_	0	V	_	0
BROMOBENZENE	X	X	X	X		X	X	X		Χ		Е	С	Х	E	С
BROMOCHLOROMETHANE BROMOETHANE	X	Х	G X	X		X	X	X G		Х		E E		Χ	C E	
BROMOTOLUENE	X	Х	^	X		X	^	G		X		E		^	G	F
BUGDIOXANE										^					a	E
BUNKER OIL	Х		Х	Х		Х	Х	Е		Х		Е	Е	G	Е	E
BUTADIENE	X		X	X		X	X	X		X		E	E	X	G	E
BUTANE	Х		Χ	Χ	Е	Χ	С	Е	Е	Х		Е	Е	Χ	Е	Е
BUTANOIC ACID			G	С								Е			G	
BUTANOL (BUTYL ALCOHOL)	G	G	G	Е	G	Ε	Е	Е	G	Ε	G	Ε	Ε	Χ	Е	Ε
BUTANONE	Е	G	Ε	Χ	Е			Χ	G		Χ	G	Ε	Χ		Ε
BUTOXYETHANOL	E		E	Χ		Χ	Χ	С				Ε		Ε		
BUTYL ACETATE	Χ	С	Χ	Χ	С	Χ	Χ	Χ	G	Χ		Χ	Е	Χ	Χ	Е
BUTYL ACRYLATE	Χ		Χ	Χ		Χ	Χ	Χ				Е	G		Χ	G
BUTYL ALCOHOL	G	G	G	Е	G	Е	Е	Е	G	Е	G	Е	Е		Е	Е
BUTYL ALDEHYDE	G		G	С			С				G	Е	Е	С	Χ	Е
BUTYL BENZYL PHTHALATE	Е			Χ		Χ				Χ		Е	Е		С	Е
BUTYL CARBITOL	E		Е	Χ		Χ	С	Χ		Χ		E	E		С	С
BUTYL CELLOSOLVE	Е		G	Χ		Χ	Х	С		Χ	Е	Е	Е		Χ	Е
BUTYL CHLORIDE	С			Χ		Х						E	С	_	Е	G
BUTYL ETHER	X		Χ	X		X	Х	Х		Χ		E	E	G	X	E
BUTYL ETHER ACETALDEHYDE	G			X		X		_	Х			E	E		Χ	E
BUTYL ETHYL ETHER	X		0	X		X		G				E	Е		_	Е
BUTYL OLEATE	G		G	X		X	Х	Х		X		E			E	_
BUTYL PHTHALATE	G		E	X		X	V	0		X		E E		0	С	Е
BUTYL STEARATE BUTYLENE	X		X	X	G	X	X	G E	G	X		E	E	G C	E E	E
BUTYRALDEHYDE	G		C	^	G	X	X	X	G	X			Е	X	X	E
BUTYRIC ACID	G		G	С		X	X	X		X		Е	E	^	G	
BUTYRIC ANHYDRIDE	C		u	G		C	^	C		^		E	_		u	Е
CADMIUM ACETATE	E			E		X						E	Е			E
CALCIUM ACETATE	E			С		E	G	G		Х		E	E	Х	Х	E
CALCIUM ALUMINATE	E			E		E	<u> </u>	E		, ·		E	_	, ,	E	E
CALCIUM BICHROMATE	E			С		_						E			_	G
CALCIUM BISULFIDE			Χ		G		С	Е	G	G		Е		С	Е	
CALCIUM CHLORATE			Е				Е						Е		Е	
CALCIUM CHLORIDE	Е	G	Ε	Е	Е	Ε	Е	Е	Е	Е		Ε	Е	Ε	Е	Ε
CALCIUM HYDROXIDE	Е	G	Е	G	Е	Ε	Е	Е	Е	Ε		Ε	Ε	Ε	Е	Ε
CALCIUM HYPOCHLORITE	Е	G	Е	Е	С	Χ	С	Χ	Χ	Χ		Е	С	Χ	Е	С
CALCIUM NITRATE	Е		Е	Е		Ε	Е	Е	Е	Ε		Ε	Ε	Χ	Е	Ε
CALCIUM SULFIDE	Е	Χ	E	Е		Χ	Е	Е	Е	Χ		Е	Е	Е	Е	Е
CAPRILIC ACID	С			G		С		С				E	Е			E
CARBAMIDE	G		_	E		E	G	G	_	_		E	_			
CARBITOL	E	_	G	G		X	С	G	E	G		E	Е	X	G	E
CARBOLIC ACID (PHENOL)	G	G	X	X		X	X	X	X	X	Χ	E	E	X	E	E
CARBON DIOXIDE	G		G	G		G	G	E	E	G		E	E	E	G	E
CARBON DISULFIDE	X	_	X	X	_	X	X	X	X	X	_	E	E	X	X	С
CARBON MONOXIDE	E	G	E	E	E	C	E	E	E	G	E	E	E	G	Е	Е
CARBON TETRACHLORIDE	X	С	X	Χ	Χ	Χ	Х	С	Χ	Х	Χ	Е	G	Х	E	Е
CARBONIC ACID	Е	Χ	G E	Е	Χ	Е	G	G	G	G	Χ	Е	В	Е	B G	Е
CARBONIC ACID  CASTOR OIL	G	G	G	E	C	E	E	E	G	E	C	E	Е	G	E	E
CAUSTIC SODA (SEE SODIUM HYDROXIDE)	E	G	E	<u> </u>	C	E	E	E	G	E	E	E	E	G	G	
CELLOSOLVE ACETATE	G		G	Х	U	Х	X	Х	G	Х	L	E	Е	Х	X	Е
CELLUGUARD CELLUGUARD	E		E	X		E	E	E	G	E		E	_	E	E	_
CELLULOSE ACETATE	_		_	/\		_	X	_	J	_		_	В	_	С	
CETYLIC ACID	G	G	G	С	Е	Е	G	Е	С	В	Е	Е	ر	Е	E	
CHINA WOOD OIL (TUNG OIL)	X	C	Х	E	G	X	E	E	G	Х	_	E		C	E	
CHLORDANE	X	J	X	С	С	X	С	G	G	X		_		С	E	
CHLORINATED SOLVENTS	X	Х	X	X	J	X	X	X	X	X		Е		Х	E	G
CHLORINE GAS (DRY)							C					_	С		E	J
CHLORINE WATER SOLUTION (MAX. 3 %) + G108													E		_	
CHLORO-2-PROPANONE	Х		Е	Χ		Χ	С	Х		Х		Е		Χ	Χ	
			_													

 $E = excellent; \ G = good; \ C = conditional; \ X = unsatisfactory$ 



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 $<sup>^{\</sup>ast}$  compounds not in catalogue. Ask Parker for right solution

Fig.	Chemical or Material Conveyed	Butyl	CPE	EPDM	Hypalon	Hytrel *	Natural	Neoprene	Nitrile	Nylon *	SBR	Santoprene	Teflon *	UHMW	Urethane *	Viton *	XLPE
CHILOPORDENSHEMOND, DI, TRI	CUI ODOACTIC ACID	0		0							V		Ť				F
OFLICOPOLIENZENIE, MONO, OU, THI  OF CHLOROPOLIANE  OF CHLOROPETHYLE BLOZENE  OF CHLOROPETHYLE  OF CHLOROP						Λ.				Λ.		Λ					
CHLORDENTMENEMER						~			1	Е		~					
OHLOROPENMM				^		^		^			^	^					
CHIOROFORM			V	V					Χ		~						
CHLOROPENTANE  CHLOROSULFONIC AGDI  CHLOROSULFONIC AGDI  X X X X X X X X X X X X X X X X X X X						V		V	V	V		~					
CHLOROMENOLIONIC			^	^		^		^	^	^		^			^		
CH-LIGHOSULFINE		C			Λ		Λ.				Λ		Е				Е
CHURDIOTOLUENE				V	V	V	V	. V	V/	V	V	V	_		\ <u>/</u>		V
CHIORIOX OD   G   G   G   G   G   G   G   G   G			Х			Х				Х		Х					
CHRIDIME PILATING SOLUTIONS																	
CHROMIM TRIONDE									-					G			G
Chi-Homilian Highwide																	
CINNAMENIE																	
CISH-S-OCTADECENDIC ACID    C			Х							Χ		Χ					
COMAL COIL																	
COAL CIN         X<	CIS-9-OCTADECENOIC ACID		Χ	С		Е				Е							
COAL TAR NAPHTHA			Χ			G					Е						
COCONITO	COAL OIL			Χ	С		Χ	G		Е		Χ			С		Е
COCONLT OIL	COAL TAR					Χ		С				Χ		Ε			
COME OVEN GAS	COAL TAR NAPHTHA	Χ		Χ	Χ		Χ		Χ		Χ		Ε		Χ	Ε	Ε
COOPER CYANIDE	COCONUT OIL	G		G	С		Χ	С	Е		Χ		Е	Ε	С		Е
COPPER CAMIDE	COKE OVEN GAS	Χ		Χ	Χ		Χ	Χ	Χ	Е	Χ		С		Χ	Е	Е
COPPER HYDRATE	COOLANOL (MONSANTO)	Χ		Χ	G	Χ	Χ	G	Ε		Χ				Χ	Ε	
COPPER HYDRATE		Е	Χ	Е	G	Е	G	G	Е	С	Е		Е	Е	G	Е	Е
COPPER HYDRATIE	COPPER CYANIDE	Е		Ε	G		Е	Е	Е	G			Е	Е	Е	E	Е
COPPER HYDROXIDE																	
COPPER NITRATE											G			_			F
COPPER SULFATE		_		F	O.		Ü	F	Ŭ.		Ŭ.		_	F			_
CORTONSEED OIL		F	Χ		F	F	G		F	G	G		F		G		F
COTTONSEED OIL   C   G   C   G   C   X   X   X   X   X   X   X   E   E   E												F					
CRESOSTE			G						•			_					
CRESOLS			G			_											
CRESYLIC ACID						~			1			~					
CROTONALDEHYDE						^				^		^					
CRUDE OIL  CLUMENE  X																	
CUMENIC CARBONATE		⊏			Χ		Λ			_							
CUPRIC CARBONATE  E					\ /				1	E							
CUPRIC HYDROXIDE  CUPRIC SULFATE  E  E  E  E  E  E  E  E  E  E  E  E				Χ							Х				Х		
CUPRIC NITRATE         E								E						E			E
CUPRIC SULFATE  CUTTING OIL  X X X X X X X X X X X X X X X X X X				_				_						_			_
CUTTING OIL											_						
CYCLOHEXANE         X         X         X         X         X         B         X         X         G         G         X         X         E         E         E         G         E         E         G         E         C         C           CYCLOPENTANON         X         X         X         X         X         X         X         X         X         X         X         X         X         X														E			E
CYCLOHEXANOL         X         X         B         X         G         G         X         X         E         C         C         C         C         C         A         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1</td><td>_</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									1	_							
CYCLOHEXANONE         X         C         X         X         X         X         E         E         X         X         E         C         C         C         C         C         C         X         <						Е									G		
CYCLOPENTANE         X         X         X         X         X         X         X         E         G         X         E         E         E         E         G         E         E         G         E         C         X         X         X <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>																	
CYCLOPENTANOL         X         X         X         X         X         X         X         E         G         E         C         C         X         <										G	Х	Χ			Χ		
CYCLOPENTANONE         X         X         X         X         X         X         X         E         X         E         G         C         C         C         C         C         C         X         X         X         X         X         X         X         E         E         G         E         E         G         E         E         G         E         C         C         X         X         X	CYCLOPENTANE			Χ				Е					Е				
CYCLOPENTYL ALCOHOL         X         X         X         X         X         X         X         X         E         G         E         G         E         G         E         G         E         G         E         G         E         G         E         G         E         G         E         E         G         E         E         G         E         E         G         E         E         G         E         E         G         E         E         G         E         E         G         E         E         G         E         E         G         E         E         D											Χ			Е			
DDT IN DEIONIZED KEROSENE	CYCLOPENTANONE				Χ		Χ		Χ				Е				
DECAHYDRONAPTHALENE         X         X         X         X         X         X         X         E         X         E         X         E         X         E         X         E         X         E         X         E         X         E         X         X         E         X         X         E         X         X         E         X         X         E         E         X         X         X         E         E         X         X         X         E         E         X         X         E         E         X         X         E         E         X         X         E	CYCLOPENTYL ALCOHOL	Χ							G					Ε			Ε
DECAHYDROXYNAPTHALENE         C         U	DDT IN DEIONIZED KEROSENE	Χ		Χ	Χ		Χ	С	Ε	Ε	Χ		Ε		G	Е	Ε
DECALIN         X         X         X         X         X         X         X         X         X         X         E         X         X         E         E         G         E         X         X         E         E         G         E         E         G         E         E         G         E         E         E         G         E </td <td>DECAHYDRONAPTHALENE</td> <td>Χ</td> <td></td> <td>Χ</td> <td>Χ</td> <td></td> <td>Χ</td> <td>Χ</td> <td>Χ</td> <td>G</td> <td>Χ</td> <td>Χ</td> <td>Ε</td> <td></td> <td>Χ</td> <td>Е</td> <td></td>	DECAHYDRONAPTHALENE	Χ		Χ	Χ		Χ	Χ	Χ	G	Χ	Χ	Ε		Χ	Е	
DECYL ALCOHOL         X         Image: color of the col	DECAHYDROXYNAPTHALENE		С														
DECYL ALDEHYDE         C         X         X         X         X         X         E         E         X         E         E         X         E         E         E         C         E         E         C         E         E         E         C         E	DECALIN	Χ		Χ	Χ		Χ	Χ	Χ	G	Χ	Χ	Ε	Χ	Χ	Ε	Е
DECYL ALDEHYDE         C         X         X         X         X         X         E         E         X         E         E         X         E         E         E         C         E         E         C         E         E         E         C         E	DECYL ALCOHOL	Χ			Е		Χ	Χ	Е				Е	Е		G	Е
DECYL BUTYL PHTHALATE         E         X         X         X         X         X         E         E         C         E           DECYL CARBINOL         E         E         E         E         E         E         E         E         E         E         G         G         E         E         E         G         G         E         E         G         E         E         G         E         E         G         E         E         G         E         E         G         E         E         G         E         E         G         E         E         G         E         E         G         E         E         G         E         E         G         E         E         G         E         E         G         E         F         G         E         F         F         G         E         F	DECYL ALDEHYDE	С											Е	Е		Χ	
DECYL CARBINOL         E         E         E         E         E         E         E         G         G         E         G         G         G         E         G         G         E         G         G         E         G         G         E         G         G         E         G         G         X         X         X         X         X         X         X         G         E         G         E         G         G         X         X         X         X									Χ								
"DETERGENT, WATER SOLUTION"  E  G  G  G  G  G  E  G  G  G  E  G  E  G  E  G  E  G  E  G  E  G  E  G  E  G  E  G  E  G  E  G  E  E																	
DEVELOPING FLUID (PHOTO)         G         G         E         X         E         E         E         G         E         G         E           DEXTRON         X         X         X         X         X         X         X         G         E         X         X         G         E         X <td< td=""><td></td><td></td><td></td><td>Е</td><td></td><td>G</td><td></td><td>G</td><td></td><td></td><td>G</td><td></td><td></td><td>Е</td><td>G</td><td></td><td></td></td<>				Е		G		G			G			Е	G		
DEXTRON         X         X         X         X         X         X         G         E         X         G         E           DI(2ETHYLHEXYL) ADIPATE         E         G         X         X         X         X         X         X         X         E         C         C           DI(2ETHYLHEXYL) PHTHALATE         G         G         X         E         X         X         E         X         E         X         G         E         X         G         E         X         X         X         E         X         X         G         E         X         X         X         X         X         E         E         X         X         X         X         X         E         E         X					Е		Е										
DI(2ETHYLHEXYL) ADIPATE         E         G         X         X         X         X         X         E         C         C           DI(2ETHYLHEXYL) PHTHALATE         G         G         X         E         X         X         E         X         E         X         G         D	, ,												_		G		
DI(2ETHYLHEXYL) PHTHALATE         G         G         X         E         X         X         E         X         E         X         G           DIACETONE ALCOHOL         E         E         E         E         X         C         X         X         X         E         E         E         X         X         C           DIACETYLMETHANE         E         G         E         X         X         X         X         X         E         E         X         X           DIALLYLPHTHALATE         G         C         X         <									1		^\		F		J		
DIACETONE ALCOHOL E E X C X X X X E E X X C DIACETYLMETHANE E G E X X X X X X X X X X X X X X X X	,					F				F	X				X	-	
DIACETYLMETHANE E G E X X X X X E E X X X DIALLYLPHTHALATE	,									_				F			_
DIALLYLPHTHALATE G G G			G			J						Е		_			J
					^		^	^	^		^	E			^	^	
	DIAMMONIUM PHOSPHATE	Е	E	Е	Е		Е	Е	Е		Е		Е			Е	

E = excellent; G = good; C = conditional; X = unsatisfactory



<sup>\*</sup> compounds not in catalogue. Ask Parker for right solution

Chemical or Material Conveyed	L C E E E E E E E E E E E E E E E E E E
DIAMYL NAPTHALENE	E
DIAMYL PHENOL	E
DIAMYLENE	E
DIBENZYL ETHER	X
DIBROMOBENZENE	E
DIBROMOMETHANE	G
DIBUTYL ETHER	X
DIBUTYL PHTHALATE	C E E E G E G E G E G
DIBUTYL SEBACATE         G         G         G         X         G         X         X         X         X         E         E         X           DIBUTYLAMINE         X         X         X         X         X         X         X         X         X         X         X         X         E         C         X         X         X         X         X         X         X         X         X         X         X         X<	E E E E G E G E G E G E E G E E G E E G E E G E E E G E E E E G E
DIBUTYLAMINE         X         X         X         X         X         X         X         X         X         E         C         C         C         E         E         D         C         C         C         C         C         C         C         C         C         X <t< td=""><td>X E E C G E G</td></t<>	X E E C G E G
DICALCIUM PHOSPHATE         E         C         E         D         E         E         C         X	E E G E G E G
DICHLORO DIFLUORO METHANE         X         C         C         E         E         X         G         C         G         E         E         C         G         E         C         C         X         E         C         C         C         X <td>G G E G G G</td>	G G E G G G
DICHLORO ETHYLENE         C         X         X         X         X         X         C         X         E         C           DICHLOROACETIC ACID         C         X         X         G         X         E         E         E         C           DICHLOROBUTANE         X         C         X         X         X         X         X         X         E         E         E         X           DICHLOROETHANE         C         X         X         X         X         X         X         X         X         E         X         X         E         X	G X E E C G E
DICHLOROACETIC ACID         C         W         X         G         W         X         E         E         E         C           DICHLOROBUTANE         X         C         X         X         X         X         X         E         E         E         X           DICHLOROETHANE         C         X </td <td>X E C G E</td>	X E C G E
DICHLOROETHANE         C         X         X         X         X         X         X         X         X         X         X         E         X         X         E         X	E (G E
DICHLOROETHYL ETHER         X         X         X         X         X         X         X         E         E         E         DICHLOROFLUOROMETHANE         X	G
DICHLOROFLUOROMETHANE         X	G
DICHLOROHEXANE         X         X         X         X         X         X         X         E         X           DICHLOROPROPANE         X         X         X         X         X         X         X         X         X         X         X         X         X         E         E         E         E         E         E         E         E         E         E         E         E         E         E         C         X         X         E         X	
DICHLOROMETHANE         X         C         X	
DICHLOROPENTANE         X	E E
DICHLOROPROPANE         X         X         X         X         X         X         X         E         E         E         E         DICHLOROPROPENE         Image: Control of the c	G E
DICHLOROPROPENE DICHLOROTOLUENE  X  X  C  G  X  C  C  C  C  C  C  C  C  C  C  C  C	E E
DICHLOROTOLUENE X	E E
DIESEL OIL X E X C G X C E E X X E E C	E E
DIETHANOLAMINE   E   C   X   G   I   G   X   I E   E	E (
DIETHYL ETHER X X X C X X X E E E	X
DIETHYL KETONE G E X X X E	X E
DIETHYL OXALATE X X X X X X E E E	C E
DIETHYL SEBACATE G G C E X X X X E E X	G
DIETHYL SULFATE G E X X E X E E X	X
DIETHYL TRIAMINE E C G G E	^
DIETHYLAMINE G G C G E E C	Х
DIETHYLBENZENE X X X X X X E E E X	E E
DIETHYLENE GLYCOL E E E E E E E E E E E E E	Е (
DIETHYLENE OXIDE X E E	
DIETHYLENE TRIAMINE E E C G X	
DIHYDROXY DIETHYL ETHER E E E E E E	Е
DIHYDROXY SUCCINIC ACID G G E E C G E	Е
DIISOBUTYL KETONE G E X X X X X E E X	X E
DIISOBUTYLENE X X X X C E X E X	E E
DIISODECTYL PHTHALATE E E X X X E E	C E
DIISODECYL PHTHALATE E E X X X X E	С
DIISOOCTYL ADIPATE E X X X X E E	C E
DIISOOCTYL PHTHALATE E G X X E E E	C E
DIISOPROPANOLAMINE E C G G E	V .
DIISOPROPYL ETHER         X         X         C         X         X         G         X         E         G           DIISOPROPYL KETONE         E         E         X         X         X         X         X         X         X         X         X	X E
DIISOPROPYL KETONE  E E X X X X X E X DIMETHYL PHTHALATE  G G X E X X X X X X G E X	E E
DIMETHYL SULFATE G X X X X X G E E X X X X G E E X X X X	X
DIMETHYL SULFIDE C X X X E	^
DIMETHYLAMINE G X X X E E	X E
DIMETHYLANILINE X C G X X X X E G X	X
DIMETHYLBENZENE X C X X X X X G X X X E X	E
DIMETHYLBUTANE G	
DIMETHYLCARBINOL E G E E G E E	Е
DIMETHYLFORMAMIDE G E	Х
DIMETHYLKETONE E G E X C X X E C E E E X	Х
DIOCTYL ADIPATE E G X X X X E E E	С
DIOCTYL PHTHALATE G G X E X X X E X E X	G E
DIOXALANES X G X X X X X E E X	X E
DIOXANE G G X X X X E X E E X	X E
DIPENTENE X X X X X G X E X	Е
DIPENTYLAMINE E E C G G X E X	X

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 $\mathsf{E} = \mathsf{excellent}; \ \mathsf{G} = \mathsf{good}; \ \mathsf{C} = \mathsf{conditional}; \ \mathsf{X} = \mathsf{unsatisfactory}$ 



Catalogue 4401/UK

 $<sup>^{\</sup>ast}$  compounds not in catalogue. Ask Parker for right solution

Chemical or	Butyl	CPE	EPDM	Hypalon	Hytrel *	Natural	Neoprene	Nitrile	Nylon *	SBR	Santoprene	Teflon *	UHMW	Urethane *	Viton *	XLPE
Material Conveyed	ā	S	岀	H	Į	Na	Neo	Ž	Ŋ	S	anto	Tef	5	Jret	Vit	×
DI-P-MENTHA-1,8-DIENE	Χ		Χ	Χ		Χ	Χ	G		Χ	(C)	Е		X	Е	
DIPROPYLAMINE	Е			С		G		G				Е				
DIPROPYLENE GLYCOL	Е			Е		Е		Ε				Е			Е	
DISODIUM PHOSPHATE	Е		Е	Е		Е		Е				Е	Е	Е	Е	Е
DIVINYL BENZENE	Χ	_		Χ		Χ				Χ		Е	Е		Е	Е
DOWELL INHIBITOR		G														
DOWFAX 2A1 SOLVENT DOWFAX 2A1 TA		E E														
DOWFAX 2AT TA DOWFAX 6A1 SOLVENT		G														
DOWFAX 6A1 TA		E														
"DOWTHERM, A AND E"	Х	X	Х	Х	G	Х	Х	Х	Х	Х		С	Е	Х	Е	Е
DRY CLEANING FLUIDS	Χ		Χ	Χ			Χ	С		Χ		E		Χ	E	
DUCGKIRIOEBAANE	Х															
DURO AW16, 31			Χ					Ε	Е			Ε				
DURO FR-HD			Χ					Ε	Ε			Ε				
EHTYL BUTYL ACETATE	Е			G		Χ		Χ				Е	Е		Χ	Е
EHTYL DICHLORIDE	С		С	Χ		Χ	Χ	Χ		Χ		Е		Χ	G	G
EHTYLENE DIBROMIDE	Χ		С	Χ		Х	Χ	Χ		Χ		Е	G	Χ	G	G
EPICHLOROHYDRIN	0	_	С	0	0	\ <u>'</u>	0	0	0	0	0	_	В	V	V	
ETHANOIC ACID	G	E	E	С	С	X	G	С	С	G	С	E	_	X	X	_
ETHANOL (GRAIN ALCOHOL)  ETHANOLAMINE	E G	G	E G	E X	Е	E G	E G	E G	Х	E X	Е	E E	E E	X C	C X	E
ETHERS	X	G	C	X	Х	X	X	X	Е	X		E		X	X	
ETHYL ACETATE	G	G	E	X	Ĉ	X	X	X	E	X	Е	E	Е	X	X	С
ETHYL ACETOACETATE	G	G	G	X	O	C	X	X	_	C	_	E	E	^	X	E
ETHYL ACETONE	G		G	X		X	X	X		X		E	_		X	_
ETHYL ACRYLATE	G		G	Χ		Χ	Χ	Χ		Χ		Е	Е	Χ	Χ	G
ETHYL ALCOHOL	Е	G	Е	Е	Е	Е	Е	Ε	Χ	Е	Е	Е	Е	Χ	Е	Е
ETHYL ALDEHYDE	G		Е	С		Χ	Χ	Χ				Ε	Ε	С	Χ	E
ETHYL ALUMINUM DICHLORIDE	Χ			Χ		Χ		Χ				Е			G	G
ETHYL BENZENE	Χ		Χ	Χ		Χ	Χ	Χ		Χ		Е	Е	Χ	Е	Е
ETHYL BROMIDE	Χ		Χ	Χ		С	Χ	G		Χ		Е		Χ	Е	
ETHYL BUTANOL	Е			Е		E		E				E	Е		G	E
ETHYL BUTYL KETONE	G		_	X	_	X		X	0	_		E	_	0	X	E
ETHYL CELLULOSE	G E	Χ	G E	G C	G X	G C	G X	G E	C E	G G	Χ	E E	E G	G C	X E	E G
ETHYL CHLORIDE  ETHYL DIISOBUTYLTHIO-CARBAMATE	E	Χ	E	C	Χ	E	Α	E	E	E	Χ	⊏	E	C	Е	E
ETHYL ETHER	Х	G	Х	Х		X	Х	Х	Е	X		Е	E	С	Х	E
ETHYL FORMATE	G	G	G	G		X	G	X	_	X		E	E	O	E	E
ETHYL IODIDE	С		С	X		Χ	X	Χ				E	G		G	E
ETHYL OXALATE	Χ		С	Χ		С	Х	Х		Χ		Е	Е	Е	Е	Е
ETHYL PHTHALATE	Е			Χ		Χ		Χ				Ε	Е			
ETHYL SILICATE	E		Ε	G		G	Ε	Ε		G		Ε	Ε	Χ	Ε	Ε
ETHYLAMINE	G		Е	С		С	Χ	Χ		С		Е	Е	Χ	Χ	
ETHYLENE			_										E		Е	
ETHYLENE BROMIDE			С										В		G	
ETHYLENE CHI OPOLIVERIN	0		_	0		С	0	~				Е	G		G E	Г
ETHYLENE CHLOROHYDRIN ETHYLENE DIAMINE	G E		G E	C G		G	G E	X G		G		E	E E	Х	X	E
ETHYLENE DIBROMIDE				G		G		G		G			В	^	E	
ETHYLENE DICHLORIDE	С	Х	Х	С	Х	Х	Х	Х	С	Х	Х	Е	G	Х	G	G
ETHYLENE G MONOETHYL E ACETATE	E	Λ.	E	X	^	C	X	C	J	^	^	E	J	X	E	J
ETHYLENE G. MONOBUTYL ETHER	E		E	C		Х	C	С		Х		E		X	X	Е
ETHYLENE G. MONOHEXYL ETHER	_			-		·										E
ETHYLENE G. MONOMETHYL ETHER	Е		G	G		Х	Е	С				Е			Χ	Е
ETHYLENE GLYCOL	Е	G	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	G	Е	С
ETHYLENE OXIDE	Χ	Χ	С	Χ	Е	Χ	Χ	Χ	G	Χ		E		Χ	Χ	
FATTY ACIDS	Χ		Χ	С	G	Χ	G	Е	Е	Χ	Χ	Е	Е	С	Е	Е
FERRIC BROMIDE	E			E		E		E	_			E	E	_	E	
FERRIC CHLORIDE	E	Χ	E	E	G	E	E	E	С	E		E	E	E	E	E
FERRIC NITRATE	Е	V	E	Е	_	E	E	E	E	E		E	E	E	E	E
FERRIC SULFATE	E	Х	Е	E	Е	E	Е	E	Е	Е		E	Е	G	E	E
FERROUS ACETATE	Е		_	E		X E	0	X E	г			E E	Г	0	X E	E
FERROUS CHLORIDE FERROUS SULFATE	G E		E E	G E	E E	E	G E	E	E E	Е		E	E E	G E	E	_

E = excellent; G = good; C = conditional; X = unsatisfactory



<sup>\*</sup> compounds not in catalogue. Ask Parker for right solution

			5	uo	*	<u>a</u>	ene	Φ_	*		ene	*	3	* •	*	111
Chemical or Material Conveyed	Butyl	CPE	EPDM	Hypalon	Hytrel *	Natural	Neoprene	Nitrile	Nylon *	SBR	Santoprene	Teflon *	UHMW	Urethane	Viton *	XLPE
FLUOBORIC ACID	G		Е	Е		Е	Е	Е		Е		Е	С	Χ	Е	С
FLUORINE	Χ		Е	Χ	Χ	Χ	Χ	Χ	Χ			G	Χ	Χ	Е	Χ
FORMALDEHYDE	Е	G	E	G	С		G	С	Е	С	Е	Е	Е	Χ	Е	Е
FORMALIN	E	G	Е	G	С	_	G	С	Е	С	Е	Е		Х	Е	Е
FORMIC ACID	E	Х	E	E	С	С	E	С	X	E	E	E	Е	X	X	С
FREON 13	X	0	X	E E	E E	X	E E	Е	X	G	X	E E		G E	G G	
FREON 12 FREON 22	C X	C	C E	E	X	С	E	E X	G G	E E	X	E		X	C	
FREON 502	E	C	E		^	E	E	G	E	E	^			^	G	
FUEL A (ASTM)	X	Е	X	G	Е	X	G	E	E	X	Х	Е	G	G	E	G
FUEL B (ASTM)	X	G	X	X	E	X	X	X	E	X	X	E	G	G	E	G
FUEL C (ASTM)			Χ				С						G		E	
FUEL OIL	Х	Е	Χ	С	G	Χ	G	Е	G	Χ		Е	Е	С	Е	Е
FURALDEHYDE	Е	Е	G	С	G	Χ	С	Χ	С	Χ	Ε	Е		Χ	Χ	
FURAN	Χ		Χ	Χ		Χ	Χ	Χ		Χ		Ε		Χ	С	
FURFURAL	Е	Е	G	С	G	Χ	С	Χ	С	Χ	Ε	Е	Е	Χ	Χ	Е
FURFURAN	Χ		Χ	Χ		Χ	Χ	Χ		Χ		Е		Χ	С	
FURFURYL ALCOHOL	G		G	Χ	G	Χ	Χ	Χ	G	Χ	Е	Е	E	Х	С	Е
GALLIC ACID	G		G	G	Χ	E	G	G	G	G		E	Е	X	E	С
GALLOTANNIC ACID	G		E	E	_	E	Е	E				E		Е	E	
GAS, 100 OCTANE	Х		X	Χ	E	Х	С	E	G	Х	Х	Е	С	С	E	
GAS, COAL GASOLINE	V	_	E	V	G E		E	X	E	V		_	0	G	E	0
GLACIAL ACRYLIC ACID	Х	Е	Х	Χ		Х	Χ	Е	G	Х		Е	G	С	G	G E
GLUCONIC ACID	С			G		Х		С				Е	E			
GLUCOSE	E		Е	E	G	E	G	E	G	Е		E	E	С	Е	Е
GLYCERINE	E	Е	E	E	E	E	E	E	G	E	Х	E	A	C	E	С
GLYCEROL	E	E	E	E	E	E	E	E	G	E	X	E		С	E	
GLYCOGENIC ACID	С			G		Х		С				Ε				
GLYCOLS	Е		Е	Е	С	Е	Е	Е	G	Е	G	Е	Е	Χ	Е	Е
GLYCONIC ACID	С			G		Χ		С				Е	Ε			
GLYCYL ALCOHOL	Е	Е	Е	Е	Е	Е	Ε	Ε	G	Ε	Χ	Е		С	Е	
GREASE, PETROLEUM BASE	Χ	Е	Χ	Χ	E	Χ	С	Е	E	Χ	Χ	E	Е	E	Е	G
GREEN SULFATE LIQUOR	Е		Е	G	Χ	G	G	G	Χ	G		Е	Е	Е	Е	Е
HALON 1211	_		_	_		_	E	E	_	_		_		_	_	
HELIUM LIEDTAL DELIVEE	E		Е	E		E	Е	E	Е	Е		E		Е	E X	
HEPTALDEHYDE HEPTANAL	X			X		X		E E				E E	Е		X	Е
HEPTANE	X	Е	Х	G	G	X	G	E	Е	X		E	E	G	E	G
HEPTANE CARBOXYLIC ACID	C	_		G	a	X	u	С	<u> </u>			E		a		a
HEPTANOIC ACID	Ü	Е		G		Λ.		Ü				_				
HEPTANONE		С														
HEXADECANOIC ACID	G	G	G	С	Е	Е	G	Е	С	В	Е	Е		Е	Е	
HEXALDEHYDE	G		Ε	С		Χ	Е	Χ		Χ		Е	Е	G	Χ	Е
HEXANE	Χ		Χ	Е	Е	Χ	Е	Ε	Е	Χ	Ε	Е	G	G	Е	G
HEXANOL	С		G	G		Е	G	Ε		Ε		Ε	Ε	Χ	Ε	Ε
HEXENE	Χ		Χ	G		Χ	G	G		Χ		Е		G	Е	Е
HEXYL ALCOHOL	С		G	G		Е	G	G		Е		Е	Е	Χ	G	Е
HEXYL METHYL KETONE	G			X		X		X				E			Х	Е
HEXYLAMINE	G		-	С		С	_	С				E			X	
HEXYLENE GLYCOL HISTOWAX	Е		С	Е		E	Е	E				Е			Е	
HYDRAULIC OIL, PETROLEUM		E E	Χ	G	Е	Χ	G	E	E		Χ	Е	Е		Е	Е
HYDRAULIC OIL, PETROLEUM  HYDRAULIC FLUID (PHOSPHATE ESTER BASE)			E	G		^	X				^		X		E	
HYDRAULIC FLUID (POLYALKYLENE GLICOL BASE)			C				G						E		E	
HYDRAZINE	Е		E	G	Х	Χ	G	G	Х	G		Е	_		E	
HYDROBROMIC ACID	E	Х	E	E		E	Х	X	X	X		E	G	Х	E	С
HYDROCHLORIC ACID	E	X	С	C	С	С	C	C	C	X	Е	E	E	C	G	E
HYDROCYANIC ACID	G	X	E	E	X	G	G	G	X	G	E	E	E	X	E	_
HYDROFLUORIC ACID	G	Χ	С	Е	Χ	С	С	С	Χ	С	Χ	Е	Е	Χ	G	С
HYDROFLUOSILICIC ACID	E	Х	E	Е	G	E	G	G	Χ	G		Е	G	С	E	С
HYDROGEN CHLORIDE ANHYDROUS		Е														
HYDROGEN DIOXIDE (10 %)	С		G	G		G	Χ	С				Е			Е	
HYDROGEN GAS	Е	С	Е	Е	Е	G	Е	Е	Е	G		Е	Е	Е	Е	Е
HYDROGEN PEROXIDE 10 %	G		G	Е	X	G	X	С	G	С		E	G	G	E	G
HYDROGEN PEROXIDE OVER 10 %	X	Χ	С	G	Χ	Χ	Χ	Χ	Χ	Χ		Е	Е	С	Е	С

 $E = excellent; \ G = good; \ C = conditional; \ X = unsatisfactory$ 



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 $<sup>\</sup>ensuremath{^*}$  compounds not in catalogue. Ask Parker for right solution

Chemical or Material Conveyed	Butyl	CPE	EPDM	Hypalon	Hytrel *	Natural	Neoprene	Nitrile	Nylon *	SBR	Santoprene	Teflon *	UHMW	Urethane *	Viton *	XLPE
LIVERDOOFN OUR FIRE ANETS		V				V		0		V	Š					
HYDROGEN SULFIDE (WET) HYDROXY BENZENE	E G	Х	E C	E C	Е	X	E X	C	Х	Х		E E	Е	C	C E	Е
HYDROXYISOBUTYRONITRILE	G	Е	C	C		^	^	^						C		
HYDROXYTOLUENE		E														
HYVAR XL		_	Е													
IMINODI-2-PROPANOL		Е	_													
IMINODIETHANOL		Е														
IODINE	G		G	G		Χ	Χ	G	Ε	G		Е	G	Χ	Ε	С
IODINE PENTAFLUORIDE	Χ		Χ	Χ		Χ	Χ	Χ		Χ		Е	С	Χ	Χ	С
IODOFORM			Χ			Χ	Χ	Е		Χ						
ISOBUTANAL		G														
ISOBUTANE							Χ						Е		Е	
ISOBUTANOL (ISOBUTYL ALCOHOL)			E				Е						E		Е	
ISOBUTYL ACETATE	_		С	_		_						_	В			
ISOBUTYLAMINE	E			С		С		X				E			X	
ISOBUTYLBROMIDE	X		_	X		X	_	X				E		0	G	
ISOBUTYLCARBINOL	Е		E	Е		Е	Е	Е				Е	Г	С	E E	
ISOBUTYLENE ISOCYANATES					G			G	G				E E	G	G	Е
ISOCTANE	Х	Е	Х	G	E	Χ	G	E	E	Х	Х	Е	E	G	E	E
ISOPROPANOL	^		E	G		^	E			^	^		E	G	E	
ISOPROPYL ACETATE	G		G	Х	С	Χ	X	Х	G	Χ		Е	E	Χ	X	Е
ISOPROPYL ALCOHOL	E		E	E	E	E	G	E	E	E		E	E	X	E	E
ISOPROPYL ETHER	X		X	С		X	X	G		X		E	E	G	X	E
JET FUELS	X		X	Х		X	X	E	С	X	Х	E	E	C	E	E
JP-4 OIL	X		X	X	Е	X	X	E	С	X	X	E	_	С	E	_
KEROSENE	X	G	X	Х	E	X	C	E	E	Х	X	E	Е	G	E	Е
KETONES	G	G	Е	С	X	С	X	X	E	G	Х	E	E	X	X	
LACQUER SOLVENTS	X	C	X	Χ	С	Х	Χ	Χ	E	X		E	G	Х	Χ	G
LACTIC ACID - COLD	Е	Χ	Е	Е	Χ	Е	Е	Е	Е	Е		Е	Е	G	Е	Е
LACTIC ACID – HOT			Χ	С	С	Χ	Χ	Χ	Χ	Χ		Е			Е	
LARD	С		G	G	G	Χ	G	Е	Ε	Χ	Ε	Ε	G	С	Е	С
LAVENDER OIL	Χ		Χ	Χ		Χ	Χ	G		Χ		Ε	G	Χ	Е	G
LEAD ACETATE	Е		Ε	С		Ε	G	G		Χ		Ε	Ε	С	Е	Ε
LEAD NITRATE	E		Е	С		Ε	Е	Е		Ε		Е			E	
LEAD SULFATE	Е		Е	Е	G	Е	G	Е	G			Е	E		Е	Е
LIME	Е		Е	Е	G	Е	Е	Е	G			Е		G	Е	
LIME BLEACH	E		Е	G		Е	G	E		Е		E	_		E	_
LIME SULFUR, WET	E		С	G		С	E	E				E	Е		E	Е
LIMONENE	X		X	X		X	X	X				E			E	
LINOLEIC ACID	X G	0	X C	X	_	X	C E	G E	Г	X		E E	Г	_	G	Е
LINSEED OIL LIQUID PETROLEUM GAS	G	G	C	G	G	^	С		Е	^			E E	G	E E	
LIQUID SOAP			Е				E						В		E	
LUBRICATING OILS, SAE	Х	G	X	Х	Е	Х	С	Е	Е	Х	Х	Е	E	Е	E	Е
LYE SOLUTIONS	E	С	E	E	С	E	E	С	G	G	C	E	<u> </u>	G	G	_
MEX	G	С	E	X	С	X	X	Х	E	X	X	E	Е	X	X	Е
MAGNESIUM ACETATE	E		E	Е		Χ	Χ	Χ		Χ		E		Χ	Χ	E
MAGNESIUM CARBONATE			Е				Е						G		Е	
MAGNESIUM CHLORIDE	Е	G	Е	Е	G	Е	Е	Е	Е	Ε		Е	Е	Е	Е	Ε
MAGNESIUM HYDRATE	Е		Ε	Е		Е	G	G				Е	E	Ε	G	
MAGNESIUM HYDROXIDE	Е	G	Е	Е	С	Ε	Е	Е	Е	G		Е	Е	С	Е	Ε
MAGNESIUM SULFATE	Е	G	Ε	Е	G	G	Е	Е	Ε	G		Ε	Е	С	Е	Ε
MAGNESIUM SULFITE	Е		Е	Е		G	Е	Е		G					Е	
MALEIC ACID	Χ		Е	Χ		Χ	Χ	С		Χ		Е	Е	С	Е	G
MALEIC ANHYDRIDE	Χ		Χ	Χ		Χ	Χ	Χ		Χ		Е			Е	
MALIC ACID	Χ		X	G		E	G	Е	Е	G		Е	E		E	
MANGANESE SULFATE	G		E	Е		G	E	E				Е	Е	Е	Е	E
MAPP		_	G				E	E	_	G				_	_	
MERCURY	E	G	E	E	Е	E	Е	E	Е	E		E	Е	Е	E	Е
MERCURY VAPORS	E		E	E		С	С	E		E		E	_		E	_
MESITYL OXIDE	С		G	X		X	Х	X		Х		E	Е	Х	X	E
METHALLYL ALCOHOL	Е	_		E		E		Е				E			G	E
METHALLYL CHLORIDE		С	V				0						г		г	
METHANE METHANE CARROYYLIC ACID			Х				G		TIC A	JID			Е		Е	
METHANE CARBOXYLIC ACID  E = excellent: G = good: C = conditional: X = unsatisfactory							•	LAUE	nounds	טוט						

 $E = excellent; \ G = good; \ C = conditional; \ X = unsatisfactory$ 



<sup>\*</sup> compounds not in catalogue. Ask Parker for right solution

Chemical or Material Conveyed	Butyl	CPE	EPDM	Hypalon	Hytrel *	Natural	Neoprene	Nitrile	Nylon *	SBR	Santoprene	Teflon *	UHMW	Urethane *	Viton *	XLPE
METHANOIC ACID	E	X	E	E	С	С	E	С	Χ	E	Ø E	E		X	Χ	
METHANOL (METHYL ALCOHOL)	Е	G	Е	Е	Е	Е	Е	Е	G	Е	Е	Е	Е	Χ	С	С
METHANOL (WOOD ALCOHOL)	Е	G	Е	Е	Е	Е	Е	E	G	Е	E	Е	Е	Χ	С	С
METHOXY ETHANOL		E														
METHOXYETHOXY ETHANOL  METHYL 1-2, 4-PENTANEDIOL		E E														
METHYL ACETATE	G		G	С	С	Х	С	Х	Е	Х		Е	Е	Х	Х	Е
METHYL ACETOACETATE	G		G	X	J	X	X	X	_	,,		E	_	X	X	E
METHYL ACETONE	G		Е	Χ		С	Х	Х				Е	Е		Χ	
METHYL ACETYLENE PROPADIENE			G				Е	Е		G						
METHYL ACRYLATE			G										В			
METHYL ACRYLATE STAB.	_		G	_	_	_	_	_	_	_	_	_	В		_	_
METHYL ALCOHOL  METHYL ALLYL ALCOHOL	E E	G	E	E E	Е	E E	Е	E E	G	Е	E	E E	Е	Χ	C G	Е
METHYL ALLYL CHLORIDE	F	С		X		X				Х					F	G
METHYL AMYL CARBINOL	E			E		E		Е				Е			G	E
METHYL BENZENE	X	С	Х	X	С	X	Х	X	Е	Х	Х	E		Х	E	E
METHYL BROMIDE	С		С	Χ	Χ	Х	Χ	G	G	Χ	Χ	Е	G	Χ	Е	G
METHYL BUTANE	Х		Х	Χ			Х	Е				Е		G	Е	
METHYL BUTANOL	Е	Е	Е	Е	Е	Е	Е	Е	Е	G	Е	Е		X	Е	
METHYL BUTYL KETONE	E		Е	X		X	Χ	X		Χ		E	E	Х	Χ	
METHYL CARBITOL	E		0	E		X	0	С		V		E	_	V	V	E
METHYL CELLOSOLVE METHYL CHLORIDE	G X	С	G X	C X	Χ	X	G X	C X	С	X	Χ	E E	E E	X	X E	E G
METHYL CYANIDE  METHYL CYANIDE	E	C	E	G	^	G	E	C	C	^	^	E		^	X	G
METHYL ETHYL KETONE	E	G	E	X	Е	X	X	Х	G	Χ	С	E	Е	Х	X	Е
METHYL HEXANOL	E	O.	_	E	_	E	, ,	E	Ο.	,,	Ū	E	E	,,	G	E
METHYL ISOAMYL KETONE		С														
METHYL ISOBUTYL KETONE (MIBK)			G										G			
METHYL METHACRYLATE	С		Χ	Χ		Χ	Χ	Χ	С	Χ	С	Е	G	Χ	Χ	G
METHYL NORMAL AMYL KETONE	G			X		X		X				E			Χ	E
METHYL PROPYL ETHER	X G		С	G		X	Х	X				E E			G	Е
METHYL SALICYLATE METHYL STYRENE	G	С	C			^	^	^							G	
METHYL SULFIDE	С	O		Х		Х		Х				Е				
METHYL TERTIARY BUTYL ETHER	G	Χ					Χ	Х		Χ		G	G		Χ	
METHYL-1-PROPANOL	Е		Е	Е		Е	Е	G		Е		Е		Χ	Е	
METHYL-2-BUTANOL	Е	Е		Е		Е				Е					F	Е
METHYL-2-BUTANONE	G	Х	С	Χ	Χ	Χ	Χ	Χ	Е	Χ		Е		Χ	Х	Е
METHYL-2-HEXANONE	G	С	_	X		X	_	0		Χ		_			X	Е
METHYL-2-PENTANOL METHYL-2-PENTANONE	E C	Χ	E G	E X	Χ	G X	E X	G X	G	Χ	Χ	E E		Χ	C X	
METHYL-2-PROPEN-1-OL	E	^	E	E	^	G	E	G	u	^	^	E		^	C	
METHYL-3-PENTEN-1-ONE	_	С	_	_		G	_	G				_			J	
METHYL-4-ISOPROPYL BENZENE		С														
METHYLALLYL ACETATE	Е			G		Χ		Χ				Е			Χ	Е
METHYLAMYL ALCOHOL	Е		Е	Е		G	Е	G				Е			С	Е
METHYLCYCLOHEXANE	X			X		Х		X				E			G	G
METHYLENE BROMIDE	X		X	X	V	X	X	X	0	V	V	E E	G E	V	С	0
METHYLENE CHLORIDE METHYLETHYL KETONE	X E	G	C E	X	X E	X	X	X	C G	X	X	E	E	X	G X	C E
METHYLHEXYL KETONE	G	G		X		X	^	X	G	^	C	E		^	X	E
METHYLISOBUTYL CARBINOL	E		Е	E		G	Е	G				E			C	С
METHYLISOBUTYL KETONE	С	Χ	G	X	Χ	X	X	X	G	Χ	Χ	E	Е	Χ	Х	Ē
METHYLISOPROPYL KETONE	G	Х	С	Χ	Х	Х	Х	Х	Ē	Х		Е		Χ	Χ	Е
METHYLLACTONITRILE	Е			С		С	В	Х			Е	Е		Х	Χ	
METHYLPHENOL	X		Χ	С		X	Χ	X				E		Х	Е	
METHYLPROPYL CARBINOL	E		^	E		E		E		V		E			G	_
METHYLPROPYL KETONE	G		G	X		X	X	X		X		E		V	X	Е
MIL-A-6091 MIL-E-9500	E		E E	E E		E E	E E	G E		E E				X	E E	
MIL-F-16884	X		X	С		X	С	E		X				C	E	
MIL-F-17111	X		X	X		X	G	E		X				С	E	
MIL-F-25558B	X		X	G		X	G	E		X				G	E	
MIL-F-25576C	Х		Х	С		Χ	С	Е		Χ				С	Е	
	X		Х	Χ		Χ	Х	Е		Х				G	Е	

 $\mathsf{E} = \mathsf{excellent}; \ \mathsf{G} = \mathsf{good}; \ \mathsf{C} = \mathsf{conditional}; \ \mathsf{X} = \mathsf{unsatisfactory}$ 



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 $<sup>\</sup>ensuremath{^*}$  compounds not in catalogue. Ask Parker for right solution

Ohamiaal ar		111	Σ	ou	*	'al	ene	<u>е</u>	* -	œ	rene	* -	<b>&gt;</b>	ne *	*	Щ
Chemical or Material Conveyed	Butyl	CPE	EPDM	Hypalon	Hytrel *	Natural	Neoprene	Nitrile	Nylon *	SBR	Santoprene	Teflon *	UHMW	Urethane	Viton *	XLPE
MIL-G-10924B	Х		Х	G		Х	Х	Е		Х				G	Е	
MIL-G-25013D	Χ		Χ	G		Χ	G	Е		Χ				С	Е	
MIL-G-25537A	Χ		Χ	G		Χ	G	E		Х				G	Е	
MIL-G-4343B	С		С	G		С	G	G		С				Е	E	
MIL-G-5572	X		X	X		X	X	E		X				G	E	
MIL-G-7711A	X		X	X		X	X	E		X				E	E	
MIL-H-13910B MIL-H-19457B	G E		E E	G X		G X	G X	G X		E X				X	E C	
MIL-H-22251	E		E	G		^	G	G		G				^	E	
MIL-H-27601A	X		X	С		Х	G	G		X				С	E	
MIL-H-5606B	X		C	G		X	G	E		X				G	E	
MIL-H-6083C	X		X	G		С	G	E		X				G	E	
MIL-H-8446B	Х		Χ	С		Χ	G	G		Χ				С	Е	
MIL-J-5161F	Χ		Χ	Χ		Χ	Χ	G		Χ				С	Е	
MIL-J-5624G (JP-3, JP-4, JP-5)	Χ		Χ	Χ		Χ	Χ	Е		Χ				С	Е	
MIL-L-15016	Χ		Χ	G		Χ	G	Е		Χ				Е	Е	
MIL-L-17331D	Χ		Χ	G		Χ	G	Е		Χ				Е	Е	
MIL-L-2104B	Х		Χ	С		Χ	G	E		Χ				E	Е	
MIL-L-21260	X		X	G		X	G	E		X				E	E	
MIL-L-23699A	X		X	С		X	С	G		X				С	E	
MIL-L-25681C	E		E	G		G	G	G		G				С	E	
MIL-L-3150A	X		X	G		X	G	E		X				G	E	
MIL-L-3545B	X		X	С		С	G	G		X				С	E	
MIL-L-4339C	X		X	X		X	X G	E E		X				X	E E	
MIL-L-6082C MIL-L-6085A	X		X	G X		X	X	G		X				E C	E	
MIL-L-7870A	X		X	X		X	G	E		X				X	E	
MIL-L-9000F	X		X	C		X	G	E		X				C	E	
MIL-L-9236B	X		X	X		X	X	G		X				X	E	
MIL-O-5606	^		/\	/\		^	/\	E						^	E	
MIL-O-7808	Х		Х	Х		Х	Х	G		Χ		Е		Х	E	
MIL-P-27402	E		E	G		, ,	G	G		G		_		, ,	_	
MIL-S-3136B TYPE 1 FUEL	Х		Χ	G		Χ	G	E		Χ				G	Е	
MIL-S-3136B TYPE 2 FUEL	Χ		Χ	Χ		Χ	Χ	С		Χ				G	Е	
MIL-S-3136B TYPE 3 FUEL	Χ		Χ	Χ		Χ	Χ	С		Χ				G	Е	
MIL-S-3136B TYPE 4 OIL, LOWSWELL	Χ		Χ	Е		Χ	Ε	Е		Χ				Ε	Е	
MIL-S-3136B TYPE 5 OIL, MEDSWELL	Χ		Χ	G		Χ	G	Ε		Χ				G	Ε	
MIL-S-3136B TYPE 6 OIL, HI SWELL	Χ		Χ	Χ		Χ	Χ	Ε		Χ				G	Е	
MIL-S-81087	Е		E	Е		E	E	Е		Е				E	Е	
MINERAL OIL	Х	G	Χ	Е	Е	Χ	Е	Е	Е	Χ	Χ	Е	Е	Е	Е	Е
MINERAL SPIRITS	Х		Χ	G		Χ	Χ	E	_	Х		Е	Е	G	Е	Е
MOBILE HFA			X	_		_	_	Е	Е			E		_	_	
MOLTEN SULFUR	G		E	E		G	E	G		V		E	Х	G	E	X
MONOBUTYL ETHER  MONO-CHLOROACETIC ACID	X G	~	X	X	~	X	C E	C X	~	X	~	E E		X	X G	E E
MONOCHLOROBENZENE	X	Х	C X	X	X	X	X	X	X G	X	X	E	G	X	E	G
MONOCHLORODIFLUOROMETHANE	X	С	E	E	X	C	E	X	u	E	X	E	u	^	X	С
MONOETHANOL AMINE	G	U	G	С		G	G	G		G		E	Е	Х	X	E
MONOETHYL AMINE	G		E	С		C	X	Х		С		E	_	X	X	С
MONOMETHYLAMINE	C		E	С		C	C	G		J		E		, ,	C	E
MONOVINYL ACETATE			G	-		-	-					_	В		E	
MORPHOLINE			X				Χ	Χ	Χ			Е				
MOTOR OIL			Х	G	G		G	Е	G			Е	Е	G	Е	Е
MTBE	G	Χ					Χ	Χ		Χ		G	G		Χ	
MURIATIC ACID	С	Χ	С	С	С	С	С	С	Χ	Χ	Е	Е	Е	С	С	Е
NA-K			Χ					Χ				Χ				
NAPHTHA	Χ	Е	Χ	Χ	Е	Χ	Χ	Е	Е	G	Χ	E	Е	С	Е	Е
NAPHTHALENE	Χ	С	Χ	Χ	С	Χ	Χ	Χ	G	Χ	С	Е	Е	G	Е	Е
NAPTHENIC ACIDS		Е	Χ	Χ		Χ	Χ	G		Χ		Е			Е	
N-BUTANAL	G		G	С		Χ	С	Χ				Е		С	Χ	
N-BUTYLAMINE	Х		С	Χ		Χ	Χ	Χ		Χ		Е		Χ	Χ	
N-BUTYLBENZENE				Χ		Χ		Χ				E			Е	Е
N-BUTYLBROMIDE	X			Χ		Х		Χ				E E			G	G
	E		Е	Χ		Χ	Χ	Х		Χ		Ε			Е	G
N-BUTYLBUTYRATE		_	_	_	-	_	_	-	_	_	_	-			_	1
N-BUTYLBUTYRATE N-BUTYLCARBINOL NEOHEXANE	E X	Е	Е	E X	Е	E X	Е	G E	Е	Е	Ε	E E		Χ	E E	Е

 $E = excellent; \ G = good; \ C = conditional; \ X = unsatisfactory$ 



<sup>\*</sup> compounds not in catalogue. Ask Parker for right solution

	_	111	5	on	*	ja Ja	eue	<b>o</b>	*	or.	rene	*	>	ne *	*	ш
Chemical or Material Conveyed	Butyl	CPE	EPDM	Hypalon	Hytrel *	Natural	Neoprene	Nitrile	Nylon *	SBR	Santoprene	Teflon *	UHMW	Urethane	Viton *	XLPE
NEON GAS	Е		Е	Е		Е	Е	Е	Е	Е	Е	Е		Е	Е	
NEU-TRI	Χ			Χ		Χ		Χ				Ε			Е	E
NICKEL ACETATE	Е		E	Χ		Е	G	G		Χ		Е	Е	Χ	Χ	Ε
NICKEL CHLORIDE	Е	Χ	Е	Е	С	E	G	Ε	С	Е		Ε	Ε	С	Е	Ε
NICKEL NITRATE	Е		E	E		Е	Е	Е				Е	Е		E	Е
NICKEL SULFATE	Е	Χ	Е	Е	С	G	Е	Е	С	G		Е	Е	С	Е	Е
NIETYLENE						Е										
NITRIC ACID, 10 %	Е	Χ	Е	G	С	Χ	G	Χ	С	Χ	Е	Е	Е	Χ	Χ	С
NITRIC ACID, 13N	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ		Е		Х		
NITRIC ACID, 13N + 5 %	Х	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ		Е		Χ		
NITRIC ACID, UP TO 25 %	G	X	E	G	X	X	X	X	X	X		E	E	Х	С	Е
NITRIC ACID, 25 % – 40 %	С	Χ	G	С	Χ	Х	Х	Χ	Χ	Χ		E	G	Χ	С	G
NITRIC ACID, 40 % – 60 %	Χ	Χ	Χ	Χ	Χ	Х	Х	Χ	Χ	Χ		E	С	Х	С	С
NITRIC ACID, CONC (16N)	Χ	Х	Χ	Χ	Χ	Χ	Χ	Х	Χ	Χ	Х	E	Е	Χ	Е	G
NITRIC ACID, RED FUMING	С	Х	X	X	Χ	Χ	Χ	Χ	Χ	Χ	Χ	E	Х	Х	С	Χ
NITRILOTRIETHANOL	G		Е	Е	Χ	G	Χ	С	_	G		E		Х	Χ	
NITROBENZENE	G	С	X	X	Χ	X	X	X	С	X	_	E	E	X	С	E
NITROETHANE	G		G	С		G	С	X		G	Е	E	E	X	X	E
NITROGEN	Е		Е	E		Е	Е	Е		Е		Е	Е	Е	Е	Е
NITROMETHANE	G		G	С	С	G	Χ	Χ		С		Е	Е	Χ	Χ	Е
NITROPROPANE			G										Е			
NITROUS OXIDE GAS	Е		Е	Е		Е	G	Е	С			Е	Е	G	Е	
N-NONYL ALCOHOL	Е			Е		Е		Е				Е			G	
N-OCTANE	Χ		Χ	Χ		Χ	С	Е		Χ		Е	G	Χ	Е	G
NONANOIC ACID	Е			Χ		Х		Е				Е				
NONANOL	Е			Е		Е		Е				Е			G	
N-SERV (75 % XYLENE)									Е			Е			Е	С
NUTO H			Χ					Е	Е			Е				
NYVAC LIGHT			Е					Х	Е			Е				
O-AMINOTOLUENE		G										_				
OCTANOIC ACID	С		_	G		С	_	С				E	_		_	
OCTANOL	G		Е	G		G	G	G		G		E	E	Χ	E	Е
OCTYL ACETATE	E		_	E		X	_	X		_		E	E		X	_
OCTYL ALCOHOL	G		G	G		G	G	G		G		E	Е	Х	G	E
OCTYL ALDEHYDE	С			X		X		X				E			X	E
OCTYL AMINE	E			С		С		С				E			X	С
OCTYL CARBINOL	Е			E		E		E				E			G	E
OCTYLENE GLYCOL	E			E	_	E		E	_		_	E	_	_	E	С
OIL-PETROLEUM	X	G	X	G	E	X	G	E	G	X	С	E	E	G	E	E
OLEIC ACID	X	X	С	G	E	X	С	E	E	X		E	E	G	E	E
OLEUM (FUMING SULFURIC ACID)	X	Х	X	X	Χ	X	X	X	X	X		E	X	X	G	X
OLIVE OIL	G		G	G		X	G	E	E	X		E	G	E	E	С
ORTHO-DICHLOROBENZENE	X		X	X	X	X	X	X	E	X	X	E		X	E	_
ORTHO-DICHLOROBENZOL	X	_	X	X	X	X	X	X	E	X	X	E		X	E	G
ORTHOXYLENE OYALIO A OID	X	С	С	X	С	X	X	X	G	X	X	E	_	X	E	E
OXALIC ACID	Е	X	Е	Е	Χ	С	G	G	G	G	Е	Е	Е	С	Е	С
OXYDIETHANOL		Е	_				_						_		_	
OXYGEN COLD	0		Е	_	0	\ <u>/</u>	E		0	V		_	E	_	E	
OZONE DAINT THINNED	G		E	E	С	X	C	X	С	X		E	С	E	E	C E
PAINT THINNER	Х		Х	Χ		Χ	Х	Х	G	Χ		Е	Е	Х	G	E
PALM OIL	0		0	0	_				_	D	г		Е	_	Е	
PALMITIC ACID	G	G	G	С	Е	E	G	E	С	В	Е	E	E	Е	E	G
PAPA METHOXYPROPENYL BENZENE	E	V		E		E	E	Е	_			E	G		E	
PARA METHOXYPROPENYL BENZENE	X	Х	V	X		X	V	V	G	V		Е		V	G	0
PARA-DICHLOROBENZENE	X		X	X		X	X	X		X		Е	_	X	E	G
PARAFFIN WAX	X		X	X		X	G	E		Е		_	Е	G	E	X
PARALDEHYDE	E		E	X		С	С	С				E		0	X	Е
PARAXYLENE	Х		Х	Χ		Χ	Х	С				E		С	E	Е
PCB	V		V	V						V		E	_		E	_
P-CYMENE	X	Χ	Χ	X		X	Х	X		Χ		E	Е	Х	E	E
PELARGONIC ALCOHOL	E			E		E		E				E			G	E
PENTACHLOROETHANE	Х	-		Χ		Х	Х	Χ				E			Е	Е
PENTADIONE		G					_	_				_			_	
PENTAMETHYLENE	X		X	X	-	X	E	G	_			E	-	-	E	_
PENTANO	X		X	С	G	X	С	E	G	Х		E	G	С	E	G
PENTANOL	Е		Е	Е		Е	Е	Е				Е		С	G	

 $\mathsf{E} = \mathsf{excellent}; \ \mathsf{G} = \mathsf{good}; \ \mathsf{C} = \mathsf{conditional}; \ \mathsf{X} = \mathsf{unsatisfactory}$ 



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 $<sup>\</sup>ensuremath{^*}$  compounds not in catalogue. Ask Parker for right solution

Chemical or Material Conveyed						*		<u>e</u>		*		ne	*	_	*		
PRINTACON		Butyl	CPE	EPDM	lypalo	Hytrel	Natura	eoprer	Nitrile	Nylon .	SBR	intopre	Teflon	NHMW	rethan	Viton *	XLPE
PENTALACO:   C	PENTANONE	G		G			X		X			လိ	Ť		⊃	Х	E
PRINTLE ALCOHOLE	PENTASOL							Е			G				Χ	G	
PENTYL DEMONICE																	
PEMTYLEHPR		Е	Е	Е	Е	Е	Е	Е	G	Е	Е	Е			Χ		
PEMITYLARIME		V	0	V	V		V	V		F	V				0		0
PENTLAMINE		Х	C	Х			Х	Х	C	E	Х				C	E	G
FERDALLIORIO ACID-2N		G		Х			С	Х								Х	
PERFOLLICHOMENTIANIE						Χ				Х	Χ	Χ			Χ		Е
PETROLEUM ORIDE	PERCHLOROETHYLENE	Χ	С	Χ	Χ	Χ	Χ	Χ	С	С	Χ	Χ	Е	G	Χ	Е	G
PETROLEUM ETHER																	
PETRIOLEJMONILS						С								Е			
PHENDO			0			Г						0		Г			
PHENDLO		Α	G	Χ	G	E	Χ	G	E	G	Χ	C	E			Е	E
PHENNLEHONICAD		G			Χ	Χ	Χ	Х	X	X	Х	Χ	F			F	F
PHENNIAMNE						, ,				٠.		,,					
PHENNIBUTANE				G				Χ									
PHENYLCHLORIDE	PHENYLBROMIDE	Χ		Χ	Χ		Χ	Χ	Χ				Ε		Χ	G	
PHENYLETHANENE			С														
PHENYLMETHANE						\ /											Е
PHENYLMETHANOL						Х					Х						
PHENY, METHYL, ACETATE						C				C	X	X		F			F
PHOSPHORIC ACID 10 %   G				ч		O		Λ.		O		/			Λ.		
PHOSPHORIC ACID 10 % - 85 %   G   X   E   E   X   G   E   X   X   X   X   X   X   X   X   E   E			G	Е		С		Χ	Χ	Е	Χ	Е	Е		Χ	С	
PHOSPHORUS TRICHLORIDE ACID	PHOSPHORIC ACID 10 %									Е	G	Е					
PHTALIC ANHYDRIDE			Χ			Χ				С				Е	С		Е
PICRIC ACID, H2O SOLUTION		E			Χ		Χ		Х		Χ		Е				
PINE   DIL		0	~		_	V	0		0	~	0	V	0		0		
PINENE			^			^				^		^		F			F
POLY CHLORINATED BIPHENOL																	
POLYOL ESTER	POLY CHLORINATED BIPHENOL												Е			Е	
POLYPROPYLENE GLYCOL	POLYETHYLENE GLYCOL E-400	Е	Е		Ε		Е				Е			Ε		Е	
POLYVINYL ACETATE EMULSION (PVA)						Χ		G		G					Χ		
POTASSIUM AIGETATE		E		_	Е		Е	0	E				Е	_			
POTASSIUM BICARBONATE	, ,	E			C		E		G	G	V		E		V		E
POTASSIUM BISULFATE					U				G	G	^				^		
POTASSIUM CARBONATE		Е			Е		Е		Е	G	G		Е				Е
POTASSIUM CHLORIDE	POTASSIUM BISULFITE			Е	Е		Ε	Е	Е	G	G		Е		Е	Е	
POTASSIUM CHROMATE																	Е
POTASSIUM CYANIDE         E         G         E         G         E         G         E         G         G         C         E         E         E         G         C         E         E         G         G         C         E         E         G         G         G         G         C         E         E         G         G         G         G         G         C         E         G         C         E         E         G         G         G         G         C         E			G			G											
POTASSIUM DICHROMATE         E         X         E         E         G         E         G         G         E         G         G         E         G         G         E         G         G         C         E         E         G         G         C         E         G         G         C         E         G         G         C         E         G         G         G         C         E         G         G         G         C         E         G         G         G         C         E         G         C         E         G         G         C         E         E         G         G         G         G         C         E         E         G         G         G         G         C         E			0			0											
POTASSIUM HYDRATE         E         G         E         C         G         G         G         G         G         G         G         C         E           POTASSIUM HYDROXIDE         G         X         E         E         E         C         G         G         G         G         E         G         C         G         E           POTASSIUM NITRATE         E         E         E         E         E         G         E         <						G											
POTASSIUM HYDROXIDE         G         X         E         E         C         G         G         G         G         E         G         C         G         E			^											u			
POTASSIUM PERMANGANATE 5 %         E         E         G         X         E         E         C         X         G         E         E         X         E           POTASSIUM SULFATE         E			Х			С						G		G			
POTASSIUM SILICATE  POTASSIUM SULFATE  E  E  E  E  E  E  E  E  E  E  E  E	POTASSIUM NITRATE	Е		Е	Е	G	Е	Е	Е	G	Е		Е	Е	Е	Е	Е
POTASSIUM SULFATE  POTASSIUM SULFIDE  E  E  E  E  E  E  E  E  E  E  E  E	POTASSIUM PERMANGANATE 5 %					Χ								Е			
POTASSIUM SULFIDE         E																	
POTASSIUM SULFITE    E						G											Е
PRESTONE ANTIFREEZE         E         G         E         G         E         G         E         G         E         G         E         G         E         G         E														E			F
PRODUCER GAS         X         X         G         X         G         E <t< td=""><td></td><td></td><td>G</td><td></td><td></td><td>G</td><td></td><td></td><td></td><td></td><td></td><td>F</td><td></td><td></td><td></td><td></td><td>_</td></t<>			G			G						F					_
PROPANEDIOL         C         E         E         E         E         E         C         E         E         G         E         G         E           PROPANOL         E			J			G				J		_					
PROPANETRIOL         E <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>																	
PROPANOLAMINE         E         G         E         X         C         C         X         X         E         C         E         X         <	PROPANETRIOL	Е	Е			Е				G							
PROPANONE         E         G         E         X         C         C         X         X         E         C         E         E         X         X           PROPEN-1-OL         E		Е		Е	Е		Е	Е	Е		Е	Е	Е		Χ	Е	Е
PROPEN-1-OL         E         E         E         E         E         E         E         E         E         E         G         E         E         G         E         G         E         G         E         G         E         G         E         G         E         G         E         F <th< td=""><td></td><td>_</td><td></td><td>_</td><td></td><td>-</td><td>-</td><td></td><td>\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \</td><td>_</td><td>-</td><td>_</td><td>_</td><td></td><td></td><td></td><td></td></th<>		_		_		-	-		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	_	-	_	_				
PROPENEDIAMENE E G X X E E			G			С				E	С	E		_	X		_
PROPENENITRILE X G X X E E E			F	_	_		_	<u> </u>					<u> </u>	<u></u>		G	
		Х	_				G	Х	Х				Е				
				Е	Е									Е		G	Е

E = excellent; G = good; C = conditional; X = unsatisfactory



 $<sup>\</sup>ensuremath{^*}$  compounds not in catalogue. Ask Parker for right solution

PROPENTIANSOLE				_	L.	*	<u>-</u>	ne	4)	*		ene	*	>	*	*	111
PROPONITALISCUE		Butyl	CPE	EPDN	Hypalc	Hytrel	Natura	Neopre	Nitrile	Nylon	SBR	Santopre	Teflon	ОНМУ	Urethan	Viton	XLPE
PROPPULACIONITIALE	PROPENYLANISOLE	Х			Х		Х		Х			-V	Е			G	
PROPIVILACITATE					G			1			Χ				Χ		Е
PROPYLALOCHOLD								-				Х		_			
PROPIN_LENEYDE								1				_					E
PROPYLETHORNORD				E				E			E	E			Х		E E
PROPYLICHICOPIDE		G	C		^		C		^							^	
PROPYLETHER		C	U		Х		Х		Х				Е	Е		G	Е
PROPYLENE DIAMINIE		Ū	Е		,,		, ,		, ,				_	_		<u>.</u>	_
PROPYLENE DIAMINE		G		G	Χ		Χ	Х	Χ		Χ		Е		Χ	Χ	
PROPVILENE DICHLORIDE	PROPYLENE			Χ			Χ	Χ			Χ				Χ	Ε	
PROPYLENE GIAYOOL	PROPYLENE DIAMINE	Е			С		G		G				Е				
PYDRAUL, 'E' SERIES		_							_						_		
PYPRICIUS						0		1		_							_
PYRIDLIONEOUS ACID	- /											_		E			Е
PYPOLIGNEOUS ACID		Χ			Λ	U	Λ	Χ	Χ	E	Χ	E	Е	_	Λ	E	
RESIN OIL																В	
DUINTOLLIBRIC 822 SERIES				u				X									
RED OIL		Χ		Χ			Χ		G								
REFRIGERANT 12	RED OIL		Х		G	Е	Χ	С		Е	Χ		Е		G		
REFRIGERANT 22	REFRIGERANT 11	Χ		Χ	Е	Е	Χ	Χ	G		Χ		Е		С	С	
RESORCINOL	REFRIGERANT 12											Χ					С
SAE NO. 10 OIL		Χ	С		Е		С		Χ								С
SALAMMONIAC			_						_								
SEA WATER			1					<u> </u>				Х					
SEWAGE			Gi									г		г			Е
SILICATE ESTERS		1						-									E
SILICATE OF SODA												u					_
SILICONE GREASE						Ü				G	/\				_		Е
SILICONE OIL						Е		Е		Е	Е				Е		
SKYDROL 500 TYPE 2	SILICONE OIL			Е	Е	G	С	Е	Е	Е			Ε	Ε	Ε	Ε	
SKYDROL 500B								1						Е			Е
SKYDROL 500C         G         G         G         X         E         X         X         E         X         E         X         S         X         S         X         S         S         X         S <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>Χ</td><td></td><td>Χ</td><td></td><td>Χ</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>							Χ		Χ		Χ						
SKYDROL 7000 TYPE 2			1	Е				1		Е		Е			С		
SOAP SOLUTIONS				Г			V		V	г	~				~		
SODA ASH			-					1				E		E			Е
SODA LIME								-									E
SODA NITER         E         G         E         E         G         G         G         G         E         G         E         G         E         G         E         G         E         G         E         G         E         G         E         G         E         G         E         G         E         G         E         G         E         G         E         G         E         G         E         G         G         E         G         G         E         G         G         E         G         G         E         G         G         E         G         G         E         E         G         G         E         E         G         G         G         G         G         E         E         G         G         G         G         E         E         E         G         E         E			O.			<u>.</u>		1		<u>.</u>	_						E
SODIUM ACETATE			G			G		G		Е	G				G		Е
SODIUM ALUMINATE	SODA, CAUSTIC		С	Ε	E	С	G	Е	С	G	Ε	С	Ε	Ε	G	Χ	Ε
SODIUM BICARBONATE         E	SODIUM ACETATE			Е			Е	G		G	Χ				Χ		Е
SODIUM BISULFATE																	Е
SODIUM BISULFITE								1									E
SODIUM BORATE         <			Х														E
SODIUM CARBONATE 10 % - 15 %         G         G         E         E         G         E         E         G         E         E         G         E         E         G         E         E         G         E         E         G         E         E         G         E								1									C E
SODIUM CHLORATE         E         G         G         E         G         E         E         E         G         E         E         E         E         E         E         G         E         E         E         G         G         G         E         E         G         G         G         G         E         C         G         G         G         E         G         G         G         E         G         G         G         G         E         G         G         G         G         G         G         G         G         G         G         G         G         G         G			G														E
SODIUM CHLORIDE         G         G         E         G         G         E         E         G         E         G         G         G         E         C         G         G         G         E         C         G         G         G         E         C         G		J	J		_	J	_	_	_	ч	_		_	_	J		_
SODIUM CYANIDE         E         G         E         E         G         E         E         E         E         G         E         E         E         E         E         E         E         E         E         E         E         G         E         E         E         E         E         E         E         E         E         G         E         E         E         E         G         E         E         G         G         G         E         C         C         C         G         G         E         C         G         G         G         E         C         G         G         G         E         C         C         C         C         G         G         E         C         C         C         G         G         E         C         E         G         C         E         C         C         G         G         C         E         C         C         G         G         C         C         C         G         G         C         C         C         C         G         G         C         C         C         C         C         C         C		G	G		Е	Е	Е	Е	Е	G	Е	С	Е	Е	Е		Е
SODIUM FLUORIDE         E         E         E         E         G         E         C         E           SODIUM HYDRATE         E         E         E         G         E         G         G         G         G         E         C         C         G         G         E         C         C         C         G         G         E         C         E         C         C         G         G         E         C         E         C         C         C         G         G         E         C         C         C         G         G         C         E         C         E         C         C         C         G         G         C         E         C         C         C         C         E         C         C         C         C         E         C         C         C         C         E         C		Е	1	E	Е		Е	Е	Е	E			Е	Е		Е	Е
SODIUM HYDRATE         E         E         G         E         G		Е			G		Χ	<u> </u>	Е	G	G		Е		G		G
SODIUM HYDROCHLORITE         G         G         E         C         C         C         G         G         E         C         E         C         E         C         E         C         E         C         E         C         E         C         C         G         G         C         E         E         C         C         C         E         E         C         C         C         E         E         C         C         C         E         E         C         C         C         C         E         E         C         C         C         C         C         C         C         C         C         C         E         E         C														С			
SODIUM HYDROXIDE (CAUSTIC SODA)         E         C         E         E         C         E         G         C         G         G         C         E         E         C         C         E         G         C         E         E         C         C         C         C         E         E         C         C         C         C         E         E         C <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>l</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Е</td></t<>								l									Е
SODIUM HYPOCHLORITE G X G G C X C X X C C E E C C SODIUM METAPHOSPHATE G E G E E E E E G E			_			_		-				_		_			G
SODIUM METAPHOSPHATE G E G E E E E G E	,		1					1									E
			X			Ü						Ü					G E
SODIM NUBBLE FIGURE FIG	SODIUM NITRATE	E	G	E	E	G	G	G	G	E	G		E	E	G	E	E
																	E
			1														E
			.,														E
SODIUM SILICATE E G E E E E E E G E			G					-									
SODIUM SULFATE E G E E G E E E E E	SODIUM SULFATE	Е	G	Е	Е	G	G	Е	Е	Е	G		Е	Е	Е	Е	Е

 $\mathsf{E} = \mathsf{excellent}; \ \mathsf{G} = \mathsf{good}; \ \mathsf{C} = \mathsf{conditional}; \ \mathsf{X} = \mathsf{unsatisfactory}$ 



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 $<sup>\</sup>ensuremath{^*}$  compounds not in catalogue. Ask Parker for right solution

			_	Ę	*	<u></u>	ne	4	*		ene	*	>	*	*	
Chemical or Material Conveyed	Butyl	CPE	EPDM	Hypalon	Hytrel *	Natural	Neoprene	Nitrile	Nylon *	SBR	Santoprene	Teflon *	UHMW	Urethane	Viton *	XLPE
SODIUM SULFIDE	Е	G	Е	Е	G	G	E	Е	Е	G	S)	Е		E	Е	Е
SODIUM SULFITE	Е		Е	Е		G	Е	Е	Е	G		Е	Е	Е	Е	Е
SODIUM THIOSULFATE	Е		Е	Е		Е	Е	Е	G	G		Е	Е	Е	Е	Е
SOYBEAN OIL	С	G	X	E	G	X	E	E	E	X		E	E	G	E	E
STANNIC CHLORIDE STANNIC SULFIDE	G E	Х	Е	C E	G	G E	С	E E	С	E		E E	E	G	Е	E E
STANNOUS CHLORIDE	G		С	E	G	E	Е	E	С	Е		E	Е	С	Е	Е
STANNOUS SULFIDE	E		Ü	E	u	E	_	E	Ü	_		E	_	Ü	_	Е
STEARIC ACID	G	G	G	С	G	С	G	Е	Е	G	Е	Е	Е	Е	Е	Е
STODDARD SOLVENT	Χ	G	Χ	Χ	Е	Χ	С	Е	Е	Χ	Χ	Е	Е	G	Е	Е
STYRENE MONOMER	Χ		Χ	Χ	Χ	Χ	Χ	Χ		Χ		Е	G	С	G	G
SULFAMIC ACID	E		X	E		G	G	С				E	_	Χ	E	С
SULFUR CHI OPIDE	F X	0	F	F C	0	X	X	X	0	X		E E	E E	0	G E	X E
SULFUR CHLORIDE SULFUR DIOXIDE	G	G	X E	С	C X	X	X	X	C X	C		E	G	С	E	С
SULFUR TRIOXIDE, DRY	G		G	C	X	C	X	X	^	X		E	X	G	E	G
SULFURIC ACID 60 % +93 °C (+200 °F)	X	Х	X	J	X	Ü	Х	Х	Х	X		_	Х	G	С	X
SULFURIC ACID, 25 %	G	Χ	Е	Е	Е	G	Е	Е	Χ	G	Е	Е	Е	Χ	Е	Е
SULFURIC ACID, 25 % – 50 %	G	Χ	E	G	G	G	Е	Ε	Χ	G		Ε	Ε	Χ	E	E
SULFURIC ACID, 50 % – 96 %	Χ	Χ	G	С	Χ	Χ	С	С	Χ	Χ		Е	Е	Χ	Е	Е
SULFURIC ACID, CONC. 96 % – 98 %	X	X	X	X	X	X	X	X	X	X		E	E	X	G	С
SULFURIC ACID, FUMING	X	X	X	X	X	X	X	X	X	X		E	X	Х	G	X
SULFUROUS ACID, 10 % SULFUROUS ACID, 10 % – 85 %	E E	X	E G	E E	C	G G	G C	C	C X	G C		E E	E E	Χ	E G	E E
SUTAN		^	G		C	G	U	C	^	C		E		^	F	E
TALL OIL	Х		Х	С		Χ	С	Е		Χ		E	Е	Е	E	С
TALLOW	G		Е	С		С	G	Е		Χ		Е	Е	Е	Е	С
TANNIC ACID	Е	Χ	Е	Е	G	Е	Е	Ε	G	G	Е	Е	Е	Е	Е	Е
TAR, BITUMINOUS	Χ	G	Χ	С	G	С	С	G	G	Χ		Е		G	Е	
TAR, CAMPHOR	X	С	X	X	С	X	X	X	G	X	С	E	X	G	E	X
TARTARIC ACID	G	Х	С	E	G	Е	Е	Е	Е	G	Е	Е	Е	Е	Е	Е
T-BUTYL AMINE TELONE 2			G	Χ												Е
TERPINOL	С	Е	С	Χ		Х	Х	G		Х		Е	G	G	Е	G
TERTIARY BUTYL ALCOHOL	G	_	G	G		G	G	G		G		E	E	X	E	E
TERTIARY BUTYL AMINE			G	Χ												
TERTIARY BUTYL MERCAPTAN	Χ		Χ	Χ		Χ	Χ	Χ		Χ		Е		Χ	Е	
TETRACHLOROBENZENE	Χ			Χ		Χ		Χ				Е		G	G	G
TETRACHLOROETHANE	X		X	X		X	X	X		X	С	E	С	X	E	_
TETRACHLOROETHYLENE TETRACHLOROMETHANE	X		X	X		X	X	C	С	Х		E E	G	X	E E	E E
TETRACHLOROMETHANE	X		Х	X		X	Х	X				E		C	G	G
TETRAETHYLENE GLYCOL	E			E		E		E				E			E	a
TETRAETHYLORTHOSILICATE	E					X	Χ	X				E				
TETRAHYDROFURAN	G		Χ	Χ	С	Χ	Χ	Χ	G	Χ	Χ	Е	G	Χ	Χ	Χ
THF	G		Χ	Χ	С	Χ	Χ	Χ	G	Χ	Χ	Е	G	Χ	Χ	Χ
TIN CHLORIDES	G		E	E		E	С	E				E	E	G	E	Е
TITANIUM TETRACHLORIDE TOLUENE	X	С	X	X	С	X	X	C X	Е	X	Χ	E E	G E	X	E E	E
TOLUENE DIISOCYANATE (TDI)	^	C	E	^	C	^	^	^	Е	^	^		В	^		
TOLUIDINE	Х		L	Х		Х		Х				Е	D		G	
TOLUOL	Χ	С	Χ	Χ	С	Χ	Χ	Χ	Е	Χ	Х	E		Х	E	
TRANSFORMER OIL	Χ		Χ	С		Χ	G	Е		Χ		Е	Ε	Е	Е	
TRANSMISSION 'A' OIL	Χ		Χ	G	G	Χ	G	Е	G	Χ		Е		Е	Е	F
TRI (2-HYDROXYETHYL) AMINE	G		Е	E	Х	G	Χ	С		G		E		Х	Χ	
TRIBUTYL AMINE	E G		г	C	0	G	V	G	0	V		E	г	V	V	Г
TRIBUTYL PHOSPHATE TRICHLOROACETIC ACID	G		E G	X	C X	C	X	X	G X	X		E E	E E	X	X	E E
TRICHLOROBENZENE	X		G	X	^	X	X	X	^	X		E		X	G	E
TRICHLOROETHANE	X		Х	X		X	X	X	Х	X		E		X	E	
TRICHLOROETHYLENE	X	С	X	X	Х	X	X	X	C	X	Х	E	G	Х	E	G
TRICHLOROMETHANE	Х	Х	Х	Χ	Х	Х	Х	Х	С	Χ	Х	Е		Х	Е	
TRICHLOROTOLUENE								Х				Е				
TRICRESYL PHOSPHATE	Е		E	X	С	С	С	X	G	X		E	E	Х	Е	E
TRIETHANOLAMINE	G		E	Е	Х	G	X	С		G		E	E	X	X	Е
TRIETHYLAMINE	С		Е			G	G	Е		Χ		Е		Χ	Е	

E = excellent; G = good; C = conditional; X = unsatisfactory



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Chemical or Material Conveyed	Butyl	CPE	EPDM	Hypalon	Hytrel *	Natural	Neoprene	Nitrile	Nylon *	SBR	Santoprene	Teflon *	UHMW	Urethane *	Viton *	XLPE
TRIETHYLENE GLYCOL	Е			E		E		E			ΐ	Е		<b>–</b>	Е	
TRIHYDROXYBENZOIC ACID	G		G	G	Χ	E	G	G	G	G		E		Х	E	
TRIMETHYL PENTANES (MIXED)	X	Е	X	C	E	X	C	E	E	X	Х	E		G	E	
TRIMETHYL PENTANES (MIXED)	^	E	^	C		^	C			^	^			G		
TRIMETHYLAMINE		E										Е	Е			Е
TRINITROTOLUENE (TNT)		С					G								G	
TRISODIUM PHOSPHATE	Е		Е	Е	Е	E	E	E	E	Е		Е		Е	E	Е
TRITOYL PHOSPHATE	E		E	X	С	X	X	X	G	X		E		X	E	
TUNG OIL	X	С	X	E	G	X	E	E	G	X		E	Е	C	E	Е
				E				E				E				E
TUNG OIL (CHINA OIL)	С	С	X	E	G	Χ	E	E	G	Χ		E	E	С	E	E
TURBINE OIL	\ /	0	X	\ /			С		_	\ /	\ /	_	В	_	E	0
TURPENTINEX	X	G	X	X		X	X	X	Е	X	Χ	E	G	E	E	G
UDMH	Е		Е	E		E	G	G		Χ		E		Х	X	
UNDECYL ALCOHOL	Е			E		Е		Е				E		_	G	
UREA	Е		Е	Е	G	Е	G	G	Е			Е	Е	G	Е	Е
URETHANE FORMULATIONS								Е	Е			Е				
URIC ACID					Χ				G		E	E		Χ		
VARNISH	Χ	С	Χ	Χ		Χ	Χ	G	Е	Χ		Ε		С	Е	
VEGETABLE OILS	С		С	G		Χ	С	Е	G	Χ		Ε	Е	Е	Е	Е
VERSILUBE F44	E		Е	Е		Ε	Ε	Е	Ε	Ε		Е		Ε	Ε	
VERSILUBE F55	Е		Χ	Ε		Ε	Е	Ε	Е	Е		Ε		Ε	Е	
VINEGAR	Ε		Ε	Ε	С	G	G	G	Ε	G		Ε	Χ	С	Ε	Χ
VINEGAR ACID		G														
VINYL ACETATE	Е		G	С		Χ	Χ	Χ		Χ		Χ	Ε	Χ	Ε	Е
VINYL BENZENE	Χ		Χ	Χ	Χ	Χ	Χ	Χ		Χ		Ε	Е	С	G	G
VINYL CHLORIDE (GAS)	Χ		G			G						Ε	Е			Е
VINYL CYANIDE	Χ	Е	Χ	С		С	С	Χ	Е	С	Χ	Е		Χ	С	
VINYL ETHER	Χ			G		Χ		G				Е	Е		Χ	Е
VINYL STYRENE	Х			Χ		Х				Х		Е	Е		Е	Е
VINYL TOLUENE	X			X		X		Χ		,,		E	E		E	E
VINYL TRICHLORIDE	X			Х		Х	Х	X				E	E		E	E
VITAL, 4300, 5310			Χ	/\				X	Е			E	_		_	-
VM&P NAPHTHA	Х		X	Х		Х	С	C	_			E			Е	Х
WATER	E	G	E	E	Е	E	G	E	Е	G	Е	E	Е	Е	E	E
WATER, BOILING	E	G	E	E	С		G	G	X	G	G	G	X	G	G	X
WATER, SODA					E		G	G	E	G	E	E	^	G	G	٨
	V		V	V		V	0	_		V				Е	_	
WEMCO C	X		X	X	_	X	G E	E	_	X		_	V		E	V
WHISKEY	E		E	E	G	E		E	Е	E		E	X	X	E	X
WHITE OIL	X		X	X		X	G	E		X		Е	Е	Е	E	Х
WHITE PINE OIL	X		X	X	_	X	X	G	_	X		_			E	
WINES	Е		E	E	G	E	E	E	E	E		E	X	X	E	X
WOOD ALCOHOL	Е		Е	Е		Е	Е	E		Е		Е	E	Χ	С	Е
WOOD OIL	С		Х	С	G	Х	G	E	G	Х		Е	Е	С	Е	Е
XENON	Е		Е	Е		Е	Е	Е		Е		Е		Е	Е	
XYLENE, XYLOL	Х	С	Χ	Χ	С	Χ	Χ	Х	G	Χ	Χ	Е	С	С	Е	С
XYLIDINE	G		С	Χ		Χ	Χ	С		Χ		Е	G		С	G
ZEOLITES	Е		Ε	E		E	Е	Ε		Ε					Ε	
ZINC ACETATE	Е		Е	С		Ε	G	G		Χ		Ε		Χ	С	
ZINC CARBONATE	Е		Ε	E		E	Е	Ε				Ε	Ε	E	Ε	Е
ZINC CHLORIDE	Е	Χ	Е	Е	Е	Е	Е	Е	Е	Е		Е	Е	G	Е	Е
ZINC CHROMATE	E			С								E				G
ZING GRADIVIATE																

 $<sup>\</sup>mathsf{E} = \mathsf{excellent}; \ \mathsf{G} = \mathsf{good}; \ \mathsf{C} = \mathsf{conditional}; \ \mathsf{X} = \mathsf{unsatisfactory}$ 



 $<sup>^{\</sup>star}$  compounds not in catalogue. Ask Parker for right solution

# Chemical Resistance Guide for PU Flat Hose

Chemical	Resistance
Acetone	Х
Ammonium Hydroxide	Χ
Amyl Acetate	С
Benzene	Χ
Benzyl Alcohol	X
Butyl Acetate	G
Butyl Alcohol	G
Butyl Stearate	F
Caltium Chloride	G
Caltium Nitrate	G
Carbon Tetrachloride	X
Chlorobenzene	X
Chloroform	X
Cresols	X
Chlorox	С
Detergents (Non-hydrocarbon)	G
Diacelone Alcohol	X
Diesel Oil	G
Diethylene Glycol, cold	G
Ethyl Alcohol, (Ethanol) cold	G
Ethyl Ether	С
Ehylene Dichloride	X
Freon 113	G
Fuel Oil	F
Fuel Oil Acid	С
Gasoline (Sour or refined)	G
Glue	G
Grease	G
Hydrochloric Acid (Hot) 37 %	X
Hydrochloric Acid (Cold) 37 %	X
Hydrogen Gas	G

G = good; F = fair; C = conditional; X = not recommended	d
a good, i idai, o conditional, x not recommende	_

Chemical	Resistance
Hydrogen Peroxide 90 %	С
Hydrogen Peroxide 30 %	G
Kerosene	G
Methyl Alcohol	С
Methyl Ethyl Ketone (MEK)	Χ
Mineral Oil	G
Naphtha	F
Nitric Acid	Χ
Petroleum, Crude	G
Phenol (Carbolic Acid)	С
Phosphoric Acid (Grude)	X
Phosphorit Acid 45%	Χ
Potassium Hydroxide	С
Propyl Alcohol	С
Sodium Chloride	F
Sodium Hydroxide (Caustic Soda)	С
Sodium Nitrate	G
Sodium Phosphate	Χ
Sodium Silicate	G
Sulphuric Acid 10 %	С
Sulphuric Acid 11-75 %	С
Sulphuric Acid 76-95 %	С
Toluene (Toluol)	X
Trichloroethylene	С
Tricresyl Phosphate	X
Vegetable Oils	G
Water, Fresh	G
Water, Sea	G
Zint Chloride, Dry	G
Zint Sulphate, Dry	G

G = good; F = fair; C = conditional; X = not recommended

#### WARNING

The above data is based on testing and believed to be reliable; however, the information should be used ONLY as a guide, since it does not take into consideration all variables, such as elevated temperatures, fluid contamination, concentration, etc., that may be encountered in actual use.

All critical applications should be tested. Contact Parker Snap-tite for additional chemical compatibility information.



# **Rubber Hose Dimensional Tolerances**

### According to norms

API 1529	
I.D. ≤ 38 mm	± 0.80 mm
I.D. 50 – 75 mm	± 1.20 mm
I.D. 100 mm	± 1.60 mm

BS 5118/34310	
On inside diameter	± 0.75 mm

DIN 74310	
On inside diameter	
I.D. ≤ 9 mm	± 0.50 mm
I.D. > 9 mm	± 0.50 mm
On wall thickness	± 0.50 mm
Length tolerance	± 0.5 %

EN 250	
On inside diameter	± 0.50 mm
On outside diameter	-0.2 / +0.8 mm
Length tolerance	± 1%

EN ISO 1825	
I.D. ≤ 38 mm	± 0.80 mm
I.D. 50 – 75 mm	± 1.20 mm
I.D. 100 mm	± 1.60 mm

EN ISO 7840	
On inside diameter	
I.D. 5 mm	± 0.50 mm
I.D. 8 – 19 mm	± 0.75 mm
I.D. 25 mm	± 1.25 mm
I.D. 38 – 50 mm	± 1.50 mm
Length tolerance	± 1%

EN 12115	
On inside diameter	
I.D. 19 – 38 mm	± 0.50 mm
I.D. 50 mm	± 0.70 mm
I.D. 63.5 – 100 mm	± 0.80 mm
On outside diameter	
O.D. 31 – 51 mm	± 1.00 mm
O.D. 66 – 91 mm	± 1.20 mm
O.D. 116 mm	± 1.60 mm
Length tolerance	± 1%

EN ISO 3821	
On inside diameter	
I.D. 6.3 mm	± 0.40 mm
I.D. 8 – 10 mm	± 0.50 mm
Length tolerance	± 1%

EN ISO 6134		
On inside diameter		
≤ I.D. 38 mm	± 0.50 mm	
> I.D. 38 mm	± 0.70 mm	
On outside diameter		
≤ O.D. 48 mm	± 1.00 mm	
O.D. 54 mm	± 1.20 mm	
O.D. 69 mm	± 1.40 mm	
Length tolerance	± 1%	

SAE J1402 – TABLE A		
On inside diameter		
I.D. 9.5 mm	± 0.60 mm	
I.D. 12.7 – 15.9 mm	± 0.80 mm	
On outside diameter		
O.D. 19 mm	+ 0.80/ -0.70 mm	
O.D. 22.2 – 27 mm	± 0.80 mm	
Length tolerance	± 1 %	

SAE J 30 R7	
On inside diameter	
I.D. ≤ 9.5 mm	± 0.40 mm
I.D. > 9.5 mm	± 0.60 mm
On outside diameter	
O.D. ≤ 15.9 mm	± 0.60 mm
O.D. > 15.9 mm	± 0.80 mm
Length tolerance	± 1 %

UNI 7140	
On inside diameter	± 0.50 mm
Length tolerance	± 1%

UNI EN ISO 1307	
On inside diameter	
I.D. $\leq$ 5 mm	± 0.60 mm
I.D. 6 – 20 mm	± 0.80 mm
I.D. > 20 - 25  mm	± 1.20 mm
I.D. > 25 mm	± 1.60 mm
Length tolerance	± 1%

RMA steel mandrel		
On inside diameter		
I.D. ≤ 38 mm	± 0.79 mm	
I.D. 40 – 120 mm	± 1.59 mm	
I.D. > 120 mm	± 2.00 mm	
On outside diameter		
O.D. ≤ 125 mm	± 1.59 mm	
O.D. > 125 mm	± 2.00 mm	
Tolerances on outside diameter are valid		
for hoses without a built-in l	helix only.	
Length tolerance	± 1%	



# **PVC Hose Dimensional Tolerances**

ASPIREX	
On inside diameter	± 4 %
On wall thickness	± 0.50 mm
Length tolerance	± 1 %

ASPIREX (PU/ANC) an	d 140 °C	
On inside diameter	± 4 %	
Length tolerance	± 1 %	

APERFLAT	
On inside diameter	
I.D. ≤ 100 mm	± 1.00 mm
I.D. > 100 mm	± 1.50 mm
Length tolerance	± 1 %

MULTIREX, ENOREX	
On inside diameter	
I.D. ≤ 50 mm	± 0.50 mm
I.D. > 50 mm	± 1.00 mm
On wall thickness	± 0.50 mm
Length tolerance	± 1 %

APERSPIR	
On inside diameter	± 1 %
On wall thickness	± 0.50 mm
Length tolerance	± 1 %

APERFRUT								
On inside diameter								
I.D. ≤ 16 mm	± 0.50 mm							
I.D. > 16 mm	± 1.00 mm							
Length tolerance	± 2 %							

VINITRESS	
On inside diameter	
I.D. ≤ 15 mm	± 0.50 mm
I.D. 16 – 19 mm	± 0.80 mm
I.D. > 19 mm	± 1.00 mm
On wall thickness	± 0.50 mm
Length tolerance	± 1 %

All other technical data are subject to a  $\pm$  5 % tolerance



# **Parker Safety Guide**

#### for Selecting and Using Hose, Tubing, Fittings and Related Accessories

Parker Publication No. 4400-B.1 - Revised: November, 2007



#### **WARNING**

Failure or improper selection or improper use of hose, tubing, fittings, assemblies or related accessories ("Products") can cause death, personal injury and property damage. Possible consequences of failure or improper selection or improper use of these Products include but are not limited to:

- · Fittings thrown off at high speed.
- High velocity fluid discharge.
- Explosion or burning of the conveyed fluid.
- Electrocution from high voltage electric powerlines.
- · Contact with suddenly moving or falling objects that are controlled by the conveyed fluid.
- Injections by high-pressure fluid discharge.
- · Dangerously whipping Hose.
- Contact with conveyed fluids that may be hot, cold, toxic or otherwise injurious.
- Sparking or explosion caused by static electricity buildup or other sources of electricity.
- Sparking or explosion while spraying paint or flammable liquids.
- Injuries resulting from inhalation, ingestion or exposure to fluids.

Before selecting or using any of these Products, it is important that you read and follow the instructions below. Only Hose from Parker's Stratoflex Products Division is approved for in flight aerospace applications.

#### 1.0 GENERAL INSTRUCTIONS

1.1 Scope: This safety guide provides instructions for selecting and using (including assembling, installing, and maintaining) these Products. For convenience, all rubber and/or thermoplastic products commonly called "hose" or "tubing" are called "Hose" in this safety guide. All assemblies made with Hose are called "Hose Assemblies". All products commonly called "fittings", "couplings" or "adapters" are called "Fittings". All related accessories (including crimping and swaging machines and tooling) are called "Related Accessories". This safety guide is a supplement to and is to be used with the specific Parker publications for the specific Hose, Fittings and Related Accessories that are being considered for use. Parker publications are available at www.parker.com. SAE J1273 (www.sae.org) and ISO 17165 2 (www.ansi.org) also provide recommended practices for hydraulic Hose Assemblies.

1.2 Fail-Safe: Hose, Hose Assemblies and Fittings can and do fail without warning for many reasons. Design all systems and equipment in a fail safe mode, so that failure of the Hose, Hose Assembly or Fitting will not endanger persons or property.

- 1.3 Distribution: Provide a copy of this safety guide to each person responsible for selecting or using Hose and Fitting products. Do not select or use Parker Hose or Fittings without thoroughly reading and understanding this safety guide as well as the specific Parker publications for the Products.
- 1.4 User Responsibility: Due to the wide variety of operating conditions and applications for Hose and Fittings, Parker does not represent or warrant that any particular Hose or Fitting is suitable for any specific end use system. This safety guide does not analyze all technical parameters that must be considered in selecting a product. The user, through its own analysis and testing, is solely responsible for:
- Making the final selection of the Products.
- Assuring that the user's requirements are met and that the application presents no health or safety hazards.
- Providing all appropriate health and safety warnings on the equipment on which the Products are used.
- Assuring compliance with all applicable government and industry standards.
- 1.5 Additional Questions: Call the appropriate Parker technical service department if you have any questions or require any additional information. See the Parker publication for the

Products being considered or used, or call 1 800 CPARKER, or go to www.parker.com, for telephone numbers of the appropriate technical service department.

#### 2.0 HOSE AND FITTING SELECTION INSTRUCTIONS

2.1 Electrical Conductivity: Certain applications require that the Hose be nonconductive to prevent electrical current flow. Other applications require the Hose and the Fittings and the Hose/Fitting interface to be sufficiently conductive to drain off static electricity. Extreme care must be exercised when selecting Hose and Fittings for these or any other applications in which electrical conductivity or nonconductivity is a factor. The electrical conductivity or nonconductivity of Hose and Fittings is dependent upon many factors and may be susceptible to change. These factors include but are not limited to the various materials used to make the Hose and the Fittings, Fitting finish (some Fitting finishes are electrically conductive while others are nonconductive), manufacturing methods (including moisture control), how the Fittings contact the Hose, age and amount of deterioration or damage or other changes, moisture content of the Hose at any particular time, and other factors. The following are considerations for electrically nonconductive and conductive Hose. For other applications consult the individual catalog pages and the appropriate industry or regulatory standards for proper selection.

2.1.1 Electrically Nonconductive Hose: Certain applications require that the Hose be nonconductive to prevent electrical current flow or to maintain electrical isolation. For applications that require Hose to be electrically nonconductive, including but not limited to applications near high voltage electric lines, only special nonconductive Hose can be used. The manufacturer of the equipment in which the nonconductive Hose is to be used must be consulted to be certain that the Hose and Fittings that are selected are proper for the application. Do not use any Parker Hose or Fittings for any such application requiring nonconductive Hose, including but not limited to applications near high voltage electric lines, unless (i) the application is expressly approved in the Parker technical publication for the product, (ii) the Hose is marked "nonconductive", and (iii) the manufacturer of the equipment on which the Hose is to be used specifically approves the particular Parker Hose and Fittings for such use.

2.1.2 Electrically Conductive Hose: Parker manufactures special Hose for certain applications that require electrically conductive Hose. Parker manufactures special Hose for conveying paint in



TH36 Catalogue 4401/UK

airless paint spraying applications. This Hose is labeled "Electrically Conductive Airless Paint Spray Hose" on its layline and packaging. This Hose must be properly connected to the appropriate Parker Fittings and properly grounded in order to dissipate dangerous static charge buildup, which occurs in all airless paint spraying applications. Do not use any other Hose for airless paint spraying, even if electrically conductive. Use of any other Hose or failure to properly connect the Hose can cause a fire or an explosion resulting in death, personal injury, and property damage. Parker manufactures a special Hose for certain compressed natural gas ("CNG") applications where static electricity buildup may occur. Parker CNG Hose assemblies comply with the requirements of ANSI/IAS NGV 4.2-1999; CSA 12.52-M99, "Hoses for Natural Gas Vehicles and Dispensing Systems" (www. ansi.org). This Hose is labeled "Electrically Conductive for CNG Use" on its lavline and packaging. This Hose must be properly connected to the appropriate Parker Fittings and properly grounded in order to dissipate dangerous static charge buildup, which occurs in, for example, high velocity CNG dispensing or transfer. Do not use any other Hose for CNG applications where static charge buildup may occur, even if electrically conductive. Use of other Hoses in CNG applications or failure to properly connect or ground this Hose can cause a fire or an explosion resulting in death, personal injury, and property damage. Care must also be taken to protect against CNG permeation through the Hose wall. See section 2.6, Permeation, for more information. Parker CNG Hose is intended for dispenser and vehicle use at a maximum temperature of 180°F (82°C). Parker CNG Hose should not be used in confined spaces or unventilated areas or areas exceeding 180°F (82°C). Final assemblies must be tested for leaks. CNG Hose Assemblies should be tested on a monthly basis for conductivity per ANSI/IAS NGV 4.2-1999; CSA 12.52-M99. Parker manufactures special Hose for aerospace in flight applications. Aerospace in flight applications employing Hose to transmit fuel, lubricating fluids and hydraulic fluids require a special Hose with a conductive inner tube. This Hose for in flight applications is available only from Parker's Stratoflex Products Division. Do not use any other Parker Hose for in flight applications, even if electrically conductive. Use of other Hoses for in flight applications or failure to properly connect or ground this Hose can cause a fire or an explosion resulting in death, personal injury and property damage. These Hose assemblies for in flight applications must meet all applicable aerospace industry, aircraft engine and aircraft requirements.

- 2.2 Pressure: Hose selection must be made so that the published maximum working pressure of the Hose and Fittings are equal to or greater than the maximum system pressure. The maximum working pressure of a Hose Assembly is the lower of the respective published maximum working pressures of the Hose and the Fittings used. Surge pressures or peak transient pressures in the system must be below the published maximum working pressure for the Hose. Surge pressures and peak pressures can usually only be determined by sensitive electrical instrumentation that measures and indicates pressures at millisecond intervals. Mechanical pressure gauges indicate only average pressures and cannot be used to determine surge pressures or peak transient pressures. Published burst pressure ratings for Hose is for manufacturing test purposes only and is no indication that the Product can be used in applications at the burst pressure or otherwise above the published maximum recommended working pressure.
- 2.3 Suction: Hoses used for suction applications must be selected to ensure that the Hose will withstand the vacuum and pressure of the system. Improperly selected Hose may collapse in suction application.
- 2.4 Temperature: Be certain that fluid and ambient temperatures, both steady and transient, do not exceed the limitations of the Hose. Temperatures below and above the recommended limit can degrade Hose to a point where a failure may occur and release fluid. Properly insulate and protect the Hose

Assembly when routing near hot objects (e.g. manifolds). Do not use any Hose in any application where failure of the Hose could result in the conveyed fluids (or vapors or mist from the conveyed fluids) contacting any open flame, molten metal, or other potential fire ignition source that could cause burning or explosion of the conveyed fluids or vapors.

- 2.5 Fluid Compatibility: Hose Assembly selection must assure compatibility of the Hose tube, cover, reinforcement, and Fittings with the fluid media used. See the fluid compatibility chart in the Parker publication for the product being considered or used. This information is offered only as a guide. Actual service life can only be determined by the end user by testing under all extreme conditions and other analysis. Hose that is chemically compatible with a particular fluid must be assembled using Fittings and adapters containing likewise compatible seals.
- 2.6 Permeation: Permeation (that is, seepage through the Hose) will occur from inside the Hose to outside when Hose is used with gases, liquid and gas fuels, and refrigerants (including but not limited to such materials as helium, diesel fuel, gasoline, natural gas, or LPG). This permeation may result in high concentrations of vapors which are potentially flammable, explosive, or toxic, and in loss of fluid. Dangerous explosions, fires, and other hazards can result when using the wrong Hose for such applications. The system designer must take into account the fact that this permeation will take place and must not use Hose if this permeation could be hazardous. The system designer must take into account all legal, government, insurance, or any other special regulations which govern the use of fuels and refrigerants. Never use a Hose even though the fluid compatibility is acceptable without considering the potential hazardous effects that can result from permeation through the Hose Assembly. Permeation of moisture from outside the Hose to inside the Hose will also occur in Hose assemblies, regardless of internal pressure. If this moisture permeation would have detrimental effects (particularly, but not limited to refrigeration and air conditioning systems), incorporation of sufficient drying capacity in the system or other appropriate system safeguards should be selected and used.
- 2.7 Size: Transmission of power by means of pressurized fluid varies with pressure and rate of flow. The size of the components must be adequate to keep pressure losses to a minimum and avoid damage due to heat generation or excessive fluid velocity.
- 2.8 Routing: Attention must be given to optimum routing to minimize inherent problems (kinking or flow restriction due to Hose collapse, twisting of the Hose, proximity to hot objects or heat sources). For additional routing recommendations see SAE J1273 and ISO 17165-2. Hose Assemblies have a finite life and if possible, should be installed in a manner that allows for ease of inspection and future replacement. Rubber Hose because of its relative short life, should not be used in residential and commercial buildings for HVAC (heating, ventilating and air conditioning) applications.
- 2.9 Environment: Care must be taken to ensure that the Hose and Fittings are either compatible with or protected from the environment (that is, surrounding conditions) to which they are exposed. Environmental conditions including but not limited to ultraviolet radiation, sunlight, heat, ozone, moisture, water, salt water, chemicals and air pollutants can cause degradation and premature failure.
- 2.10 Mechanical Loads: External forces can significantly reduce Hose life or cause failure. Mechanical loads which must be considered include excessive flexing, twist, kinking, tensile or side loads, bend radius, and vibration. Use of swivel type Fittings or adapters may be required to ensure no twist is put into the Hose. Unusual applications may require special testing prior to Hose selection.
- 2.11 Physical Damage: Care must be taken to protect Hose from wear, snagging, kinking, bending smaller that minimum bend radius and cutting, any of which can cause premature



# Technical Handbook Parker Safety Guide

Hose failure. Any Hose that has been kinked or bent to a radius smaller than the minimum bend radius, and any Hose that has been cut or is cracked or is otherwise damaged should be removed and discarded.

- 2.12 Proper End Fitting: See instructions 3.2 through 3.5. These recommendations may be substantiated by testing to industry standards such as SAE J517 for hydraulic applications, or MIL-A-5070, AS1339, or AS3517 for Hoses from Parker's Stratoflex Products Division for aerospace applications.
- 2.13 Length: When establishing a proper Hose length, motion absorption, Hose length changes due to pressure, and Hose and machine tolerances and movement must be considered.
- 2.14 Specifications and Standards: When selecting Hose and Fittings, government, industry, and Parker specifications and recommendations must be reviewed and followed as applicable
- 2.15 Hose Cleanliness: Hose components may vary in cleanliness levels. Care must be taken to ensure that the Hose Assembly selected has an adequate level of cleanliness for the application.
- 2.16 Fire Resistant Fluids: Some fire resistant fluids that are to be conveyed by Hose require use of the same type of Hose as used with petroleum base fluids. Some such fluids require a special Hose, while a few fluids will not work with any Hose at all. See instructions 2.5 and 1.5. The wrong Hose may fail after a very short service. In addition, all liquids but pure water may burn fiercely under certain conditions, and even pure water leakage may be hazardous.
- 2.17 Radiant Heat: Hose can be heated to destruction without contact by such nearby items as hot manifolds or molten metal. The same heat source may then initiate a fire. This can occur despite the presence of cool air around the Hose.
- 2.18 Welding or Brazing: When using a torch or arc welder in close proximity to hydraulic lines, the hydraulic lines should be removed or shielded with appropriate fire resistant materials. Flame or weld spatter could burn through the Hose and possibly ignite escaping fluid resulting in a catastrophic failure. Heating of plated parts, including Hose Fittings and adapters, above 450°F (232°C) such as during welding, brazing or soldering may emit deadly gases.
- 2.19 Atomic Radiation: Atomic radiation affects all materials used in Hose assemblies. Since the long-term effects may be unknown, do not expose Hose assemblies to atomic radiation.
- 2.20 Aerospace Applications: The only Hose and Fittings that may be used for in flight aerospace applications are those available from Parker's Stratoflex Products Division. Do not use any other Hose or Fittings for in flight applications. Do not use any Hose or Fittings from Parker's Stratoflex Products Division with any other Hose or Fittings, unless expressly approved in writing by the engineering manager or chief engineer of Stratoflex Products Division and verified by the user's own testing and inspection to aerospace industry standards.
- 2.21 Unlocking Couplings: Ball locking couplings or other Fittings with quick disconnect ability can unintentionally disconnect if they are dragged over obstructions, or if the sleeve or other disconnect member, is bumped or moved enough to cause disconnect. Threaded Fittings should be considered where there is a potential for accidental uncoupling.

# 3.0 HOSE AND FITTING ASSEMBLY AND INSTALLATION INSTRUCTIONS

3.1 Component Inspection: Prior to assembly, a careful examination of the Hose and Fittings must be performed. All components must be checked for correct style, size, catalog number, and length. The Hose must be examined for cleanliness, obstructions, blisters, cover looseness, kinks, cracks, cuts or any other visible defects. Inspect the Fitting and sealing surfaces for burrs, nicks, corrosion or other imperfections. Do NOT use any component that displays any signs of nonconformance.

- 3.2 Hose and Fitting Assembly: Do not assemble a Parker Fitting on a Parker Hose that is not specifically listed by Parker for that Fitting, unless authorized in writing by the engineering manager or chief engineer of the appropriate Parker division. Do not assemble a Parker Fitting on another manufacturer's Hose or a Parker Hose on another manufacturer's Fitting unless (i) the engineering manager or chief engineer of the appropriate Parker division approves the Assembly in writing or that combination is expressly approved in the appropriate Parker literature for the specific Parker product, and (ii) the user verifies the Assembly and the application through analysis and testing. For Parker Hose that does not specify a Parker Fitting, the user is solely responsible for the selection of the proper Fitting and Hose Assembly procedures. See instruction 1.4. To prevent the possibility of problems such as leakage at the Fitting or system contamination, it is important to completely remove all debris from the cutting operation before installation of the Fittings. The Parker published instructions must be followed for assembling the Fittings on the Hose. These instructions are provided in the Parker Fitting catalog for the specific Parker Fitting being used, or by calling 1 800 CPARKER, or at www.parker.com.
- 3.3 Related Accessories: Do not crimp or swage any Parker Hose or Fitting with anything but the listed swage or crimp machine and dies in accordance with Parker published instructions. Do not crimp or swage another manufacturer's Fitting with a Parker crimp or swage die unless authorized in writing by the engineering manager or chief engineer of the appropriate Parker division.
- 3.4 Parts: Do not use any Parker Fitting part (including but not limited to socket, shell, nipple, or insert) except with the correct Parker mating parts, in accordance with Parker published instructions, unless authorized in writing by the engineering manager or chief engineer of the appropriate Parker division.
- 3.5 Field Attachable/Permanent: Do not reuse any field attachable Hose Fitting that has blown or pulled off a Hose. Do not reuse a Parker permanent Hose Fitting (crimped or swaged) or any part thereof. Complete Hose Assemblies may only be reused after proper inspection under section 4.0. Do not assemble Fittings to any previously used hydraulic Hose that was in service, for use in a fluid power application.
- 3.6 Pre-Installation Inspection: Prior to installation, a careful examination of the Hose Assembly must be performed. Inspect the Hose Assembly for any damage or defects. DO NOT use any Hose Assembly that displays any signs of nonconformance.
- 3.7 Minimum Bend Radius: Installation of a Hose at less than the minimum listed bend radius may significantly reduce the Hose life. Particular attention must be given to preclude sharp bending at the Hose to Fitting juncture. Any bending during installation at less than the minimum bend radius must be avoided. If any Hose is kinked during installation, the Hose must be discarded.
- 3.8 Twist Angle and Orientation: Hose Assembly installation must be such that relative motion of machine components does not produce twisting.
- 3.9 Securement: In many applications, it may be necessary to restrain, protect, or guide the Hose to protect it from damage by unnecessary flexing, pressure surges, and contact with other mechanical components. Care must be taken to ensure such restraints do not introduce additional stress or wear points.
- 3.10 Proper Connection of Ports: Proper physical installation of the Hose Assembly requires a correctly installed port connection insuring that no twist or torque is transferred to the Hose when the Fittings are being tightened or otherwise during use.
- 3.11 External Damage: Proper installation is not complete without insuring that tensile loads, side loads, kinking, flattening, potential abrasion, thread damage or damage to sealing surfaces are corrected or eliminated. See instruction 2.10.



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- 3.12 System Checkout: All air entrapment must be eliminated and the system pressurized to the maximum system pressure (at or below the Hose maximum working pressure) and checked for proper function and freedom from leaks. Personnel must stay out of potential hazardous areas while testing and using.
- 3.13 Routing: The Hose Assembly should be routed in such a manner so if a failure does occur, the escaping media will not cause personal injury or property damage. In addition, if fluid media comes in contact with hot surfaces, open flame or sparks, a fire or explosion may occur. See section 2.4.
- 3.14 Ground Fault Equipment Protection Devices (GFEPDs): WARNING! Fire and Shock Hazard: To minimize the danger of fire if the heating cable of a Multitube bundle is damaged or improperly installed, use a Ground Fault Equipment Protection Device. Electrical fault currents may be insufficient to trip a conventional circuit breaker. For ground fault protection, the IEEE 515:1989 (www.ansi.org) standard for heating cables recommends the use of GFEPDs with a nominal 30 milliampere trip level for "piping systems in classified areas, those areas requiring a high degree of maintenance, or which may be exposed to physical abuse or corrosive atmospheres".

# 4.0 HOSE AND FITTING MAINTENANCE AND REPLACEMENT INSTRUCTIONS

- 4.1 Even with proper selection and installation, Hose life may be significantly reduced without a continuing maintenance program. The severity of the application, risk potential from a possible Hose failure, and experience with any Hose failures in the application or in similar applications should determine the frequency of the inspection and the replacement for the Products so that Products are replaced before any failure occurs. A maintenance program must be established and followed by the user and, at minimum, must include instructions 4.2 through 4.7.
- 4.2 Visual Inspection Hose/Fitting: Any of the following conditions require immediate shut down and replacement of the Hose Assembly:
- Fitting slippage on Hose;
- Damaged, cracked, cut or abraded cover (any reinforcement exposed);
- Hard, stiff, heat cracked, or charred Hose;
- Cracked, damaged, or badly corroded Fittings;
- Leaks at Fitting or in Hose;
- Kinked, crushed, flattened or twisted Hose; and
- Blistered, soft, degraded, or loose cover.
- 4.3 Visual Inspection All Other: The following items must be tightened, repaired, corrected or replaced as required:
- Leaking port conditions;
- Excess dirt buildup;
- Worn clamps, guards or shields; and
- · System fluid level, fluid type, and any air entrapment.
- 4.4 Functional Test: Operate the system at maximum operating pressure and check for possible malfunctions and leaks. Personnel must avoid potential hazardous areas while testing and using the system. See section 2.2.
- 4.5 Replacement Intervals: Hose assemblies and elastomeric seals used on Hose Fittings and adapters will eventually age, harden, wear and deteriorate under thermal cycling and compression set. Hose Assemblies and elastomeric seals should be inspected and replaced at specific replacement intervals, based on previous service life, government or industry recommendations, or when failures could result in unacceptable downtime, damage, or injury risk. See section 1.2. Hose and Fittings may be subjected to internal mechanical and/or chemical wear from the conveying fluid and may fail without warning. The user must determine the product life under such circumstances by testing. Also see section 2.5. See section 1.2.
- 4.6 Hose Inspection and Failure: Hydraulic power is accomplished by utilizing high pressure fluids to transfer energy and do work. Hoses, Fittings and Hose Assemblies all contribute to

- this by transmitting fluids at high pressures. Fluids under pressure can be dangerous and potentially lethal and, therefore, extreme caution must be exercised when working with fluids under pressure and handling the Hoses transporting the fluids. From time to time, Hose Assemblies will fail if they are not replaced at proper time intervals. Usually these failures are the result of some form of misapplication, abuse, wear or failure to perform proper maintenance. When Hoses fail, generally the high pressure fluids inside escape in a stream which may or may not be visible to the user. Under no circumstances should the user attempt to locate the leak by "feeling" with their hands or any other part of their body. High pressure fluids can and will penetrate the skin and cause severe tissue damage and possibly loss of limb. Even seemingly minor hydraulic fluid injection injuries must be treated immediately by a physician with knowledge of the tissue damaging properties of hydraulic fluid. If a Hose failure occurs, immediately shut down the equipment and leave the area until pressure has been completely released from the Hose Assembly. Simply shutting down the hydraulic pump may or may not eliminate the pressure in the Hose Assembly. Many times check valves, etc., are employed in a system and can cause pressure to remain in a Hose Assembly even when pumps or equipment are not operating. Tiny holes in the Hose, commonly known as pinholes, can eject small, dangerously powerful but hard to see streams of hydraulic fluid. It may take several minutes or even hours for the pressure to be relieved so that the Hose Assembly may be examined safely. Once the pressure has been reduced to zero, the Hose Assembly may be taken off the equipment and examined. It must always be replaced if a failure has occurred. Never attempt to patch or repair a Hose Assembly that has failed. Consult the nearest Parker distributor or the appropriate Parker division for Hose Assembly replacement information. Never touch or examine a failed Hose Assembly unless it is obvious that the Hose no longer contains fluid under pressure. The high pressure fluid is extremely dangerous and can cause serious and potentially fatal injury.
- 4.7 Elastomeric seals: Elastomeric seals will eventually age, harden, wear and deteriorate under thermal cycling and compression set. Elastomeric seals should be inspected and replaced.
- 4.8 Refrigerant gases: Special care should be taken when working with refrigeration systems. Sudden escape of refrigerant gases can cause blindness if the escaping gases contact the eye and can cause freezing or other severe injuries if it contacts any other portion of the body.
- 4.9 Compressed natural gas (CNG): Parker CNG Hose Assemblies should be tested after installation and before use, and at least on a monthly basis per ANSI/IAS NGV 4.2-1999; CSA 12.52-M99 Section 4.2 "Visual Inspection Hose/ Fitting". The recommended procedure is to pressurize the Hose and check for leaks and to visually inspect the Hose for damage. Caution: Matches, candles, open flame or other sources of ignition shall not be used for Hose inspection. Leak check solutions should be rinsed off after use.

#### **5.0 HOSE STORAGE**

- 5.1 Age Control: Hose and Hose Assemblies must be stored in a manner that facilitates age control and first-in and first-out usage based on manufacturing date of the Hose and Hose Assemblies. The shelf life of rubber Hose or Hose Assemblies that have passed visual inspection and a proof test is 10 years (40 quarters) from the date of manufacture. The shelf life of thermoplastic and polytetrafluoroethylene Hose or Hose Assemblies is considered to be unlimited.
- 5.2 Storage: Stored Hose and Hose Assemblies must not be subjected to damage that could reduce their expected service life and must be placed in a cool, dark and dry area with the ends capped. Stored Hose and Hose Assemblies must not be exposed to temperature extremes, ozone, oils, corrosive liquids or fumes, solvents, high humidity, rodents, insects, ultraviolet light, electromagnetic fields or radioactive materials.



# **Critical Applications**

# Saftey Overview

It is important to employ safe practices in the use of industrial hose due to the number of potentially dangerous applications encountered and products conveyed, and the number of people that may be involved or exposed. Strictly observe these simple practices to help avoid accidents.

• Training: Train all operators thoroughly

• Evaluation: Evaluate the application to determine the hose performance requirements

• Selection: Select the most appropriate hose and couplings for the application; ensure that the couplings are

compatible with the media and hose, and securely attached to the hose

• Service: Regularly inspect and maintain both the hose and couplings while in service

While many industrial hose applications are potentially dangerous, some are of particular concern because their danger may not be readily apparent. This is especially true for applications involving untrained or inexperienced operators.

# Aircraft Fueling Hose

Use only API/ISO qualified hose for aircraft fueling applications. Aircraft fueling hose incorporates high grade rubber compounds that dissipate static charges and will not contaminate fuel.

**Note:** To avoid fuel contamination do not use gasoline dispenser or farm pump hose to fuel aircraft.

### Anhydrous Ammonia (NH3) Hose

Many accidents involving anhydrous ammonia occur due to selection of an incorrect hose for the application. Anhydrous ammonia hose must be specially designed and compounded to handle the media, with a perforated cover to prevent gas build-up amidst the layers of hose.

**WARNING!** Use ONLY anhydrous ammonia hose for anhydrous ammonia service. Contact with anhydrous ammonia in its liquid or gaseous (vapor) phase will burn skin, eyes and lungs, causing serious bodily injury or death.

- Do not use anhydrous ammonia hose for LPG service. It may fail suddenly and quickly. Anhydrous ammonia hose and LPG hose are frequently used in proximity and may be accidentally switched.
- Do not use with couplings containing o-rings, which may dry out, crack and fail over time. Do not use with male swivel couplings or other couplings containing hidden o-rings.

Anhydrous ammonia hose is designed to allow a limited amount of permeation of gas through the wall of the hose when in service, and staining of the hose cover in the pinpricked areas does not necessarily indicate leakage for a hose in service. However, a visible gas mist escaping through the hose is an indication of leakage. To verify the integrity of a hose in service, perform a hydrostatic test on the assembly; immediately remove from service any that fail the test.

**Note:** For non-agricultural or refrigeration applications, contact Parker.



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#### Chemical Hose

A chemical hose system failure could cause the release of poisonous, corrosive, or flammable material resulting in property damage, serious bodily injury or death. All reputable manufacturers of chemical hose recommend specific hose constructions to handle various chemicals.

Refer to the chemical guides in this catalog, or contact Parker for technical assistance before using or recommending a hose product.

#### Handling

- Use care to prevent mishandling. Crushing or kinking of the hose can cause severe damage to the reinforcement.
- Use proper hose suspension equipment when lifting or dragging a hose to ensure that the recommended curvature is not exceeded. Avoid sharp bends at the end fittings and at manifold connections.

#### Operation

 Use safety precautions such as wearing eye or face protection, rubber gloves, boots, and other types of protective clothing.

- Monitor pressures and temperatures to ensure that the hose is not exposed to conditions above specified limits.
- Do not allow chemicals to contact the exterior of the hose or allow hose to lie in a pool of chemicals since the hose cover may not have the same level of corrosion resistance as the tube. Corrosive materials that come into contact with the reinforcing material will cause reduced service life and premature hose failure.

#### **Temperature**

Do not use chemical hose at pressures or temperatures exceeding those as specified for the product. Many chemical resistance guides are based on temperatures of 70°F (21°C). Elevated temperatures can change the chemical resistance ratings. Many chemicals will become more aggressive as temperatures increase, reducing the ability of hose compounds to withstand them. Contact Parker for chemical compatibility data at elevated temperatures. If no data exists, end users are required to perform compatibility testing at the desired temperature.

### Gasoline Dispenser Hose

Millions of consumers operate gasoline pumps every day, increasing the concern for the safe use of dispensing equipment, including the hose. Since gasoline dispenser hoses are subject to frequent abuse, hose selection must include consideration of the rigors of the application. For maximum service life, select only the highest quality.

**Note:** To avoid fuel contamination do not use gasoline dispenser or farm pump hose to fuel aircraft.

# LP Gas (Propane) Hose

Many accidents involving LP Gas occur due to selection of an incorrect hose for the application. LP Gas hose must be specially designed and compounded to handle the media, with a perforated cover to prevent gas build-up amidst the layers of the hose.

**WARNING!** Use ONLY LP Gas hose for LP Gas service. LP Gas possesses volatile characteristics that may produce fire or explosions causing property damage, serious bodily injury or death.

- Do not use LP Gas hose for anhydrous ammonia service. It may fail suddenly and quickly. Anhydrous ammonia hose and LPG hose are frequently used in proximity and may be accidentally switched.
- Do not use with couplings containing o-rings, which may dry out, crack and fail over time. Do not use with male swivel couplings or other couplings containing hidden o-rings.

LP Gas hose is designed to allow a limited amount of permeation of LP Gas through the wall of the hose when in service. The permeation is apparent when the hose is moist or in water, and bubbles may be perceived as leakage. However, a legitimate propane leak creates a frosting or icing on the surface of the hose or coupling.

To verify the integrity of a hose in service, perform a hydrostatic test on the assembly; immediately remove from service any hose that fails the test.



#### Natural Gas and LP Gas Hose

The molecules of natural gas are small, enhancing their ability to permeate through standard rubber or PVC hose constructions. The permeation process is more rapid as the working pressure increases, and natural gas accumulates with potentially dangerous consequences.

- Use only in a well-ventilated environment: Outdoors, or indoors with significant continuous air movement.
- Do not use LP Gas hose to replace fixed/rigid pipe where that material is more appropriate due to reduced permeation, overall strength and durability.
   Use rigid pipe, non-permeable tubing or hose with barrier constructions to convey natural gas whenever possible.

#### Petroleum Transfer Hose

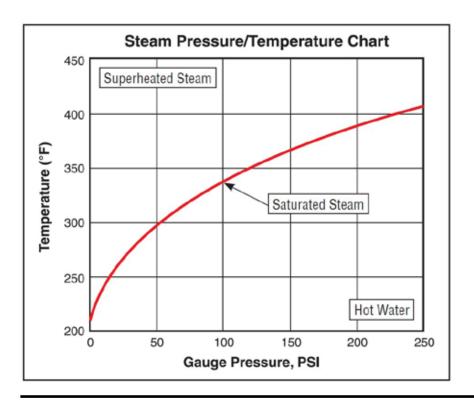
- Do not use for oil or fuel transfer service in or on open water. Hose damage or failure may result in spillage and environmental damage. Use hose specifically designed for this application.
- Do not immerse in fuel. The hose cover compound may not be of sufficient grade to resist attack by the fuel. Use hose specifically designed for this application.

#### Steam Hose

Water changes to hot water and phases of steam when subjected to heat and pressure. The greater the pressure, the higher the temperature required to achieve and maintain a steam phase. If steam escapes, dangerous quantities of heat may be released very suddenly.

**WARNING!** Hot water, low pressure steam and high pressure steam may escape explosively and will scald skin, eyes and lungs, which may lead to severe bodily injury or death.

- Many steam systems incorporate detergents or rust inhibitors which may attack steam hose. Prior to using a steam hose with detergents or rust inhibitors, refer to the chemical guides in this catalog, or contact Parker.
- Drain steam hose after each use to reduce the possibility of hose popcorning while in service.
   The chart at the right represents the three forms of water when subjected to various combinations of heat and pressure. The red line represents the point at which hot water becomes saturated steam. The area below the red line is hot water; the area above the red line is superheated steam.





# Welding Hose

Many accidents involving welding hose occur due to selection of an incorrect hose for the application. Welding hose must be specially designed and compounded to handle the media. Due to the extreme volatility of gases, the varying compatibility of gases with the various grades of hose, and the rough environment of many welding applications, it is crucial to select the correct welding hose.

**WARNING!** Welding gases possess volatile characteristics that may produce fire or explosions causing property damage, serious bodily injury or death.

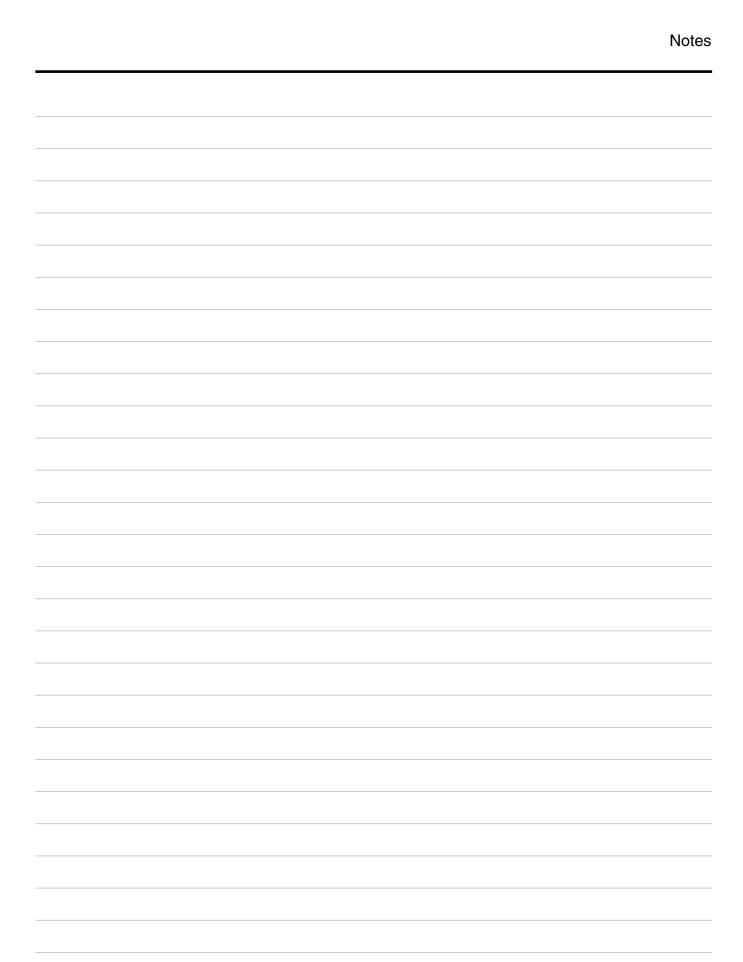
- Replace all assemblies that show signs of abrading, abuse, age, damage or fatigue. Do not attempt to recouple, repair or splice hose assemblies.
- Fabricate hose assemblies using only crimped-on ferrules at least 25 mm long to ensure coverage and support of the coupling stem inside the hose.
- Couplings attached with bands or clamps may reduce the working pressure of the hose assembly to less than the maximum rated working pressure of the hose.

# PVC / Thermoplastic Hose

Thermoplastic polymer compounds are designed to resist deterioration when exposed to a wide range of commercial chemicals and environmental conditions. The resistance to attack is based on many factors, including temperature, pressure, chemical concentration, exposure to ultraviolet light, velocity of the media and duration of exposure/ service (intermittent or constant). The user is solely responsible for making the final selection of the hose and tubing, and meeting all endurance, maintenance, performance, safety and warning requirements of the application.

**WARNING!** As temperature increases or decreases, burst pressure, safe working pressure, coupling retention properties, and other safety characteristics of the hose can significantly decrease. Failure to consider how temperature and other conditions affect hose performance may cause property damage, serious bodily injury or death.











aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding

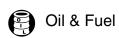




Oil & Fuel







# A - Oil & Fuel

Hose	ID Range (mm)	Temp. Range (°C)	Application
CARBOPRESS N/L 10	5 - 25	-25 / +80	fuel, oil, petrol aromatic < 50 %
CARBOPRESS N/L 20	6 - 25	-25 / +80	fuel, oil, petrol aromatic < 50 %
CARBURITE 10	19 - 150	-25 / +80	fuel, oil, petrol aromatic < 50 %
CARBOCORD EN 12115	19 - 100	-25 / +80	fuel, oil, petrol aromatic < 50 %
CHEMIOEL EN 12115	19 - 100	-25 / +80	fuel, oil, petrol aromatic < 50 %
CHEMIOEL EN 12115 OND	19 - 100	-25 / +80	fuel, oil, petrol aromatic < 50 %
CERVINO EN 12115	50 - 100	-40 / +80	fuel, oil, petrol aromatic < 50 %
CARBOPRESS D EN 1360/1	16 - 25	-25 / +55	petrol pumps
RAGUSA 4	38 - 100	-25 / +80	fuel, oil, petrol aromatic < 50 %
GASTRUCK EN 1762 D-M	13 - 50	-30 / +70	LPG/ CNG load tankers
ROBUR GPL	6.5 - 51	-30 / +70	LPG/ CNG load & unload tankers
JETCORD B ISO 1825	25 - 100	-40 / +70	aircraft refuelling
JETCORD C ISO 1825	25 - 100	-40 / +70	aircraft refuelling
JETCORD E ISO 1825	25 - 100	-40 / +70	aircraft refuelling
JETCORD F ISO 1825	25 - 100	-40 / +70	aircraft refuelling
JETCORD XT/C	25 - 100	-40 / +70	aircraft refuelling



Tube	Reinforce- ment	Cover	WP (bar)	Safety factor	Suction	Industry standard	Page
NBR	textile	NBR/EPDM	10	3			<b>A</b> 4
NBR	textile	NBR/EPDM	20	3			<b>A</b> 4
NBR	textile	NBR/SBR	10	3	yes		<b>A</b> 5
NBR	textile + copper wires	NBR/SBR	16	4		EN 12115	<b>A</b> 6
NBR	textile + copper wires	NBR/SBR	16	4	yes	EN 12115	A7
NBR	textile + copper wires	NBR/SBR	10	4	yes	EN12115	<b>A8</b>
NBR	textile + copper wires	NBR/SBR	16	4	yes	EN 12115	<b>A</b> 9
NBR	textile + copper wires	CR	16	4		EN 1360/1	A10
NBR	textile + copper wires	NBR/SBR	16	4	yes		A11
NBR	textile + copper wires	NBR/SBR	25	4		EN 1762	A12
NBR	steel wire	SBR/CR	25	10			A13
NBR	textile + copper wires	CR	20	4		EN ISO 1825 Type B	A14
NBR	textile	CR	20	4		EN ISO 1825 Type C	A15
NBR	textile	CR	20	4	yes	EN ISO 1825 Type E	A16
NBR	textile	CR	20	4	yes	EN ISO 1825 Type F	A17
NBR	textile	CR	20	4		API 1529 Type C - Grade 2	A18



# CARBOPRESS N/L 10 - 20

Suitable for fuel oils, petrol and diesel having an aromatic content not exceeded 50 % and also for grease.

#### Hose Construction

Tube: Black, smooth,

NBR rubber compound

Reinforcement: Synthetic textile yarns

Cover: Black, smooth, abrasion, oil, fuel,

and weather-resistant, antistatic (R < 1  $M\Omega/m$ ) special NBR/EPDM

rubber compound

#### Temperature Range

-25 °C (-13 °F) to +80 °C (+176 °F) up to +100 °C (+212 °F) for oil



- Dual pressure lines
- Also suitable for water and air in general service applications
- Burst Pressure Value 3:1

#### Tolerances

According to UNI EN ISO 1307
Refer to Technical Handbook on page TH34

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock		
	<b>I.D.</b> (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm			
CARBOPRESS N/L 10										
IH30501001/100	5	12	1.0	150.0	10	0.12	40	Υ		
IH30511003/100	6	12	1.0	150.0	10	0.11	50	Υ		
IH30511002/100	6	13	1.0	150.0	10	0.14	50	Υ		
IH30501002/100	8	15	1.0	150.0	10	0.17	65	Υ		
IH30501003/100	10	17	1.0	150.0	10	0.20	80	Υ		
IH30501004/100	13	20	1.0	150.0	10	0.24	105	Υ		
IH30511004/100	16	23	1.0	150.0	10	0.29	130	Υ		
IH30501006/40	19	27	1.0	150.0	10	0.39	150	Υ		
IH30501007/50	25	35	1.0	150.0	10	0.63	200	Υ		
CARBOPRESS N/L 20	)									
IH30502001/100	6	14	2.0	300.0	20	0.17	50	Υ		
IH30502002/100	8	17	2.0	300.0	20	0.24	65	Υ		
IH30502003/100	10	19	2.0	300.0	20	0.27	80	Υ		
IH30512006/100	13	23	2.0	300.0	20	0.38	105	Ν		
IH30512010/80	16	26	2.0	300.0	20	0.44	130	Ν		
IH30512010/40	16	26	2.0	300.0	20	0.44	130	Υ		
IH30512007/80	19	30	2.0	300.0	20	0.57	150	Ν		
IH30512007/40	19	30	2.0	300.0	20	0.57	150	Ν		
IH30512009/50	25	36	2.0	90.0	20	0.71	200	Ν		
IH30512009/40	25	36	2.0	90.0	20	0.71	200	Ν		







# **CARBURITE 10**

Designed for suction and delivery of mineral oils and fuels (with aromatic content not exceeding 50 %) in road and rail tankers, service stations and refineries.

#### Hose Construction

Tube: Black, smooth, NBR rubber com-

> pound, resistant to oil and fuel with an aromatic content not exceeding

50 %

Reinforcement: Synthetic textile fabrics and

embedded steel wire helix

Cover: Black, smooth, antistatic

> $(R < 1 M\Omega/m) NBR/SBR rubber$ compound, oil, fuel, abrasion, ageing and weather resistant

#### Temperature Range

-30 °C (-22 °F) to +80 °C (+176 °F) up to +100 °C (+212 °F) for oil



- Also suitable for water and air in general service applications
- Crimped solution with 48 series and Large Bore series
- Vacuum 0.8 bar (600 mm Hg)
- Burst Pressure Value 3:1

#### **Tolerances**

According to RMA steel mandrel Refer to Technical Handbook on page TH34

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH36530099/40	19	29	1.0	150.0	10	0.61	120	Υ
IH36531004/40	25	35	1.0	150.0	10	0.80	150	Υ
IH36530201/40	30	40	1.0	150.0	10	0.92	180	Υ
IH36531012/40	32	42	1.0	150.0	10	0.98	190	Υ
IH36530202/40	35	45	1.0	150.0	10	1.05	210	Υ
IH36531002/40	38	48	1.0	150.0	10	1.13	240	Υ
IH36530203/40	40	50	1.0	150.0	10	1.18	240	Υ
IH36530212/40	42	52	1.0	150.0	10	1.22	252	Y
IH36530204/40	45	55	1.0	150.0	10	1.31	270	Υ
IH36530205/40	50	60	1.0	150.0	10	1.46	300	Υ
IH36530206/40	60	71	1.0	150.0	10	1.89	360	Υ
IH36531001/40	63.5	75	1.0	150.0	10	2.09	380	Υ
IH36530207/20	70	82	1.0	150.0	10	2.47	420	Υ
IH36530208/20	75	87	1.0	150.0	10	2.68	450	Υ
IH36530209/20	80	92	1.0	150.0	10	2.84	480	Υ
IH36531003/20	90	104	1.0	150.0	10	3.64	540	Y
IH36530211/20	100	114	1.0	150.0	10	4.02	600	Υ
IH36531019/20	110	124	1.0	150.0	10	4.29	660	Υ
IH36531050/10	150	170	1.0	150.0	10	7.27	900	Ν







# **CARBOCORD EN 12115**

#### According to EN 12115

Suitable for delivery of oil and fuel with an aromatic content not exceeding 50 %.

#### Hose Construction

Tube: Black, smooth, NBR rubber com-

pound, resistant to oil and fuel with an aromatic content not exceeding

50 %.

Reinforcement: Synthetic textile fabrics and built-in

copper wires to provide electrical

continuity between both ends.

Black, smooth, NBR/SBR rubber compound, antistatic (R < 1 M $\Omega$ /m),

oil, fuel, abrasion, ageing and

weather resistant.

#### Temperature Range

Cover:

-25 °C (-13 °F) to +80 °C (+176 °F) up to +100 °C (+212 °F) for oil



- Meets TRbF 131 Teil 2 par 5.5 (flame resistance)
- Optimal for tank truck application
- Electrical continuity guaranteed by copper wires if correctly assembled
- Burst Pressure Value 4:1

#### Tolerances

According to EN 12115

Part Number			Working Pressure			Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36522309/40	19	31	1.6	232.0	16	0.60	125	N
IH36522310/40	25	37	1.6	232.0	16	0.89	150	Υ
IH36522311/40	32	44	1.6	232.0	16	1.00	175	Υ
IH36522312/40	38	51	1.6	232.0	16	1.30	225	Υ
IH36522313/40	50	66	1.6	232.0	16	2.00	275	Υ
IH36522314/40	63.5	79	1.6	232.0	16	2.40	300	Υ
IH36522315/40	75	91	1.6	232.0	16	2.80	350	Υ
IH36522316/40	100	116	1.2	180.0	12	3.80	450	Υ



# **CHEMIOEL EN 12115**

#### According to EN 12115

Designed for suction and delivery of mineral oils and fuels with an aromatic content not exceeding 50 %.

#### Hose Construction

Tube: Black, smooth, NBR rubber com-

pound, resistant to oil and fuel with an aromatic content not exceeding

50 %

Reinforcement: Synthetic textile fabrics, embedded

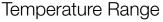
steel wire helix and built-in copper wire to facilitate the electrical connection between the hose and the

end couplings

Cover: Black, smooth, NBR/SBR rubber

compound, antistatic

(R < 1 M $\Omega/m$ ), oil, fuel, abrasion, ageing and weather resistant



-25 °C (-13 °F) to +80 °C (+176 °F) up to +100 °C (+212 °F) for oil



- Meets TRbF 131 Teil 2 par 5.5 (flame resistance)
- Optimal for tank truck application
- Crimped solution with 48 series and Large Bore series
- Vacuum 0.9 bar for ID up to 63.5 mm then 0.8 bar
- Burst Pressure Value 4:1

#### Tolerances

According to EN 12115

Part Number			🖫 w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH36530229/40	19	31	1.6	232.0	16	0.70	125	Υ
IH36530230/40	25	37	1.6	232.0	16	0.90	150	Υ
IH36530231/40	32	44	1.6	232.0	16	1.20	175	Υ
IH36530232/40	38	51	1.6	232.0	16	1.50	225	Υ
IH36530233/40	50	66	1.6	232.0	16	2.30	275	Υ
IH36530234/40	63.5	79	1.6	232.0	16	2.80	300	Υ
IH36530235/40	75	91	1.6	232.0	16	3.30	350	Υ
IH36530236/20	100	116	1.2	180.0	12	4.70	450	Υ

# **CHEMIOEL EN 12115 OND**

#### According to EN 12115

Specially designed for suction and delivery of mineral oils and fuels with an aromatic content not exceeding 50 %, mud and hydrocarbons for trucks when a lightweight and flexible hose is required.

#### Hose Construction

Tube: Black, smooth, NBR rubber com-

pound, resistant to oil and fuel with an aromatic content not exceeding

50 %

Reinforcement: Synthetic textile fabrics, embedded

steel wire helix and built-in a copper wire to facilitate the electrical connection between the hose and

the end couplings

Cover: Black, smooth, NBR/SBR rubber

compound, antistatic (R < 1 M $\Omega$ /m),

oil, fuel, abrasion, ageing and

weather resistant



- Meets TRbF 131 Teil 2 par 5.5 (flame resistance)
- Very low bending radius
- Electrical continuity guaranteed by copper wires if correctly assembled
- Vacuum 0.9 bar
- Burst Pressure Value 4:1

#### Temperature Range

-25 °C (-13 °F) to +80 °C (+176 °F) up to +100 °C (+212 °F) for oil

#### **Tolerances**

According to EN 12115

Part Number			Working Pressure				min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36530250/40	19	_	1.0	150.0	10	0.77	60	N
IH36530251/40	25	_	1.0	150.0	10	0.95	75	N
IH36530252/40	32	_	1.0	150.0	10	1.15	100	Ν
IH36530253/40	38	-	1.0	150.0	10	1.50	120	Ν
IH36530254/40	50	_	1.0	150.0	10	2.22	150	Υ
IH36530255/40	63.5	-	1.0	150.0	10	2.72	190	Ν
IH36530256/20	75	_	1.0	150.0	10	3.22	225	Ν
IH36530257/20	100	-	1.0	150.0	10	5.04	300	N





### **CERVINO EN 12115**

#### According to EN 12115

Suction and delivery of mineral oils and fuels, with an aromatic content not exceeding 50 %. The special compounds make the hose specially indicated for outdoor applications, when low temperature conditions are implicated.

#### **Hose Construction**

Tube: Black, smooth, NBR rubber com-

pound, resistant to oil and fuel with an aromatic content not exceeding

50 %

Reinforcement: Synthetic textile fabrics, embedded

steel wire helix and built-in copper wire to facilitate the electrical connection between the hose and the

end couplings

Cover: Black, smooth, abrasion resist-

ance NBR/SBR rubber compound, antistatic (R < 1 M $\Omega$ /m), oil, fuel, low temperature, ageing and weather

resistant



- Technology nitrogen tested for safe air applications
- Cold bend tested as per ISO 4672 without cracks
- Good result on cover abrasion test as per ISO 6945
- Crimped solution with 48 series and Large Bore series
- Vacuum 0.8 bar (600 mm Hg)
- Burst Pressure Value 4:1

#### Temperature Range

 $-40 \, ^{\circ}\text{C} (-40 \, ^{\circ}\text{F}) \text{ to } +80 \, ^{\circ}\text{C} (+176 \, ^{\circ}\text{F})$  up to  $+100 \, ^{\circ}\text{C} (+212 \, ^{\circ}\text{F})$  for oil

#### **Tolerances**

According to EN 12115

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH36530430/40	50	66	1.6	232.0	16	2.30	200	Υ
IH36530431/40	63.5	79	1.6	232.0	16	2.80	250	Υ
IH36530432/40	75	91	1.6	232.0	16	3.30	300	Υ
IH36530433/40	100	116	1.2	180.0	12	4.70	400	Υ



# **RAGUSA 4**

Suitable for suction and delivery of mineral oils and fuels having an aromatic content not exceeding 50 %, when a lightweight and flexible hose is required.

#### Hose Construction

Tube: Black, smooth, NBR rubber com-

pound, resistant to oil and fuel with an aromatic content not exceeding

50 %

Reinforcement: Synthetic textile fabrics, embedded

steel wire helix and built-in copper wire for electrical continuity at both

ends

Cover: Black, oil, fuel, abrasion and weath-

er resistant, antistatic (R < 1  $M\Omega/m$ )

corrugated NBR/SBR rubber compound. Generally manufactured

with soft cuffed ends and supplied

in lengths required



- Very low bending radius
- Customized length
- Soft cuffed ends for clamps fixing
- Burst Pressure Value 4:1

#### Temperature Range

-25 °C (-13 °F) to +80 °C (+176 °F) up to +100 °C (+212 °F) for oil

#### **Tolerances**

According to RMA steel mandrel Refer to Technical Handbook on page TH34

Part Number	<b>O</b>		Working Pressure			Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36538099/0	38	_	0.4	58.0	4	1.10	150	N
IH36538100/0	40	-	0.4	58.0	4	1.15	160	N
IH36538101/0	50	_	0.4	58.0	4	1.39	200	Ν
IH36538106/0	60	-	0.4	58.0	4	1.80	240	Ν
IH36538105/0	63.5	_	0.4	58.0	4	1.89	250	Ν
IH36538102/0	75	-	0.4	58.0	4	2.19	300	Ν
IH36538103/0	80	_	0.4	58.0	4	2.32	320	Ν
IH36538104/0	100	_	0.4	58.0	4	3.08	400	N

N° PROGRESS. MATRIC.

RAGUSA MADE IN ITALY

→Parker





## CARBOPRESS D EN 1360/1

### According to EN 1360 type 1

Designed for dispensing metered quantities of automotive fuels from dispensing equipment (petrol pumps). Resistant to leaded and unleaded petrol (gasoline) with an aromatic content not exceeding 50 %.

#### Hose Construction

Tube: Black, smooth, NBR rubber com-

pound, antistatic (R < 1 M $\Omega$ /m)

Reinforcement: Synthetic textile yarns providing

low dilation. Built-in copper wires to allow electrical continuity between

fittings

Cover: Black, smooth, non-staining and

antistatic (R < 1 M $\Omega$ /m) CR rubber compound resistant to abrasion, oil,

fuel and weathering

### Temperature Range

-25 °C (-13 °F) to +55 °C (+131 °F)



- Electrical continuity guaranteed by copper wires if correctly assembled
- Designed for petrol pumps
- Suitable for diesel and gasoline
- Burst Pressure Value 4:1

#### Tolerances

On inside diameter

 $\leq$  I.D. 19 mm  $\pm$  0.80 mm > I.D. 19 mm  $\pm$  1.25 mm

On outside diameter

 $\leq$  O.D. 31 mm  $\pm$  0.80 mm > O.D. 31 mm  $\pm$  1.25 mm Length tolerance  $\pm$  1 %

Part Number			Working Pressure			Weight	min. Bend Radius	in Stock
	I.D. (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH30502420/90	16	26	1.6	232.0	16	0.47	80	Υ
IH30502421/80	18	30	1.6	232.0	16	0.64	90	Υ
IH30502407/50	19	31	1.6	232.0	16	0.63	95	Υ
IH36521140/40*	25	37	1.6	232.0	16	0.74	150	Υ

<sup>\*</sup> CARBOCORD D EN1360/1 Mandrel Made Production

CARBOPRESS D EN 1360:2005 Type 1 - I.D.mm - 16 bar - M - MADE IN ITALY

Quarter/Year with traceability code







A11



## **GASTRUCK EN 1762 D-M**

### According to EN 1762

Liquid gas application (methane, propane, LPG) loading of tankers. According to EN 1762 (hoses and hose assemblies for LPG and natural gas).

#### Hose Construction

**Tube:** Low diffusion rate NBR rubber

compound of uniform thickness

Reinforcement: Synthetic textile fabrics, embedded

built-in copper wire to facilitate the electrical connection between the

hose and the end couplings

Cover: Black, smooth, antistatic

 $(R < 1 \text{ M}\Omega/\text{m})$ , abrasion, oil, fuel and weather resistant NBR/SBR rubber compound. Pin-pricked to prevent

the formation of blisters

### Temperature Range

-30 °C (-22 °F) to +70 °C (+158 °F)



- Electrical continuity guaranteed by copper wires if correctly assembled
- Low permeability
- Pin-pricked cover
- Burst Pressure Value 4:1

### Tolerances

On inside diameter

 $\leq$  I.D. 38 mm  $\pm$  0.50 mm > I.D. 38 mm  $\pm$  0.60 mm

On outside diameter

≤ O.D. 52 mm ± 1.00 mm > O.D. 52 mm ± 1.20 mm Length tolerance ± 1 %

Part Number			Working Pressure			Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH30515071/40	13	23	2.5	362.5	25	0.40	80	N
IH30515072/40	16	26	2.5	362.5	25	0.47	100	Ν
IH36520580/40	19	31	2.5	362.5	25	0.61	160	Υ
IH36520581/40	25	38	2.5	362.5	25	0.83	200	Υ
IH36520582/40	32	45	2.5	362.5	25	1.00	250	Υ
IH36520583/40	38	52	2.5	362.5	25	1.27	320	Υ
IH36520584/40	50	66	2.5	362.5	25	1.84	400	Υ



## **ROBUR GPL**

Liquid gas applications (methane, propane, LPG) in the loading and unloading of tankers and in the service stations.

#### Hose Construction

Tube: Low diffusion rate seamless

extruded NBR rubber compound

of uniform thickness.

Reinforcement: Two braids of high tensile steel wire

Cover: Black, SBR/CR rubber compound

pin-pricked to prevent the formation of blisters, resistant to abrasion,

oils, ozone and weathering

### Temperature Range

-30 °C (-22 °F) to +70 °C (+158 °F)



- Suitable for vacuum application
- Low permeability
- Pin-pricked cover
- Burst Pressure Value 10:1

### **Tolerances**

Length tolerance ±1%

Part Number	Nominal Diameter			Ş w	orking Pre	essure	Weight	min. Bend Radius	in Stock
	(mm)	(inch)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH36520560/0	6.5	1/4	16.6	2.5	362.5	25	0.43	60	N
IH36520561/0	8	5/16	17.7	2.5	362.5	25	0.45	70	Ν
IH36520562/0	9.5	3/8	20.2	2.5	362.5	25	0.56	80	Ν
IH36520563/0	13	1/2	23.2	2.5	362.5	25	0.68	90	Υ
IH36520564/0	16	5/8	26.5	2.5	362.5	25	0.80	95	Υ
IH36520565/0	19	3/4	30.5	2.5	362.5	25	1.03	100	Υ
IH36520566/0	25	1	38.5	2.5	362.5	25	1.41	150	Υ
IH36520567/0	32	1 1/4	45.6	2.5	362.5	25	1.82	200	Υ
IH36520568/0	38	1 ½	52	2.5	362.5	25	2.00	280	Υ
IH36520569/0	51	2	66.5	2.5	362.5	25	2.86	350	Υ







## **JETCORD B ISO 1825**

### According to EN ISO 1825 type B

Designed for the ground refuelling of aircraft.

#### Hose Construction

Tube: Black, smooth, NBR rubber com-

pound, resistant to aviation gasoline and jet fuels having an aromatic content not exceeding 50 %

**Reinforcement:** Synthetic textile fabrics, with built-in

copper wire to ensure the electrical

continuity

Cover: Black, CR rubber compound,

resistant to mineral oil, fuels, abrasion, ozone and weathering

### Temperature Range

-40 °C (-40 °F) to +70 °C (+158 °F)



- Customized length and assembly with safety clamps
- Suggested brass fitting to prevent sparks
- Supplied with test report
- Burst Pressure Value 4:1

### Tolerances

According to EN ISO 1825
Refer to Technical Handbook on page TH34

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36522850/0	25	39	2.0	300.0	20	0.93	150	N
IH36522851/0	32	46	2.0	300.0	20	1.12	187	Ν
IH36522852/0	38	52	2.0	300.0	20	1.31	225	Ν
IH36522853/0	50	67	2.0	300.0	20	2.04	275	Ν
IH36522854/0	63.5	80	2.0	300.0	20	2.5	300	Ν
IH36522856/0	75	92	2.0	300.0	20	2.9	300	Ν
IH36522855/0	100	122	2.0	300.0	20	5.02	450	Ν



## **JETCORD C ISO 1825**

### According to EN ISO 1825 type C

Designed for the ground refuelling of aircraft non-electrically bonded, but incorporating an antistatic cover compound.

#### Hose Construction

Tube: Black, smooth, NBR rubber com-

pound, resistant to aviation gasoline and jet fuels having an aromatic content not exceeding 50 %

Reinforcement: Synthetic textile fabrics

**Cover:** Black, antistatic (R> $10^3$ < $10^6 \Omega$ /m),

CR rubber compound, resistant to mineral oil, fuels, abrasion, ozone

and weathering

#### Temperature Range

-40 °C (-40 °F) to +70 °C (+158 °F)



- Customized length and assembly with safety clamps
- Suggested brass fitting to prevent sparks
- Supplied with test report
- Burst Pressure Value 4:1

### Tolerances

According to EN ISO 1825

Refer to Technical Handbook on page TH34

Part Number			Working Pressure			Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH36522897/0	25	39	2.0	300.0	20	0.90	150	Ν
IH36522898/0	32	46	2.0	300.0	20	1.10	187	Ν
IH36522899/0	38	52	2.0	300.0	20	1.28	225	Ν
IH36522900/0	50	67	2.0	300.0	20	2.01	275	Ν
IH36522901/0	63.5	80	2.0	300.0	20	2.47	300	Ν
IH36522902/0	75	92	2.0	300.0	20	2.87	300	Ν
IH36522903/0	100	122	2.0	300.0	20	5.00	450	N





3ER HOSE JETCORD ISO1825;2010 type C/O = 1.D. mm = W.P. 20 bar = Quarter/Year = MADE IN ITALY

## **JETCORD E ISO 1825**

### According to EN ISO 1825 type E

Designed for use in all operations associated with the ground refuelling and fuel discharging of aircraft with enhanced defuelling capability, electrically conducting and incorporating a wire helix reinforcement.

#### Hose Construction

Tube: Black, smooth, NBR rubber com-

pound, resistant to aviation gasoline and jet fuels having an aromatic content not exceeding 50 %

Reinforcement: Synthetic textile fabrics and

embedded wire helix

Cover: Black, CR rubber compound,

resistant to mineral oil, fuels, abrasion, ozone and weathering

### Temperature Range

-40 °C (-40 °F) to +70 °C (+158 °F)



- Customized length and assembly with safety clamps
- Suggested brass fitting to prevent sparks
- Supplied with test report
- Burst Pressure Value 4:1
- Vacuum 0.85 bar

### Tolerances

According to EN ISO 1825

Part Number			Working Pressure			Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36522940/0	25	40	2.0	300.0	20	1.15	150	Ν
IH36522941/0	32	46	2.0	300.0	20	1.31	187	Ν
IH36522942/0	38	54	2.0	300.0	20	1.76	225	Ν
IH36522943/0	50	67	2.0	300.0	20	2.36	275	Ν
IH36522945/0	63.5	82	2.0	300.0	20	3.29	300	Ν
IH36522944/0	75	94	2.0	300.0	20	3.83	300	Ν
IH36522946/0	100	122	2.0	300.0	20	5.96	450	N





## **JETCORD F ISO 1825**

### According to EN ISO 1825 type F

Designed for use in all operations associated with the ground refuelling and fuel discharging of aircraft with enhanced defuelling capability, non-electrically conducting and incorporating a non-metallic helix reinforcement with an antistatic cover compound.

#### Hose Construction

Tube: Black, smooth, NBR rubber com-

pound, resistant to aviation gasoline and jet fuels having an aromatic content not exceeding 50 %

Reinforcement: Synthetic textile fabrics and

embedded nylon helix

Cover: Black, antistatic (R> $10^3$ < $10^6 \Omega/m$ ),

CR rubber compound, resistant to mineral oil, fuels, abrasion, ozone

and weathering

### Temperature Range

-40 °C (-40 °F) to +70 °C (+158 °F)



- Customized length and assembly with safety clamps
- Suggested brass fitting to prevent sparks
- Supplied with test report
- Burst Pressure Value 4:1
- Vacuum 0.65 bar

#### Tolerances

According to EN ISO 1825

Part Number			Working Pressure			Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH36522926/0	25	41	2.0	300.0	20	1.26	150	N
IH36522927/0	32	52	2.0	300.0	20	1.67	187	Ν
IH36522928/0	38	58	2.0	300.0	20	1.90	225	Ν
IH36522929/0	50	70	2.0	300.0	20	2.45	275	Ν
IH36522930/0	63.5	83.5	2.0	300.0	20	3.03	300	Ν
IH36522931/0	75	98	2.0	300.0	20	3.98	300	Ν
IH36522932/0	100	127	2.0	300.0	20	6.07	450	N



## **JETCORD XT/C**

### According to API 1529

Designed for use in all operations associated with the ground refuelling of aircraft non-electrically bonded, but incorporating an antistatic cover compound.

#### Hose Construction

Tube: Black, smooth, NBR rubber com-

pound, resistant to aviation fuels having an aromatic content not

exceeding 50 %

Reinforcement: Synthetic textile fabrics

Cover: Black, antistatic (R> $10^3$ < $10^6 \Omega$ /m),

CR rubber compound, resistant to mineral oil, fuels, abrasion, ozone

and weathering

### Temperature Range

-40 °C (-40 °F) to +70 °C (+158 °F)



- Customized length and assembly with safety clamps
- Suggested brass fitting to prevent sparks
- Supplied with test report
- Burst Pressure Value 4:1

### Tolerances

According to API 1529

Part Number			Working Pressure			Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36522802/0	25	38.5	2.0	300.0	20	0.90	125	N
IH36522801/0	32	45.5	2.0	300.0	20	1.09	160	Ν
IH36522803/0	38	51.5	2.0	300.0	20	1.28	190	Ν
IH36522434/0	50	67	2.0	300.0	20	2.02	250	Ν
IH36522435/0	63.5	80	2.0	300.0	20	2.48	310	Ν
IH36522804/0	75	92	2.0	300.0	20	2.88	375	Ν
IH36522800/0	100	122	2.0	300.0	20	5.01	500	Ν







aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding





# Automotive & Boat







# **B - Automotive & Boat**

Hose	ID Range (mm)	Temp. Range (°C)	Application
RADIOR 10	7 - 15	-30 / +100	cooling line system
E-Z FROM GS	10 - 50	-40 / +125	high flexible hose for coolant line system
RADIOR DIN 6	10 - 110	-40 / +125	cooling line system
AIRBRAKE DIN 74310	7 - 15	-40 / +70	breaking system
AIRBRAKE SAE J 1402-A	9.5 - 15.9	-40 / +93	breaking system
CARBOPRESS SAE J 30 R7 N/L	4 - 12.7	-40 / +125	car & motorbike fuel system
TBSE	4 - 10	-30 / +100	car & motorbike fuel system
TBE	3 - 7.5	-20 / +90	car & motorbike fuel system
AUTOGAS ECE 67/110 Class2	4 - 19	-25 / +120	LPG/ CNG engines
CARBOBLUE N/L 10	16 - 25	-40 / +100	nox reducing system
CARBOBLUE N/L 20	4 - 25	-40 / +100	nox reducing system
CARBOPRESS EN ISO 7840 A1	5 - 25	-20 / +100	boat fuel system
CARBOCORD EN ISO 7840 A1	38 - 50	-20 / +100	boat fuel system
CARBURITE EN ISO 7840 A1	19 - 60	-20 / +100	boat fuel system
SM/TR 311	19 - 150	-20 / +100	coolant line



Tube	Reinforce- ment	Cover	WP (bar)	Safety factor	Suction	Industry standard	Page
EPDM	textile	EPDM	10	3			B4
EPDM	textile	EPDM	5	4	yes	SAE J 20R2 - D1	B5
EPDM	textile	EPDM	6	3			B6 - B7
EPDM	textile	EPDM	10	4		DIN 74310	B8
NBR/SBR	textile	CR	15	4		SAE J 1402-A	В9
NBR	textile	CR	10	4		SAE 30 R7	B10
NBR	textile	NBR/EPDM	10	3			B11
NBR	textile		10	3			B12
NBR	textile	CSM	4.5	4		ECE 67/110	B13
EPDM	textile	EPDM	10	3			B14
EPDM	textile	EPDM	20	3			B14
NBR	textile	NBR/SBR	3.4	8		EN ISO 7840 A1	B15
NBR	textile	NBR/SBR	2.5	8		EN ISO 7840 A1	B15
NBR	textile	NBR/SBR	2.5	8	yes	EN ISO 7840 A1	B16
NBR	textile	NBR/SBR	3	6.5	yes	EN ISO 7840 A1	B17



## **RADIOR 10**

Flexible rubber hose for delivery of hot water in heating and cooling of automotive LPG and methane systems.

#### Hose Construction

Tube: Black, smooth EPDM nitrosamine

free rubber compound

Reinforcement: Synthetic textile yarns

Cover: Smooth, black, heat, ageing and

> weather-resistant EPDM nitrosamine free rubber compound

### Temperature Range

-30 °C (-22 °F) to + 100 °C (+212 °F) with peaks +120 °C (+248 °F)



- Specific for cooling system
- Also used in combination with Autogas ECE 67/110 in CNG/LPG engines
- Robust structure to avoid kinking
- Burst Pressure Value 3:1

#### Tolerances

According to UNI EN ISO 1307 Refer to Technical Handbook on page TH34

Part Number			Working Pressure			Weight	min. Bend Radius	in Stock
	I.D. (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH30114029/100	7	13	1.0	150.0	10	0.13	50	N
IH30114030/50	15	23	1.0	150.0	10	0.35	90	Υ
IH30114030/100	15	23	1.0	150.0	10	0.35	90	Υ



## E-Z FORM GS

Designed to handle air, coolant, mild chemicals and water. Extremely flexible, lightweight provides full suction capability and a path to conduct a static electrical charge to ground. The unique Greek cover corrugations provides minimal force-to-bend, superior kink resistance, and maximum flexibility for ease of handling, used where formed hose might normally be required.

#### Hose Construction

**Tube:** Black EPDM, antistatic rubber

compound

**Reinforcement:** Multiple textile plies with wire helix **Cover:** Black EPDM rubber compound

resistant to weathering, greek

corrugated finish

#### Temperature Range

-40 °C (-40 °F) to +125 °C (+257 °F)



- Saves time and costs thanks to easy and quick assembly
- Superior kink resistance, minimal force to bend, outstanding flexibility
- Performance equal to SAE J20R2-D1
- Burst Pressure Value 4:1
- Vacuum: 0.9 bar

#### **Tolerances**

According to UNI EN ISO 1307
Refer to Technical Handbook on page TH34

Part Number			Working Pressure			Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH73950500/10	13	23	0.5	75.0	5	0.33	35	Υ
IH73950594/10	15	25	0.5	75.0	5	0.36	45	Υ
IH73950625/10	16	26	0.5	75.0	5	0.39	45	Ν
IH73950750/10	19	29	0.5	75.0	5	0.46	50	Υ
IH73951000/10	25	35	0.5	75.0	5	0.56	50	Υ
IH73951125/10	29	38	0.5	75.0	5	0.62	65	Υ
IH73951250/10	32	43	0.5	75.0	5	0.75	80	Υ
IH73951375/10	35	46	0.5	75.0	5	0.79	95	Υ
IH73951500/10	38	49	0.5	75.0	5	0.85	100	Υ
IH73952000/10	51	63	0.5	75.0	5	1.44	150	Υ
IH73952250/10	57	70	0.5	75.0	5	1.61	200	Υ
IH73952375/10	60	73	0.5	75.0	5	1.64	210	Υ
IH73952500/10	63.5	76.5	0.5	75.0	5	1.74	220	Υ
IH73953000/10	76	90	0.5	75.0	5	2.23	270	Υ
IH73954000/10	102	116	0.5	75.0	5	3.28	400	Υ







## **RADIOR DIN 6 (COILS)**

Designed for cooling systems of automotive engines and stationary engines and for refrigerant systems.

#### Hose Construction

Tube: Black, smooth, heat resistant

EPDM rubber compound

according to DIN 73411 - 1996\*

**Reinforcement:** Synthetic textile fabrics yarns Cover: Black, smooth, wrapped finish,

heat, ageing and weather-resistant

EPDM rubber compound

according to DIN 73411 - 1996\*

### Temperature Range

-40 °C (-40 °F) to +125 °C (+257 °F) with peaks to +140 °C (+284 °F)



- Compounds according to DIN 73411 for: tensile, strength, density, hardness, laceration, swellings, aging and dry residue
- Specific for cooling system at high temperature
- For Automotive and general industries application
- Burst Pressure Value 3:1

#### Tolerances

I.D. ≤ 25 mm

according to UNI EN ISO 1307

I.D. > 25 mm

according to RMA steel mandrel Refer to Technical Handbook on page TH34

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH30836101/40	10	17	0.6	90.0	6.0	0.17	-	Υ
IH30836103/40	13	20	0.6	90.0	6.0	0.21	-	Υ
IH30836104/40	15	22	0.6	90.0	6.0	0.23	_	Υ
IH30836105/40	16	23	0.6	90.0	6.0	0.25	-	Υ
IH30836106/40	18	25	0.6	90.0	6.0	0.27	_	Υ
IH30836107/40	20	27	0.6	90.0	6.0	0.30	-	Υ
IH30836108/40	22	29	0.6	90.0	6.0	0.33	_	Υ
IH30836109/40	25	34	0.6	90.0	6.0	0.48	-	Υ
IH36836110/40	28	36	0.6	90.0	6.0	0.52	_	Υ
IH36836111/40	30	38	0.6	90.0	6.0	0.55	-	Υ
IH36836112/40	32	40	0.6	90.0	6.0	0.58	_	Υ
IH36836113/40	35	43	0.6	90.0	6.0	0.63	-	Υ
IH36836114/40	38	48	0.6	90.0	6.0	0.88	_	Υ
IH36836115/40	40	50	0.6	90.0	6.0	0.92	-	Υ
IH36836116/40	42	52	0.6	90.0	6.0	0.96	_	Ν
IH36836117/40	45	55	0.6	90.0	6.0	1.02	-	N
IH36836119/40	50	60	0.6	90.0	6.0	1.11	_	Υ



Catalogue 4401/UK

<sup>\*</sup>The tube and the cover compounds are according to DIN 73411 - 1996 in the following principal areas: tensile, strength, density, hardness, laceration, swellings, aging and dry residue.



## **RADIOR DIN 6 (CUT LENGTH)**

Designed for cooling systems of automotive engines and stationary engines and for refrigerant systems.

#### Hose Construction

Tube: Black, smooth, heat resistant

EPDM rubber compound

according to DIN 73411 - 1996\*

**Reinforcement:** Synthetic textile fabrics yarns Cover: Black, smooth, wrapped finish,

heat, ageing and weather-resistant

EPDM rubber compound

according to DIN 73411 - 1996\*

#### Temperature Range

-40 °C (-40 °F) to +125 °C (+257 °F) with peaks to +140 °C (+284 °F)



- Compounds according to DIN 73411 for: tensile, strength, density, hardness, laceration, swellings, aging and dry residue
- Specific for cooling system at high temperature
- For Automotive and general industries application
- Burst Pressure Value 3:1

#### Tolerances

I.D. ≤ 25 mm

according to UNI EN ISO 1307

I.D. > 25 mm

according to RMA steel mandrel Refer to Technical Handbook on page TH34

Part Number		S w	orking Pres	sure	Weight	min. Bend Radius	in Stock	
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH30836108/1	22	29	0.6	90.0	6.0	0.33	-	N
IH30836109/1	25	34	0.6	90.0	6.0	0.48	-	Ν
IH36836111/1	30	38	0.6	90.0	6.0	0.55	_	N
IH36836112/1	32	40	0.6	90.0	6.0	0.58	-	N
IH36836114/1	38	48	0.6	90.0	6.0	0.88	_	N

<sup>\*</sup>The tube and the cover compounds are according to DIN 73411 - 1996 in the following principal areas: tensile, strength, density, hardness, laceration, swellings, aging and dry residue.

## **AIRBRAKE DIN 74310**

### According to DIN 74310

Widely used in automotive air brake systems.

Hose Construction

**Tube:** Black, smooth EPDM nitrosamine

free rubber compound

Reinforcement: Stress-resistant, synthetic textile

yarns

Cover: Black, abrasion, ageing and weath-

er-resistant, smooth EPDM nitrosa-

mine free rubber compound

Temperature Range

-40 °C (-40 °F) to + 70 °C (+158 °F)



- Recommended DIN 74304 and DIN 74325 fittings and DIN 3017 clamps
- Automotive application
- Nitrosamine free compounds
- Burst Pressure Value 4:1



### Tolerances

According to DIN 74310
Refer to Technical Handbook on page TH34

Part Number		S w	orking Pres	sure	Weight	min. Bend Radius	in Stock	
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH30315105/40	7	14	1.0	150.0	10	0.16	55	N
IH30315103/40	9	16	1.0	150.0	10	0.19	65	N
IH30315116/40	11	18	1.0	150.0	10	0.22	70	Υ
IH30315115/40	13	25	1.0	150.0	10	0.49	100	Υ
IH30315102/80*	15	25	1.0	150.0	10	0.44	115	Ν

<sup>\*</sup>Not complying the norm





## **AIRBRAKE SAE J 1402-A**

### According to SAE J 1402-A

Widely used in automotive air brake systems.

Hose Construction

Tube: Black, smooth, NBR/SBR rubber

compound

Reinforcement: Synthetic textile yarns

Cover: Black, smooth, abrasion, ageing

and weather-resistant CR rubber

compound

Temperature Range

-40 °C (-40 °F) to + 93 °C (+200 °F)



- Tighter tolerances on ID and OD
- Automotive application
- Superior cover compound resistant to abrasion and weathering
- Burst Pressure Value 4:1

#### **Tolerances**

According to SAE J1402 – TABLE A Refer to Technical Handbook on page TH34

Part Number	Nominal Diameter			Working Pressure			Weight	min. Bend Radius	in Stock
	(mm)	(inch)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH30315117/40	9.5	3/8	19	1.5	217.0	15	0.30	89	Υ
IH30315119/40	12.7	1/2	22.2	1.5	217.0	15	0.37	102	Υ
IH30315122/40	14.5	-	24.5	1.5	217.0	15	0.43	131	Ν
IH30315121/40	15.9	5/8	27	1.5	217.0	15	0.53	114	N





## **AUTOGAS ECE 67/110 CLASS 2**

According to ECE 67 and 110 Class 2

Low pressure hoses, designed according to regulation ECE 67, 01, Annex 8, Class 2 and ECE 110, 02, Annex 4b, Class 2.

Suitable for low pressure delivery of LPG and methane CNG alternative fuel kits.

#### Hose Construction

**Tube:** Black, smooth, insulating

 $(R > 1 M\Omega/m)$ , LPG and methane permeation resistant NBR rubber

compound

**Reinforcement:** Synthetic textile yarns **Cover:** Black, smooth, insulating

 $(R > 1 M\Omega/m)$ , CSM rubber

compound resistant to ageing, heat, abrasion, ozone and weathering

### Temperature Range

-25 °C (-13 °F) to +120 °C (+ 248 °F)



- Insulating cover and tube compounds
- Exceeds DIN 4815 Teil 4
- Available pre-formed on request
- Very low permeation values closed to zero
- Burst Pressure Value 4:1

### Tolerances

According to UNI EN ISO 1307
Refer to Technical Handbook on page TH34

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	I.D. (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH30510060/50	4	10	0.45	65.0	4.5	0.09	35	Υ
IH30510027/50	5	10.5	0.45	65.0	4.5	0.09	40	Υ
IH30510062/50	6	13	0.45	65.0	4.5	0.14	50	Υ
IH30510064/50	10	17	0.45	65.0	4.5	0.20	80	Υ
IH30510065/50	12	19	0.45	65.0	4.5	0.23	100	Υ
IH30510066/50	14	22	0.45	65.0	4.5	0.30	115	Υ
IH30510067/50	16.5	24.5	0.45	65.0	4.5	0.34	135	Υ
IH30510069/50	19	27	0.45	65.0	4.5	0.39	150	Υ





## **CARBOPRESS SAE J 30 R7**

### According to SAE J 30 R7

Low permeability, fire resistant hose, for lead and unleaded fuels in car and motorbike engines and gearbox lubricants where high performance and compliance to standards are important issue. Hose meets the American Standard SAE J30 R7.

#### Hose Construction

Tube: Black, smooth, antistatic

> $(R < 1 M\Omega/m)$  NBR rubber compound, resistant to oils, fuels and unleaded petrol with aromatic content not exceeding 50 %

Reinforcement: Synthetic textile yarns

Cover: Black, smooth, antistatic

> $(R < 1 M\Omega/m) CR rubber$ compound resistant to oils, abrasion, weather and fire

### Temperature Range

-40 °C (-40 °F) to +125 °C (+257 °F)



- Exceeds SAE J 30 R7 in WP
- Antistatic cover and tube compounds
- Suitable for B100 up to 70 °C
- Superior cover compound resistant to abrasion and weathering
- Burst Pressure Value 4:1

### Tolerances

According to SAE J30 R7

Refer to Technical Handbook on page TH34

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH30872400/100	4	9.1	1.0	150.0	10	0.07	30	Ν
IH30872401/100	4.8	10.3	1.0	150.0	10	0.09	40	Ν
IH30872402/100	6.4	12.7	1.0	150.0	10	0.13	55	Υ
IH30872403/100	8	14.3	1.0	150.0	10	0.16	65	Υ
IH30872404/100	9.5	15.9	1.0	150.0	10	0.18	75	Υ
IH30872405/100	12.7	19.9	1.0	150.0	10	0.25	100	Υ

RUBBER FUEL HOSE CARBOPRESS SAE 30 R7 MADE IN ITALY - Parker (repeated every 300 mm)



## **TBSE**

Desigend for general applications in fuel systems where low permeability levels are required. Suitable for leaded and unleaded fuels and diesel.

#### Hose Construction

**Tube:** Black, oil and fuel resistant, smooth,

antistatic (R < 1 M $\Omega$ /m), NBR

rubber compound

Reinforcement: Synthetic textile yarns

Cover: Black, oil, fuel, abrasion, weather-

resistant, smooth, antistatic

 $(R < 1 M\Omega/m)$ , NBR/EPDM rubber

compound

### Temperature Range

-30 °C (-22 °F) to +100 °C (+212 °F)



- Antistatic cover and tube compounds
- Low permeability
- Suitable for B20 and E100 up to 70 °C
- Available packaging in reels for display stand
- Burst Pressure Value 3:1

#### **Tolerances**

According to UNI EN ISO 1307
Refer to Technical Handbook on page TH34

Part Number	I.D. (mm)	O.D. (mm)	∰ w∈	orking Pres	sure bar	Weight kg/m	min. Bend Radius mm	in Stock
Coils	1.D. (IIIII)	<b>0.D.</b> (11111)	IVII a	poi	Dai	Kg/III		
IH30871001/100	4	9	1.0	150.0	10	0.07	30	Υ
IH30871011/100	5	10	1.0	150.0	10	0.08	40	Y
IH30871021/100	6	13	1.0	150.0	10	0.14	55	Υ
IH30871031/100	7	13	1.0	150.0	10	0.13	55	Υ
IH30871041/100	7.5	14	1.0	150.0	10	0.15	65	Υ
IH30871051/100	10	16	1.0	150.0	10	0.17	75	Υ
Reels								
IH30871001/15-R90*	4	9	1.0	150.0	10	0.07	30	Υ
IH30871011/15-R90*	5	10	1.0	150.0	10	0.08	40	Υ
IH30871021/15-R90*	6	13	1.0	150.0	10	0.14	55	Υ
IH30871031/15-R90*	7	13	1.0	150.0	10	0.13	55	Υ
IH30871041/15-R90*	7.5	14	1.0	150.0	10	0.15	65	Υ
IH30871051/10-R60**	10	16	1.0	150.0	10	0.17	75	Υ

<sup>\*</sup> box quantity = 6 x 15 m (reels)



<sup>\*\*</sup> box quantity = 6 x 10 m (reels)



## **TBE**

Designed for particular applications in fuel systems where textile cover is requested. Suitable for leaded and unleaded fuels and diesel.

#### Hose Construction

Tube: Black, oil and fuel resistant, smooth

NBR rubber compound

Reinforcement/

**Cover:** High tensile polyester textile over-

braid, resistant to abrasion, fuel, oil

and weathering

### Temperature Range

-20 °C (-4 °F) to +90 °C (+194 °F)



- Available in reels only
- Suitable for B20 and E100 up to 70 °C
- Designed for motorbike fuel supply
- Burst Pressure Value 3:1

#### **Tolerances**

On inside diameter: + 0 / - 0.5 mm

Length tolerance: ± 1 %

Part Number	S w	orking Pres	sure	Weight	min. Bend Radius	in Stock		
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH11001300/15-R90*	3	7	1.0	150.0	10	0.04	30	Υ
IH11001345/15-R90*	7.5	14.5	1.0	150.0	10	0.13	65	Υ





## **CARBOBLUE N/L 10 - 20**

#### Parker Global Product

Carboblue is specially designed for applications where there is a requirement for extracting NOx (nitrogen oxide and its mixtures that emit polluted substances into the environment during air combustion) and dramatically reducing exhaust gas from diesel engines. These objectives are included in European parameters EURO IV and EURO V.

### Hose Construction

Tube: Black, smooth, antistatic

> $(R < 1 M\Omega/m)$  and sulphur free EPDM rubber compound nitrosamine free with peroxide curing.

Extensive tests on tensile stress, cold bending, heat, and laceration resistance on compound in contact with the additive did not show alteration of its state. In addition, no contamination of the additive was present after 168 hours at the temperature of 70 °C.

**Reinforcement:** Synthetic textile fabrics Cover: Black, smooth, antistatic

> $(R < 1 M\Omega/m)$ , EPDM rubber compound nitrosamine free, ageing, heat and weather resistant



- Compatibility approved by Ad-Blue manufacturer
- Environmental friendly



- Nitrosamine free
- Available HW version to defrost and keep additive at the right temperature
- Burst Pressure Value 3:1

### Temperature Range

-40 °C (-40 °F) +100 °C (+212 °F) with peaks up to +120 °C (+248 °C)

#### **Tolerances**

According to UNI EN ISO 1307 Refer to Technical Handbook on page TH34

Part Number				orking Pres	sure	Weight	min. Bend Radius	in Stock			
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm				
CARBOBLUE N/L 10											
IH30515030/100	16	23	1.0	150.0	10	0.27	100	Ν			
IH30515031/80	19	27	1.0	150.0	10	0.37	115	Ν			
IH30515032/50	25	36	1.0	150.0	10	0.68	150	Ν			
CARBOBLUE N/L 20	CARBOBLUE N/L 20										
IH30515042/100	4	10	2.0	300.0	20	0.08	30	Ν			
IH30515043/100	6	12	2.0	300.0	20	0.11	40	Υ			
IH30515044/100	8	15	2.0	300.0	20	0.16	50	Ν			
IH30515045/100	10	17	2.0	300.0	20	0.19	60	Υ			
IH30515046/100	13	20	2.0	300.0	20	0.23	80	Υ			
IH30515040/80	16	26	2.0	300.0	20	0.43	100	Υ			
IH30515041/80	19	30	2.0	300.0	20	0.56	115	N			
IH30515047/50	25	37	2.0	300.0	20	0.76	150	N			



CARBOPRESS EN ISO 7840 A1 CARBOCORD EN ISO 7840 A1

According to EN ISO 7840 A1

Fire resistant fuel hose suitable for loading diesel, leaded and unleaded fuels with an aromatic content not exceeding 50 %, for small craft of - 24 m length of hull with permanently installed inboard engines. According to EN ISO 7840 type A1 permeability (4 g/m2 hour). Complies with the essential requirements given in the European Directive for small craft 94/25/EC.

#### Hose Construction

**Tube:** Black, smooth, antistatic

 $(R < 1 M\Omega/m)$ , oil and fuel resistant

NBR rubber compound

**Reinforcement:** Synthetic textile yarns **Cover:** Black, smooth, antistatic

 $(R < 1 M\Omega/m)$ , CR rubber compound resistant to abrasion, oil, fuel, weather and fire resistant

- Type approval by RINA and Lloyd's Register
- Suitable for small craft according to European Directive 94/25/EC
- Fire resistant fuel hose
- Burst Pressure Value 8:1

#### Tolerances

According to EN ISO 7840

Refer to Technical Handbook on page TH34

### Temperature Range

-20 °C (-4 °F) to +100 °C (+212 °F)

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock		
	I.D. (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm			
CARBOPRESS EN ISO 7840 A1										
IH30511049/100	5	15	0.34	49.3	3.4	0.22	30	Ν		
IH30511051/100	8	18	0.34	49.3	3.4	0.29	50	Ν		
IH30511057/100	10	20	0.34	49.3	3.4	0.32	60	Υ		
IH30511053/80	12.5	22	0.34	49.3	3.4	0.37	75	Ν		
IH30511054/80	16	26	0.34	49.3	3.4	0.47	100	Υ		
IH30511055/50	19	29	0.34	49.3	3.4	0.54	115	Υ		
IH30511058/50	25	35	0.34	49.3	3.4	0.67	150	Υ		
CARBOCORD EN ISO 7840 A1										
IH36521204/40*	38	50	0.25	36.25	2.5	1.10	380	Υ		
IH36521207/40*	50	62	0.25	36.25	2.5	1.40	500	N		

\*Mandrel Made production

RUBBER HOSE CARBOPRESS EN ISO 7840 A1 CE .... MADE IN ITALY —Parker Year with traceability code

RUBBER HOSE CARBOCORD EN ISO 7840 A1 CE .... Year MADE IN ITALY —Parker



## **CARBURITE EN ISO 7840 A1**

### According to EN ISO 7840 A1

Fire resistant fuel hose suitable for loading diesel, leaded and unleaded fuels with an aromatic content not exceeding 50 %, for small craft of - 24 m length of hull with permanently installed inboard engines. According to EN ISO 7840 type A1 permeability (4 g/m2 hour). Complies with the essential requirements given in the European Directive for small craft 94/25/EC.

#### Hose Construction

**Tube:** Black, smooth, antistatic

 $(R < 1 M\Omega/m)$ ,

oil and fuel resistant NBR rubber

compound

Reinforcement: Synthetic textile yarns and embed-

ded steel wire helix

**Cover:** Black, smooth, antistatic

 $(R < 1 M\Omega/m)$ ,

NBR/SBR rubber compound re-

sistant to abrasion, oil, fuel, weather and fire



- Type approval by RINA and Lloyd's Register
- Suitable for small craft according to European Directive 94/25/EC
- Fire resistant fuel hose
- Burst Pressure Value 8:1
- Vacuum 0.9 bar

### Temperature Range

-20 °C (-4 °F) to +100 °C (+212 °F)

#### **Tolerances**

According to EN ISO 7840

Part Number			w w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36531510/40	19	32	0.25	36.0	2.5	0.76	120	N
IH36531511/40	25	39	0.25	36.0	2.5	1.08	150	Ν
IH36531513/40	38	54	0.25	36.0	2.5	1.73	240	Ν
IH36530515/40	50	66	0.25	36.0	2.5	2.18	300	Ν



## **SM TR 311**

### According to EN ISO 7840 A1 and EN ISO 13363

Designed and approved for use in water cooling exhaust gas systems and also as fire resistant fuel hose for craft. Suitable for general loading and unloading oils and fuel service.

#### Hose Construction

**Tube:** Black, smooth, antistatic

 $(R < 1~M\Omega/m)$ , NBR rubber compound, resistant to exhaust gas, sea water, oil and fuel having an aromatic content not exceeding

50 %

Reinforcement: Synthetic textile fabrics and

embedded steel wire helix

Cover: Black, smooth, antistatic

 $(R < 1 M\Omega/m)$ , NBR/SBR rubber compound, resistant to flame, heat, oil and fuel, abrasion, ageing

and weathering

### Temperature Range

-20 °C (-4 °F) to +100 °C (+212 °F)



- Type approval by RINA and Lloyd's Register
- Designed for exhaust gas and refueling
- Suitable for craft according to European Directive 94/25/EC
- Fire resistant fuel hose
- Burst Pressure Value 6,5:1
- Vacuum 0.8 bar

#### Tolerances

On inside diameter

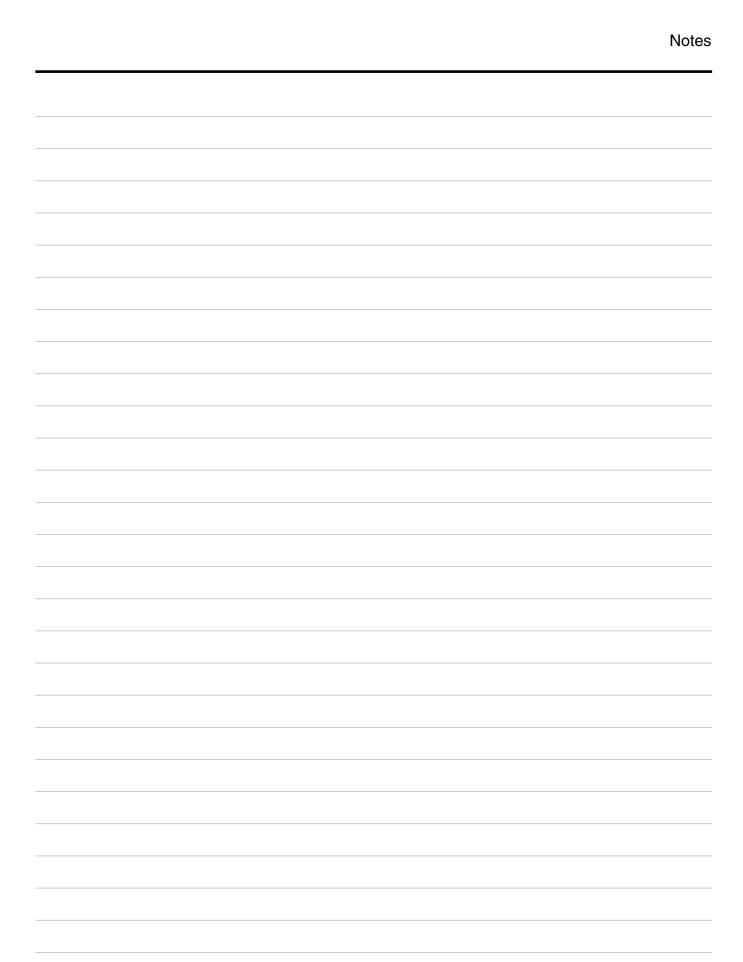
#### Note

Ondulated version on request

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	I.D. (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH36971005/40	19	29	0.3	43.5	3	0.63	120	Υ
IH36971006/40	25	35	0.3	43.5	3	0.77	150	Υ
IH36974109/40	32	42	0.3	43.5	3	0.94	190	Υ
IH36974107/40	38	48	0.3	43.5	3	1.09	230	Υ
IH36974111/40	45	55	0.3	43.5	3	1.26	270	Υ
IH36974112/40	50	60	0.3	43.5	3	1.41	300	Υ
IH36974114/40	63.5	73.5	0.3	43.5	3	1.85	380	Υ
IH36974115/20	76	86	0.3	43.5	3	2.29	455	Υ
IH36974116/20	90	100	0.3	43.5	3	2.67	540	Υ
IH36974117/20	102	113	0.3	43.5	3	3.24	610	Υ
IH36974119/20	125	139	0.3	43.5	3	5.02	750	N
IH36974121/15*	150	171	0.3	43.5	3	10.00	900	N

\*Comply only EN ISO 13363











aerospace
climate control
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pneumatics
process control
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Air







# C - Air

Hose	ID Range (mm)	Temp. Range (°C)	Application
MINIERA 10	25 - 102	-30 / +80	compressed air, non aggressive liquids
MINIERA 20	19 - 100	-30 / +80	compressed air, non aggressive liquids
MINIERA 40	13 - 51	-40 / +100	mine & quarries for long lasting service
AIRTEMP 220	51 - 80	-40 / +220	hot air for compressors and pneumatic s
MASKPRESS EN 14594 Class B N/L 100	9.5	-30 / +80	breathing system
DIVER 100 EN 250 N/L	6.3 - 8	-30 / +80	breathing system



	Tube	Reinforce- ment	Cover	<b>WP</b> (bar)	Safety factor	Suction	Industry standard	Page
	SBR	textile	SBR	10	3			C4
	SBR	textile	SBR	20	3			C5
	NBR	steel wire	SBR/CR	40	4			C6
sys.	EPR	textile	EPDM	10	3			C7
	NBR	textile	NBR	10	10		EN 14594 Class B	C8
	EPDM	textile	EPDM	35	4		EN250	C9



## MINIERA 10

Suitable for compressed air tools (with minimal oil traces) in factories and designed for quarries, building and mining industries.

#### Hose Construction

Tube: Black, oil mist resistant, smooth

SBR nitrosamine free rubber com-

pound

Reinforcement: Synthetic textile fabrics

Cover: Black, abrasion, ageing and

weather-resistant SBR nitrosamine

free rubber compound

### Temperature Range

-30 °C (-22 °F) to +80 °C (+176 °F)



- Also suitable for water and air in general service applications
- Nitrosamine free compounds
- Burst Pressure Value 3:1



#### **Tolerances**

According to RMA steel mandrel Refer to Technical Handbook on page TH34

Part Number			S we	orking Pres	sure	Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH36342181/40	25	35	1.0	150.0	10	0.70	250	Υ
IH36342182/40	30	40	1.0	150.0	10	0.81	300	Ν
IH36342184/40	35	45	1.0	150.0	10	0.92	350	Υ
IH36342185/40	40	50	1.0	150.0	10	1.02	400	Υ
IH36342186/40	45	55	1.0	150.0	10	1.14	450	Ν
IH36342187/40	50	60	1.0	150.0	10	1.25	500	Υ
IH36342188/40	60	70	1.0	150.0	10	1.47	600	Ν
IH36342189/20	70	80	1.0	150.0	10	1.68	700	Ν
IH36342190/40	75	86	1.0	150.0	10	1.99	750	Ν
IH36342190/20	75	86	1.0	150.0	10	1.99	750	Ν
IH36342191/20	100	112	1.0	150.0	10	2.86	1000	Ν
IH36342194/20	102	114	1.0	150.0	10	2.99	1020	N



## **MINIERA 20**

Suitable for compressed air tools in factories and designed for quarries, building and mining industries. Tube resistant to traces of oil mist for medium duty.

#### Hose Construction

Tube: Black, oil mist resistant, smooth

SBR/NBR rubber compound

Reinforcement: Synthetic textile fabrics

Cover: Black, abrasion, ageing and

weather-resistant SBR nitrosamine

free rubber compound

### Temperature Range

-30 °C (-22 °F) to +80 °C (+176 °F)



- Also suitable for water and air in general service applications
- Nitrosamine free compounds
- Burst Pressure Value 3:1



### Tolerances

According to RMA steel mandrel Refer to Technical Handbook on page TH34

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH36341113/40	19	30	2.0	300.0	20	0.62	190	Υ
IH36341110/40	25	37	2.0	300.0	20	0.81	250	Ν
IH36341149/40	30	42	2.0	300.0	20	0.98	300	Ν
IH36341111/40	32	46	2.0	300.0	20	1.24	320	Υ
IH36341121/40	38	52	2.0	300.0	20	1.43	380	Υ
IH36341120/40	40	56	2.0	300.0	20	1.73	400	Ν
IH36341109/40	45	61	2.0	300.0	20	1.91	450	Ν
IH36341114/40	50	66	2.0	300.0	20	2.08	500	Υ
IH36341116/40	60	76	2.0	300.0	20	2.38	600	Ν
IH36341117/20	75	91	2.0	300.0	20	2.89	750	Ν
IH36341119/20	100	118	2.0	300.0	20	4.23	1000	N





## **MINIERA 40**

Compressed air for mine and quarries, designed for long lasting service and maximum safety in heavy duty applications.

#### Hose Construction

Tube: Black, NBR rubber compound,

oil resistant

Reinforcement: One special braid of steel wire

Cover: Black SBR/CR rubber compound,

abrasion, oils, ozone and weather

resistant

### Temperature Range

-40 °C (-40 °F) to +100 °C (+212 °F)



- Heavy duty application
- Specific for compressed air tools in mining
- Low temperature resitance
- Burst Pressure Value 4:1

### Tolerances

According to BS 5118/34310
Refer to Technical Handbook on page TH34

Part Number	Nominal Diameter		Working Pressure		essure	Weight	min. Bend Radius	in Stock	
	(mm)	(inch)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH36348001/40	13	1/2	23	4.0	580.0	40	0.55	150	N
IH36348002/40	19	3/4	30	4.0	580.0	40	0.77	230	Ν
IH36348003/40	25	1	38	4.0	580.0	40	1.06	300	Ν
IH36348004/40	32	1 1/4	46	4.0	580.0	40	1.45	380	Ν
IH36348005/40	38	1 ½	52	4.0	580.0	40	1.80	455	Ν
IH36348000/40	51	2	66	4.0	580.0	40	2.30	600	Ν



Hot air delivery hose designed for compressors and pneumatic systems like flexible connection between motor blower and road tanker used for dry pellets, abrasive powders and granular material transport.

#### Hose Construction

Tube: Black, smooth, insulating, EPR

rubber compound with very good resistance to high temperature

Reinforcement: Synthetic textile fabrics yarns Black (N), smooth, insulating, Cover:

> wrapped finish EPDM rubber compound, resistant to heat, abrasion,

ozone and weather

### Temperature Range

-40 °C (-40 °F) to +220 °C (+435 °F) with peaks to +240 °C (+465 °F)

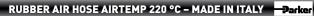


- Wide temperature range
- Insulating hose
- Could be complementary to **CERGOM**
- Burst Pressure Value 3:1

#### Tolerances

According to RMA steel mandrel Refer to Technical Handbook on page TH34

Part Number			Working Pressure			Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH36346010/40	51	69	1.0	150.0	10.0	1.85	350	N
IH36346011/40	60	78	1.0	150.0	10.0	2.13	420	Ν
IH36346012/20	65	83	1.0	150.0	10.0	2.40	455	Ν
IH36346013/20	75	93	1.0	150.0	10.0	2.62	550	Ν
IH36346014/20	80	98	1.0	150.0	10.0	2.65	600	Ν







## **MASKPRESS EN 14594 CLASS B**

According to EN 14594 Class B

Flexible hose designed for air supply in breathing devices for fire-fighting operations. Meets the requirements of UNI EN 14594 (points 6,12 - 6,13 relevant to hose without fittings).

### Hose Construction

Tube: Black, NBR rubber compound.

Heat, ageing and air resistant

Reinforcement: Synthetic textile yarns

Cover: Black, smooth NBR rubber com-

pound, resistant to abrasion, sea water, heat and weathering

### Temperature Range

-30 °C (-22 °F) to +80 °C (+176 °F)



- Tube compound vanilla flavor
- For assembly operation refer to the norm
- Suitable also for industrial safety
- Burst Pressure Value 10:1

#### Tolerances

According to UNI EN ISO 1307
Refer to Technical Handbook on page TH34

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH30310128/100	9.5	19	1.0	150.0	10	0.33	60	Υ







### According to EN 250

Flexible hose for air supply in scuba diving systems. Designed to exceed the UNI EN 250 standard requirements (point 5,7) flexible hoses for medium pressure, related to tests on loose hoses (not assembled). Hose certified.

### Hose Construction

**Tube:** Black, smooth, heat and ageing

resistant EPDM nitrosamine free

rubber compound

Reinforcement: Synthetic textile yarns

Cover: Black, smooth EPDM nitrosamine

free rubber compound, resistant to abrasion, sea water, heat and

weathering

### Temperature Range

-30 °C (-22 °F) to +80 °C (+176 °F)



- Tube compound vanilla flavor
- Nitrosamine free compounds



- For assembly operation refer to the norm
- Burst Pressure Value 4:1

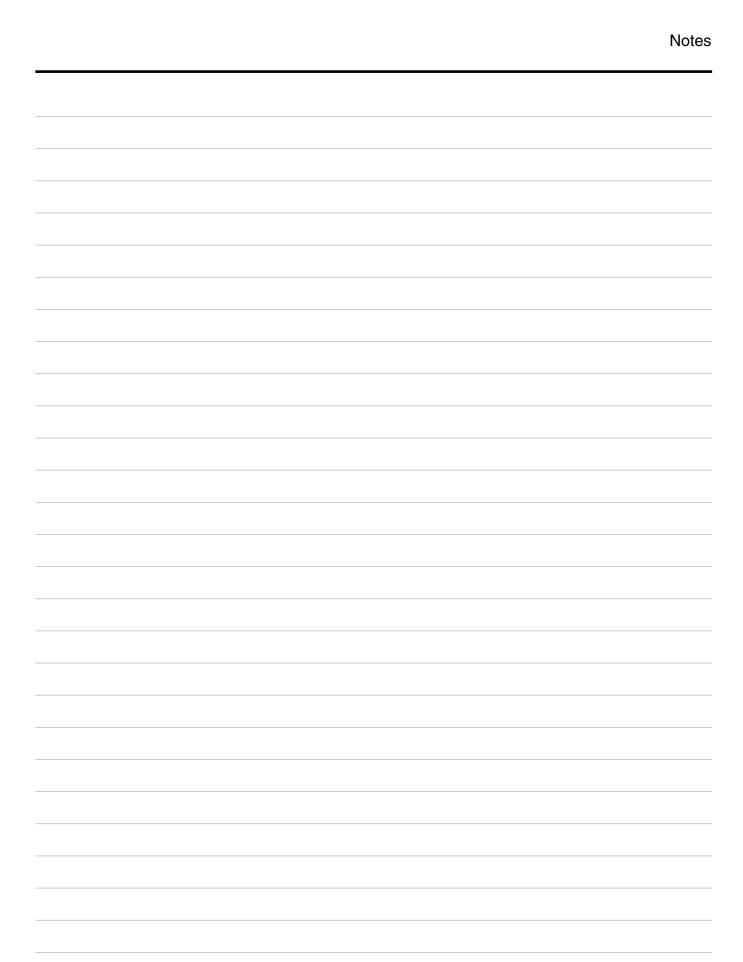
#### Tolerances

According to EN 250

Part Number			Working Pressure			Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH30310133/100	6.3	12.3	3.5	510.0	35	0.12	60	Ν
IH30310126/100	7.3	13.7	3.5	510.0	35	0.15	75	Ν
IH30310124/80	8	14	3.5	510.0	35	0.14	80	Ν

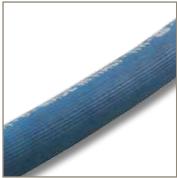






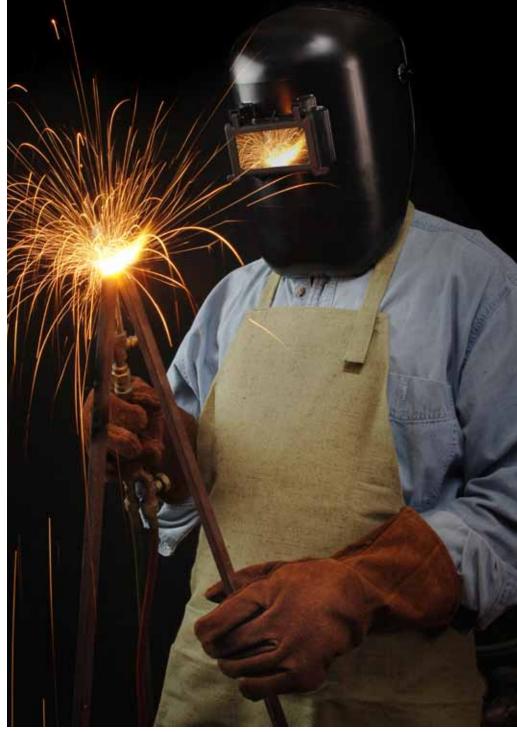






aerospace climate control electromechanical filtration fluid & gas handling hydraulics pneumatics process control sealing & shielding





Gas







# D - Gas

Hose	ID Range (mm)	Temp. Range (°C)	Application
AUTOGENE EN ISO 3821 NR/L - NB/L 20	6.3 - 10	-25 / +80	welding process
BIPRESS EN ISO 3821 B-R/L 20	6.3 - 10	-25 / +80	welding process
INERPRESS EN ISO 3821 N/L 20	6.3 - 10	-25 / +80	inert gas delivery
PROPANPRESS EN ISO 3821 N/L 20	6.3 - 10	-30 / +70	propan gas delivery
MULTIGASPRESS EN ISO 3821 NRA/L 20	6.3 - 16	-25 / +70	various gas delivery
CARBO G NW/L 10 - NB/R 10	8 - 13	-20 / +90	household applicances



Tube	Reinforce- ment	Cover	<b>WP</b> (bar)	Safety factor	Suction	Industry standard	Page
SBR	textile	SBR/EPDM	20	3		EN ISO 3821	D4
SBR	textile	SBR/EPDM	20	3		EN ISO 3821	D5
NBR	textile	SBR/EPDM	20	3		EN ISO 3821	D6
NBR	textile	NBR/PVC	20	3		EN ISO 3821	D7
NBR	textile	NBR/PVC	20	3		EN ISO 3821	D8
NBR	textile	SBR/EPDM	10	3		UNI CIG 7140	D9





### **AUTOGENE EN ISO 3821 NR/L - NB/L 20**

According to EN ISO 3821

Designed for delivery of welding and allied process gases.

#### Hose Construction

Tube: Black, smooth SBR rubber com-

pound, resistant to Welding Gases

and not suitable for LPG, good resistance to ignition

Reinforcement: Synthetic textile varns

Smooth (/L) or ribbed (/R), red (NR) Cover:

> or blue (NB), SBR/EPDM rubber compound resistant to abrasion, ageing, hot surfaces and incandes-

cent particles

#### Temperature Range

-25 °C (-13 °F) to +80 °C (+176 °F)



- For welding in industrial and domestic application
- Colored cover following specs indication: Red for Acetylene and Blue for Oxygen
- Exceeds the standard on backfire test
- Excellent flexibility
- Burst Pressure Value 3:1

#### Tolerances

According to EN ISO 3821

Refer to Technical Handbook on page TH34

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock	
	I.D. (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm		
AUTOGENE EN ISO 3821 NR/L 20									
IH30412803/40	6.3	13.3	2.0	300.0	20	0.15	40	Υ	
IH30412914/100	8	15	2.0	300.0	20	0.17	40	Υ	
IH30412716/40	9	16	2.0	300.0	20	0.19	45	Υ	
IH30412716/100	9	16	2.0	300.0	20	0.19	45	Υ	
IH30413221/40	10	17	2.0	300.0	20	0.20	50	Υ	
IH30413221/100	10	17	2.0	300.0	20	0.20	50	Υ	
AUTOGENE EN ISO 3	821 NB/L 20								
IH30412703/40	6.3	13.3	2.0	300.0	20	0.15	40	Υ	
IH30412706/40	6.3	16.3	2.0	300.0	20	0.25	40	Ν	
IH30412915/100	8	15	2.0	300.0	20	0.17	40	Υ	
IH30412707/40	9	16	2.0	300.0	20	0.19	45	Υ	
IH30413220/40	10	17	2.0	300.0	20	0.20	50	Υ	

Welding applications can be hazardous. Please take all the necessary safety precautions.

RUBBER HOSE – EN ISO 3821 – 2 MPa (20 bar) – I.D. MADE IN ITALY (Year with traceability code) —Parker

RUBBER HOSE – EN ISO 3821 – 2 MPa (20 bar) – I.D. MADE IN ITALY (Year with traceability code)







### **BIPRESS EN ISO 3821 B-R/L 20**

According to EN ISO 3821

A dual line hose designed for Welding Gas equipment, cutting and allied processes.

#### Hose Construction

Tube: Black, smooth SBR rubber com-

pound, resistant to Welding Gases

Reinforcement: Synthetic textile yarns

Cover: Red and blue, ageing and abrasion-

resistant, smooth SBR/EPDM rub-

ber compound

#### Temperature Range

-25 °C (-13 °F) to +80 °C (+176 °F)



- For welding in industrial and domestic application
- Colored cover following specs indication: Red for Acetylene
  - and Blue for Oxygen
- Exceeds the standard on backfire test
- Excellent flexibility
- Burst Pressure Value 3:1

#### **Tolerances**

According to EN ISO 3821

Refer to Technical Handbook on page TH34

Part Number			Working Pressure			Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH30401107/40	6.3+6.3	13	2.0	300.0	20	0.29	_	Υ
IH30401106/40	6.3+9	16	2.0	300.0	20	0.43	_	Υ
IH30401108/100	8+8	15	2.0	300.0	20	0.34	_	Υ
IH30401111/40	9+9	16	2.0	300.0	20	0.38	_	Υ
IH30401112/100	10+10	17	2.0	300.0	20	0.46	_	Ν

#### **IMPORTANT!**

Welding applications can be hazardous. Please take all the necessary safety precautions.

RUBBER HOSE – EN ISO 3821 – 2 MPa (20 bar) – I.D. MADE IN ITALY (Year with traceability code)

RUBBER HOSE – EN ISO 3821 – 2 MPa (20 bar) – I.D. MADE IN ITALY (Year with traceability code)





### **INERPRESS EN ISO 3821 N/L 20**

According to EN ISO 3821

Designed for delivery of inert gases.

Hose Construction

Tube: Black, smooth SBR rubber com-

pound, resistant to inert gases. Not

suitable for LPG

Reinforcement: Synthetic textile yarns

Cover: Smooth (/L), SBR/EPDM rubber

compound resistant to abrasion,

Temperature Range

-25 °C (-13 °F) to +80 °C (+176 °F)



- For handling inert and noble gas
- Black cover following specs indication
- Excellent flexibility
- Burst Pressure Value 3:1

#### **Tolerances**

According to EN ISO 3821

Refer to Technical Handbook on page TH34

Part Number			Working Pressure			Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH30412940/40	6.3	13.3	2.0	300.0	20	0.17	40	Υ
IH30413603/80	8	15	2.0	300.0	20	0.17	40	Υ
IH30412941/40	10	17	2.0	300.0	20	0.20	50	Υ





### PROPANPRESS EN ISO 3821 N/L 20

According to EN ISO 3821

Suitable for LPG in industrial applications.

Hose Construction

Tube: Black, LPG resistant smooth NBR

rubber compound

Reinforcement: Synthetic textile yarns

Cover: Orange, smooth PVC/NBR rubber

> compound resistant to ageing and weathering, pin-pricked cover to prevent blisters during use

Temperature Range

-30 °C (-22 °F) to +70 °C (+158 °F)



- Pin-pricked cover
- Low permeation
- Orange cover following specs indication
- Flexible hose for easy handling
- Burst Pressure Value 3:1

#### Tolerances

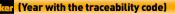
According to EN ISO 3821

Refer to Technical Handbook on page TH34

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH30413456/100	6.3	13.3	2.0	300.0	20	0.16	50	Υ
IH30413457/100	8	15	2.0	300.0	20	0.18	65	Υ
IH30413459/100	8.5	16	2.0	300.0	20	0.21	70	Υ
IH30413458/100	10	17	2.0	300.0	20	0.22	80	Υ

D7









## **MULTIGASPRESS EN ISO 3821 NRA/L 20**

According to EN ISO 3821

Suitable for all fuel gases included in the EN ISO 3821 Norm (except fluxed fuel gases) like: acetylene, LPG, MPS, natural gas, methane.

#### Hose Construction

Tube: Black, smooth NBR rubber com-

> pound suitable for all fuel gases included in the EN ISO 3821 Norm

except fluxed fuel gases

**Reinforcement:** Synthetic textile yarns

Red/orange, PVC/NBR, smooth Cover:

> rubber compound. Resistant to ageing, weathering, pin-pricked cover to prevent blisters during use

#### Temperature Range

-25 °C (-13 °F) to +70 °C (+158 °F)



- Pin-pricked cover
- Low permeation
- Dual colored cover following specs indication
- Flexible hose for easy handling
- Burst Pressure Value 3:1

#### Tolerances

According to EN ISO 3821

Refer to Technical Handbook on page TH34

Part Number			Working Pressure			Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH30412960/40	6.3	13.3	2.0	300.0	20	0.17	50	N
IH30412962/40	9	16	2.0	300.0	20	0.21	70	Ν
IH30412964/40	12.5	22.5	2.0	300.0	20	0.41	105	Ν
IH30412965/40	16	25	2.0	300.0	20	0.44	150	Ν



### **CARBO G NW/L 10 - NB/R 10**

#### According to UNI 7140

Connection of household appliances to the gas line (NW/L) or to LPG bottles (NB/R).

#### Hose Construction

Tube: Black, smooth NBR rubber com-

pound, suitable for Domestic Gas

Reinforcement: Synthetic textile yarns

Cover: White (NW) or blue (NB), ageing-

resistant, smooth (/L) or ribbed (/R) SBR/EPDM rubber compound

#### Temperature Range

-20 °C (-4 °F) to +90 °C (+194 °F)



- Quarterly tested by IMQ (Italian Institute of Quality Approval)
- Low permeability
- Superior tensile strength
- White smooth cover for indoor and blue ribbed cover for outdoor
- Burst Pressure Value 3:1

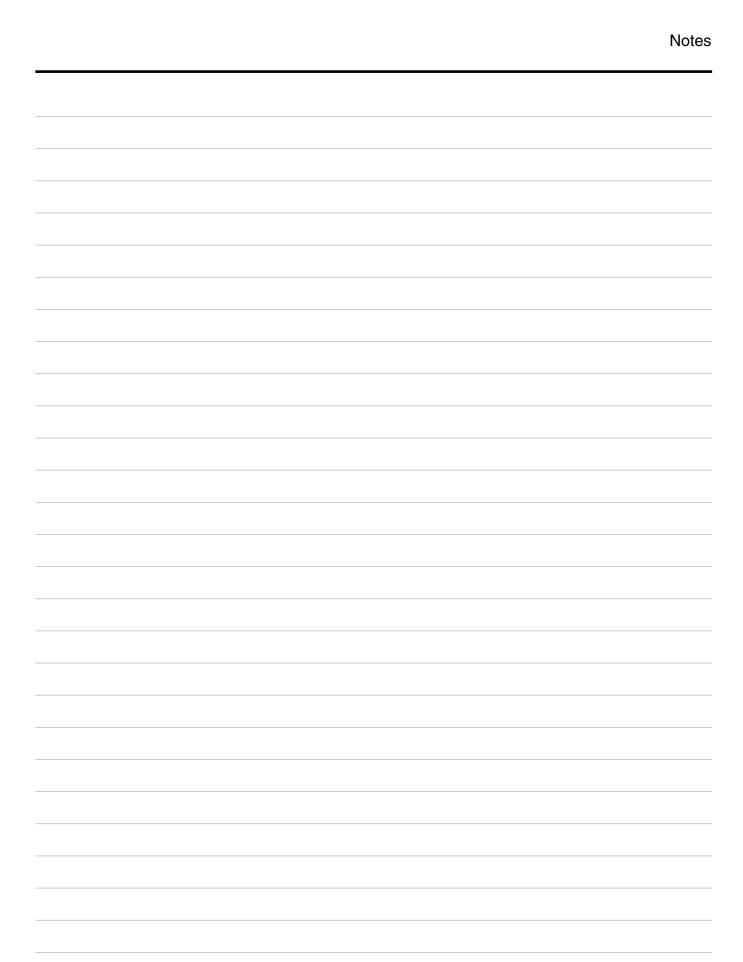
#### Tolerances

According to UNI 7140
Refer to Technical Handbook on page TH34

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
CARBO G NB/R 10								
IH30551594/100	8	13	1.0	150.0	10	0.13	33	Υ
CARBO G NW/L 10								
IH30551600/100	13	20	1.0	150.0	10	0.29	51	Υ











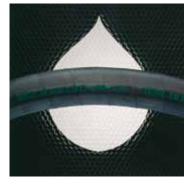


aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding





Water







# E - Water

Hose	ID Range (mm)	Temp. Range (°C)	Application
FUCINO 10	25 - 100	-30 / +80	water, non aggressive liquids
FUCINO 20	50 - 120	-30 / +80	water, non aggressive liquids
PRESSCORD N/R 10	8 - 25	-30 / +80	water, non aggressive liquids
IDRO 10	25 - 110	-30 / +80	water, non aggressive liquids
BEVERA 10	19 - 203	-30 / +80	water, non aggressive liquids
IR Irrigation PU Hose	51 - 150	-40 / +80	irrigation and water transfert
APEERFLAT MB	25 - 200	-15 / +60	water, non aggressive liquids
MULTIREX	19 - 150	-10 / +60	water, non aggressive liquids

E2



Tube	Reinforce- ment	Cover	WP (bar)	Safety factor	Suction	Industry standard	Page
SBR	textile	SBR	10	3			E4
SBR	textile	SBR	20	3			E4
SBR	textile	SBR/EPDM	10	3			<b>E</b> 5
SBR	textile	SBR	10	3			<b>E</b> 6
SBR	textile	SBR	10	3	yes		E7
PU	textile	PU	20	2			E8
PVC	textile	PVC	8	4			E9
PVC	PVC wire	PVC	7	3	yes		E10





### **FUCINO 10 - 20**

Suitable for a variety of industrial applications, where a flexible and lightweight discharge hose for water and non-aggressive liquids are required. Specifically designed for irrigation equipment and submersible pumps.

#### Hose Construction

Tube: Black, smooth SBR nitrosamine free

rubber compound

Reinforcement: Synthetic textile fabrics

Cover: Black, abrasion, ageing and

weather-resistant SBR nitrosamine

free rubber compound

#### Temperature Range

-30 °C (-22 °F) to +80 °C (+176 °F)



- Can be rolled flat for easy transport and storage
- Resistant to Ozone and weathering
- Available in two different pressure rates
- Nitrosamine free
- Burst Pressure Value 3:1

#### **Tolerances**

According to RMA steel mandrel Refer to Technical Handbook on page TH34

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
FUCINO 10	,						,	
IH36203251/40	25	31	1.0	150.0	10	0.38	-	Υ
IH36203253/40	32	38	1.0	150.0	10	0.47	_	Ν
IH36203240/40	38	45	1.0	150.0	10	0.65	_	Ν
IH36203255/40	40	47	1.0	150.0	10	0.68	_	Υ
IH36203256/40	45	52	1.0	150.0	10	0.75	_	Υ
IH36203257/40	50	57	1.0	150.0	10	0.83	_	Υ
IH36203258/40	60	67	1.0	150.0	10	0.99	-	Υ
IH36203263/20	100	108	1.0	150.0	10	1.78	_	Υ
FUCINO 20								
IH36203276/40	50	58	2.0	300.0	20	0.94	_	Υ
IH36203278/40	60	68	2.0	300.0	20	1.10	-	Υ
IH36203279/20	75	86	2.0	300.0	20	1.92	_	Ν
IH36203280/20	80	91	2.0	300.0	20	2.05	-	Υ
IH36203281/20	90	103	2.0	300.0	20	2.68	_	Ν
IH36203282/20	100	113	2.0	300.0	20	2.97	-	Υ
IH36203283/20	120	133	2.0	300.0	20	3.52	_	Υ





### PRESCORD N/R - 10

Suitable for discharge of water and nonaggressive liquids in many industrial and agricultural applications.

#### Hose Construction

Tube: Black, smooth SBR nitrosamine free

rubber compound

Reinforcement: Synthetic textile yarns

Cover: Black (N), ribbed (/R), abrasion,

ageing and weather-resistant, SBR/

EPDM nitrosamine free rubber compound

#### Temperature Range

-30 °C (-22 °F) to +80 °C (+176 °F)



- Resistant to Ozone and weathering
- Nitrosamine free
- Ribbed cover for better flexibility and grip
- Burst Pressure Value 3:1



#### Tolerances

According to UNI EN ISO 1307 Refer to Technical Handbook on page TH34

Part Number			Working Pressure			Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH30116062/100	8	15	1.0	150.0	10	0.19	50	Υ
IH30116063/100	10	17	1.0	150.0	10	0.22	60	Υ
IH30112103/100	12	19	1.0	150.0	10	0.26	70	Υ
IH30112139/100	15	21	1.0	150.0	10	0.25	90	Υ
IH30112136/50	18	26	1.0	150.0	10	0.42	110	Υ
IH30112138/50	20	30	1.0	150.0	10	0.59	120	Υ
IH30112134/50	25	35	1.0	150.0	10	0.71	150	Υ





### **IDRO 10**

Suitable for discharge of water and nonaggressive liquids, for agricultural uses, also in industrial facilities and on building sites.

#### Hose Construction

**Tube:** Black, smooth SBR nitrosamine free

rubber compound

Reinforcement: Synthetic textile fabrics

Cover: Black: abrasion, ageing and

weather-resistant SBR nitrosamine

free rubber compound

#### Temperature Range

-30 °C (-22 °F) to +80 °C (+176 °F)



- Robust construction
- Resistant to twisting
- Nitrosamine free
- Burst Pressure Value 3:1



According to RMA steel mandrel Refer to Technical Handbook on page TH34

Part Number				orking Pres	sure	Weight	min. Bend Radius	in Stock
	I.D. (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH36203000/40	25	34	1.0	150.0	10	0.63	250	Υ
IH36203002/40	30	41	1.0	150.0	10	0.92	300	Υ
IH36203003/40	32	44	1.0	150.0	10	1.07	320	Υ
IH36203004/40	35	48	1.0	150.0	10	1.26	350	Υ
IH36203005/40	38	52	1.0	150.0	10	1.46	380	Υ
IH36203006/40	40	54	1.0	150.0	10	1.52	400	Υ
IH36203008/40	45	61	1.0	150.0	10	2.00	450	Υ
IH36203010/40	50	68	1.0	150.0	10	2.49	500	Υ
IH36203011/40	60	82	1.0	150.0	10	3.63	600	Υ
IH36203103/20	75	91	1.0	150.0	10	2.95	750	Υ
IH36203105/20	90	104	1.0	150.0	10	3.10	900	Ν
IH36203017/20	100	125	1.0	150.0	10	6.33	1000	N
IH36203107/20	110	125	1.0	150.0	10	4.01	1100	Ν



### **BEVERA 10**

Suction and delivery of water and non-aggressive liquids. It is recommended for loading and discharge of storage tanks, tankers, for irrigation and for all applications where a flexible and easy to handle hose is required.

#### Hose Construction

Tube: Black, smooth SBR nitrosamine free

rubber compound

Reinforcement: Synthetic textile fabrics and

embedded steel wire helix

Cover: Black, abrasion, ageing and

weather-resistant SBR nitrosamine

free rubber compound

#### Temperature Range

-30 °C (-22° F) to +80 °C (+176 °F)



- Robust construction
- Resistant to twisting
- Nitrosamine free
- Vacuum 0.8 bar (600 mm Hg)
- Burst Pressure Value 3:1

#### Tolerances

According to RMA steel mandrel Refer to Technical Handbook on page TH34

Part Number			w w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH36214045/40	19	29	1.0	150.0	10	0.67	110	Υ
IH36214050/40	25	35	1.0	150.0	10	0.83	150	Υ
IH36214051/40	30	40	1.0	150.0	10	0.95	180	Υ
IH36214052/40	32	42	1.0	150.0	10	1.01	190	Υ
IH36214054/40	38	48	1.0	150.0	10	1.16	230	Υ
IH36214055/40	40	50	1.0	150.0	10	1.21	240	Υ
IH36214058/40	50	60	1.0	150.0	10	1.50	300	Υ
IH36214060/40	60	71	1.0	150.0	10	1.94	360	Υ
IH36214063/20	70	81.5	1.0	150.0	10	2.59	420	Ν
IH36214064/20	75	86.5	1.0	150.0	10	2.75	450	Υ
IH36214066/20	80	92.5	1.0	150.0	10	3.02	480	Υ
IH36214067/20	90	103.5	1.0	150.0	10	3.66	540	N
IH36214068/20	100	114	1.0	150.0	10	3.98	600	Υ
IH36214070/20	110	124	1.0	150.0	10	4.34	660	N
IH36214071/20	120	134	1.0	150.0	10	4.73	720	Ν
IH36211010/20	125	140	1.0	150.0	10	5.66	750	Υ
IH36211050/10	150	170	1.0	150.0	10	7.73	900	Ν
IH36211032/6	203	225	1.0	150.0	10	15.00	1210	N







### IR IRRIGATION PU HOSE

A standard duty irrigation hose for water discharge and transfer in agricultural applications.

Hose Construction
Polyurethane extruded through
one woven polyester ply of reinforcement

Temperature Range -40 °C (-40 °F) to +80 °C (+176 °F)



- Much easier to couple, install and remove than polyethylene pipe
- High performing polymer preserve from fluid contamination
- Excellent resistance to abrasion
- Burst Pressure Value 2:1

Part Number		lominal Diameter		S w	orking Pre	essure	Weight	min. Bend Radius	in Stock	
	(mm)	(inch)	Wall (mm)	MPa	psi	bar	kg/m	mm		
IR20X200MB	51	2	2.30	3.1	450.0	31	0.41	_	N	
IR25X200MB	63.5	2 ½	2.30	3.1	450.0	31	0.58	_	Ν	
IR30X200MB	76	3	3.30	2.4	350.0	24	0.75	_	Υ	
IR35X200MB	90	3 ½	3.30	1.7	250.0	17	0.97	_	Υ	
IR40X200MB	102	4	3.30	1.7	250.0	17	1.14	_	Υ	
IR45X200MB	114	4 ½	3.30	1.7	250.0	17	1.25	_	Υ	
IR50X200MB	127	5	3.30	1.7	250.0	17	1.42	_	Υ	
IR60X200MB	152	6	3.05	2.0	300.0	20	1.72	_	Υ	









### **APERFLAT MB**

Medium-duty, flat wrappable hose occupying a minimum amount of space, suitable for delivery under pressure of water and non-aggresive liquids in agriculture, in the building industry, in mining and in industry in general.

#### Hose Construction

**Tube:** Black, smooth PVC **Reinforcement:** Synthetic textile yarns

Cover: Blue, highly abrasion and weather-

resistant smooth PVC

### Temperature Range

-15 °C (+5 °F) to +60 °C (+140 °F)



- Lay flat hose
- Cheaper alternative to PU for less demanding application
- Burst Pressure Value 3:1

#### Tolerances

Refer to Technical Handbook on page TH34

Part Number			w w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH35653025/100	25	_	0.8	116.0	8	0.17	_	Υ
IH35653032/100	32	-	0.8	116.0	8	0.21	-	Υ
IH35653038/100	38	_	0.8	116.0	8	0.25	_	Υ
IH35653040/100	40	-	0.8	116.0	8	0.26	-	Υ
IH35653045/100	45	_	0.8	116.0	8	0.29	_	Ν
IH35653051/100	51	-	0.8	116.0	8	0.37	-	Υ
IH35653063/100	63.5	_	0.8	116.0	8	0.46	_	Υ
IH35653075/100	75	-	0.8	116.0	8	0.55	-	Ν
IH35653100/100	100	_	0.8	116.0	8	0.83	_	Υ
IH35653150/100	150	-	0.3	43.5	3	1.25	-	Υ
IH35653200/50	200	_	0.3	43.5	3	1.93	_	Υ





### **MULTIREX**

For suction and delivery of water for irrigation, liquid fertilisers and general industrial uses.

#### Hose Construction

Flexible hose having an off-white, rigid PVC spiral embedded in a transparent green, flexible PVC wall

#### Temperature Range

-10 °C (+14 °F) to +60 °C (+140 °F)



- Multipurpose hose
- Very flexible hose
- Vacuum 0.7 bar for ID up to 50 mm then 0.6 bar
- Burst Pressure Value 3:1

#### Tolerances

Refer to Technical Handbook on page TH34

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	Wall (mm)	MPa	psi	bar	kg/m	mm	
IH35602019/50	19	3.0	0.7	101.5	7	0.20	60	Υ
IH35600025/50	25	3.0	0.7	101.5	7	0.29	90	Υ
IH35600030/50	30	3.1	0.6	87.0	6	0.35	90	Υ
IH35602032/50	32	3.2	0.6	87.0	6	0.37	95	Υ
IH35600035/50	35	3.5	0.6	87.0	6	0.43	105	Ν
IH35602038/50	38	3.6	0.6	87.0	6	0.49	115	Υ
IH35600040/50	40	3.7	0.6	87.0	6	0.51	120	Υ
IH35600045/50	45	4.0	0.5	72.5	5	0.57	135	Υ
IH35600050/50	50	4.0	0.5	72.5	5	0.73	150	Υ
IH35600060/50	60	4.2	0.5	72.5	5	0.96	180	Υ
IH35600070/50	70	4.5	0.4	58.0	4	1.23	315	Ν
IH35602075/50	75	4.6	0.4	58.0	4	1.47	340	Υ
IH35600080/50	80	4.7	0.4	58.0	4	1.57	360	Υ
IH35602090/25	90	4.8	0.4	58.0	4	1.92	415	Ν
IH35600100/25	100	5.0	0.4	58.0	4	2.11	450	Υ
IH35602110/25	110	5.4	0.4	58.0	4	2.56	500	N
IH35600120/25	120	5.8	0.4	58.0	4	2.69	540	Ν
IH35600150/25	150	6.5	0.3	43.5	3	3.85	675	Ν







aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding

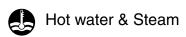




Hot water & Steam







### F - Hot water & Steam

Hose	ID Range (mm)	Temp. Range (°C)	Application
RADIOR 3	10 - 100	-40 / +100	cooling line system
RADIOR K 1003	12 - 65	-40 / +100	cooling line system
THERMOPRESS 10	12 - 60	-40 / +100	cooling line and hot water
INGLAS 30	10 - 85	-10 / +120	foudries cooling system
VAPORE 164 EN ISO 6134 Type 1/A	10 - 51	-40 / +164	steam industrial application
VIGOR EN ISO 6134 Type 2/A	13 - 51	-40 / +210	steam industrial application
VIGOR NR EN ISO 6134 Type 2/A	13 - 51	-40 / +210	steam industrial application

#### **WARNING!**

Steam hoses gradually decrease in performance during service life. Consequently, they need to be regularly inspected by trained personnel wearing adequate protective overalls, including eye protection.

Cuts and gouges in the hose cover showing the textile reinforcement. Steam leaks.Permanent deformation of hose. Reduction of steam flow. WHEN ONE OF THESE ABNORMALITIES OCCURS, THE HOSE SHOULD BE

hose. Reduction of steam flow. WHEN ONE OF THESE ABNORMALITIES OCCURS, THE HOSE SHOULD BE REMOVED FROM SERVICE AND INSPECTED. If a failure occurs close to the couplings, the damaged hose can be cut, reconnected and used as before.

Use only couplings with safety clamps. Follow the coupling manufacturer's instructions for coupling procedures. Check coupling tightness each time before use. Drain after use. When not in use, store the hose on a flat surface (shelves) and never hang from a hook.



Tube	Reinforce- ment	Cover	<b>WP</b> (bar)	Safety factor	Suction	Industry standard	Page
EPDM	textile	EPDM	3	3			F4 - F5
NBR	textile	CR	5	3			F6
EPDM	textile	EPDM	10	4			F7
EPDM	textile	EPDM	10	3			F8
EPM	textile	EPDM	6	10		EN ISO 6134 Type 1/A	F9
IIR	textile	IIR/EPDM	18	10		ENISO6134Type2/A	F10
IIR	textile	IIR/EPDM	18	10		ENISO6134Type2/A	F10



## **RADIOR 3 (COIL)**

Designed for cooling systems of automotive engines and stationary engines.

#### Hose Construction

**Tube:** Black, smooth, heat resistant EPDM

nitrosamine free rubber compound

**Reinforcement:** Synthetic textile yarn fabric **Cover:** Black, smooth, heat, ageing

and weather-resistant EPDM

nitrosamine free rubber compound

#### Temperature Range

-40 °C (-40 °F) to peaks of +100 °C (+212 °F)



- Light and flexible hose
- Also suitable as cable protection
- Nitrosamine free
- Burst Pressure Value 3:1



#### Tolerances

I.D. ≤ 22 mm according to UNI EN ISO 1307 I.D. > 22 mm according to RMA steel mandrel Refer to Technical Handbook on page TH34

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH36830095/40	10	16	0.3	43.5	3	0.16	_	Υ
IH36830096/40	12	18	0.3	43.5	3	0.19	_	Υ
IH36830097/40	15	21	0.3	43.5	3	0.23	_	Υ
IH36830101/40	18	24.5	0.3	43.5	3	0.29	_	Υ
IH36830102/40	20	26.5	0.3	43.5	3	0.32	_	Υ
IH36830103/40	22	28.5	0.3	43.5	3	0.34	_	Υ
IH36830104/40	25	32	0.3	43.5	3	0.39	_	Υ
IH36830105/40	28	36	0.3	43.5	3	0.50	_	Υ
IH36830106/40	30	38	0.3	43.5	3	0.53	_	Υ
IH36830107/40	32	40	0.3	43.5	3	0.55	-	Υ
IH36830108/40	35	43	0.3	43.5	3	0.60	_	Υ
IH36830109/40	38	47	0.3	43.5	3	0.73	_	Υ
IH36830110/40	40	49	0.3	43.5	3	0.77	_	Υ
IH36830111/40	42	51	0.3	43.5	3	0.80	_	Υ
IH36830112/40	45	54	0.3	43.5	3	0.85	_	Υ
IH36831023/40	48	57	0.3	43.5	3	0.91	_	Υ
IH36830113/40	50	60	0.3	43.5	3	1.07	_	Υ
IH36830114/40	55	65	0.3	43.5	3	1.17	_	Υ
IH36830115/40	60	70	0.3	43.5	3	1.26	_	Υ
IH36830116/20	65	76	0.3	43.5	3	1.54	_	Υ
IH36830117/20	70	81	0.3	43.5	3	1.65	_	Υ
IH36831022/20	75	86	0.3	43.5	3	1.75	_	Υ
IH36830118/20	80	92	0.3	43.5	3	2.05	_	Υ
IH36830119/20	90	102	0.3	43.5	3	2.29	_	Υ
IH36830120/20	100	113	0.3	43.5	3	2.63	_	Υ

RUBBER HOSE RADIOR DIAM, I.D. mm MADE IN ITALY Parker





### **RADIOR 3 (CUT LENGTH)**

Designed for cooling systems of automotive engines and stationary engines.

#### Hose Construction

**Tube:** Black, smooth, heat resistant EPDM

nitrosamine free rubber compound

**Reinforcement:** Synthetic textile yarn fabric **Cover:** Black, smooth, heat, ageing

and weather-resistant EPDM

nitrosamine free rubber compound

#### Temperature Range

-40 °C (-40 °F) to peaks of +100 °C (+212 °F)



- Light and flexible hose
- In piece of 1 m length
- Straight piece without snake effect
- Nitrosamine free
- Burst Pressure Value 3:1



#### Tolerances

I.D. ≤ 22 mm according to UNI EN ISO 1307 I.D. > 22 mm according to RMA steel mandrel Refer to Technical Handbook on page TH34

Part Number			Working Fressure			Weight	min. Bend Radius	in Stock
	I.D. (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH36830023/1	15	21	0.3	43.5	3	0.23	_	Υ
IH36830001/1	18	24.5	0.3	43.5	3	0.29	_	Υ
IH36830002/1	20	26.5	0.3	43.5	3	0.32	_	Υ
IH36830003/1	22	28.5	0.3	43.5	3	0.34	_	Υ
IH36830004/1	25	32	0.3	43.5	3	0.39	_	Υ
IH36830005/1	28	36	0.3	43.5	3	0.50	_	Υ
IH36830006/1	30	38	0.3	43.5	3	0.53	_	Υ
IH36830007/1	32	40	0.3	43.5	3	0.55	_	Υ
IH36830008/1	35	43	0.3	43.5	3	0.60	_	Υ
IH36830009/1	38	47	0.3	43.5	3	0.73	_	Υ
IH36830010/1	40	49	0.3	43.5	3	0.77	_	Υ
IH36830011/1	42	51	0.3	43.5	3	0.80	_	Υ
IH36830012/1	45	54	0.3	43.5	3	0.85	_	Υ
IH36831030/1	48	57	0.3	43.5	3	0.91	_	Υ
IH36830013/1	50	60	0.3	43.5	3	1.07	_	Υ
IH36830014/1	55	65	0.3	43.5	3	1.17	_	Υ
IH36830015/1	60	70	0.3	43.5	3	1.26	_	Υ
IH36830016/1	65	76	0.3	43.5	3	1.54	_	Υ
IH36830017/1	70	81	0.3	43.5	3	1.65	_	Υ
IH36831031/1	75	86	0.3	43.5	3	1.75	-	Υ
IH36830018/1	80	92	0.3	43.5	3	2.05	_	Υ
IH36830019/1	90	102	0.3	43.5	3	2.29	_	Υ
IH36830020/1	100	113	0.3	43.5	3	2.63	_	Υ



### **RADIOR K 1003**

Designed for heating and cooling systems, resistant to ASTM I/II/III oil up to +100 °C (+212 °F) with peaks up to +120 °C (+248 °F) and diesel fuel up to +50 °C (+122 °F).

#### Hose Construction

Tube: Black, smooth, heat resistant

NBR rubber compound

Reinforcement: Synthetic textile fabrics yarns Cover: Black, smooth, wrapped finish,

heat, ageing and weather-resistant

CR rubber compound

#### Temperature Range

-40 °C (-40 °F) to +100 °C (+212 °F)



- Superior Chloroprene cover compound for oil and fuel resistance
- Also suitable for B100
- Light and flexible hose
- Burst Pressure Value 3:1

#### **Tolerances**

I.D.  $\leq$  22 mm according to UNI EN ISO 1307 I.D. > 22 mm according to RMA steel mandrel Refer to Technical Handbook on page TH34

Part Number			S we	orking Pres	sure	Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH30831300/40	12	19	0.5	72.5	5	0.24	-	Υ
IH30831302/40	15	22	0.5	72.5	5	0.28	-	Υ
IH30831303/40	18	25	0.5	72.5	5	0.33	_	Υ
IH30831305/40	22	29	0.5	72.5	5	0.39	-	Υ
IH36831300/40	25	32	0.5	72.5	5	0.41	_	Υ
IH36831301/40	28	35	0.5	72.5	5	0.45	_	Υ
IH36831303/40	32	39	0.5	72.5	5	0.51	_	Υ
IH36831305/40	38	45	0.5	72.5	5	0.59	_	Υ
IH36831308/20	45	56	0.5	72.5	5	1.11	_	Ν
IH36831309/20	50	61	0.5	72.5	5	1.22	-	Υ
IH36831311/20	60	71	0.5	72.5	5	1.43	_	Ν
IH36831312/20	65	76	0.5	72.5	5	1.54	-	Ν



### **THERMOPRESS 10**

Suitable for delivery of hot water, non-aggressive hot liquids and steam to a maximum temperature of +120 °C (+248 °F). To connect boilers to air conditioning units and for hot water cleaning systems.

#### Hose Construction

**Tube:** Black, smooth, heat resistant,

EPDM nitrosamine free rubber

compound

Reinforcement: Synthetic textile fabrics or yarns

Cover: Black, smooth, heat, ageing

and weather-resistant EPDM nitrosamine free rubber compound

#### Temperature Range

-40 °C (-40 °F) to +100 °C (+212 °F), with peaks +120 °C (+248 °F)



- Robust structure
- Wide temperature range
- Nitrosamine free
- Burst Pressure Value 4:1



#### Tolerances

I.D.  $\leq$  22 mm according to UNI EN ISO 1307 I.D. > 22 mm according to RMA steel mandrel Refer to Technical Handbook on page TH34

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH36800002/100	12	22.5	1.0	150.0	10	0.38	120	Υ
IH36800003/80	15	25.5	1.0	150.0	10	0.44	150	Υ
IH36800004/80	18	28.5	1.0	150.0	10	0.51	180	Υ
IH36800005/80	20	30.5	1.0	150.0	10	0.56	200	Υ
IH36800006/40	25	35	1.0	150.0	10	0.61	250	Υ
IH36800007/40	30	41	1.0	150.0	10	0.79	300	Υ
IH36800009/40	40	54	1.0	150.0	10	1.34	400	Υ
IH36800011/40	50	68	1.0	150.0	10	2.12	500	Υ
IH36800012/40	60	82	1.0	150.0	10	3.10	600	Ν

### **INGLAS 30**

Suitable for cooling water delivery in foundries, steel and glass factories. Particularly designed to withstand short contacts with molten metal and glass.

#### Hose Construction

Tube: Black, smooth EPDM insulating

rubber compound. Resistant to hot

air and hot water

Reinforcement: Synthetic textile fabrics

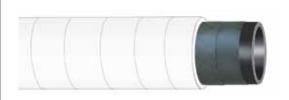
Cover: Black, smooth, EPDM rubber com-

pound, heat, abrasion and weather resistant, covered by protective

glass fiber

#### Temperature Range

-40 °C (-40 °F) - maximum of +120 °C (+248 °F) The cover withstands peaks of +375 °C (+707 °F)



- High peaks of temperature
- Specific for foundries, furnaces and glass factories
- White cover in fiber glass
- Burst Pressure Value 3:1

#### **Tolerances**

According to RMA steel mandrel Refer to Technical Handbook on page TH34

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	I.D. (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH42302702/40	10	20	1.0	150.0	10	0.27	80	Υ
IH42302704/40	13	23	1.0	150.0	10	0.33	105	Υ
IH42302710/40	19	31	1.0	150.0	10	0.56	155	Υ
IH42302716/40	25	39	1.0	150.0	10	0.88	200	Υ
IH42302718/40	32	48	1.0	150.0	10	1.23	255	Υ
IH42302726/40	38	58	1.0	150.0	10	1.89	300	Υ
IH42302732/40	42	60	1.0	150.0	10	1.69	340	Υ
IH42302724/40	45	62	1.0	150.0	10	1.71	360	Υ
IH42302740/40	51	69	1.0	150.0	10	2.05	400	Υ
IH42302754/40	65	87	1.0	150.0	10	3.21	520	Υ
IH42302758/40	85	110	1.0	150.0	10	5.47	680	Υ



## **VAPORE 164 EN ISO 6134 TYPE 1/A**

According to EN ISO 6134 type 1/A

Designed for saturated steam (max 6 bar at +164 °C = 90 psi at +327 °F) in general industrial applications.

#### Hose Construction

Tube: Black, smooth, EPM nitrosamine

free rubber compound, heat and

saturated steam resistant

Reinforcement: High resistant synthetic textile

fabrics

Cover: Black or red (NR), smooth, EPDM

nitrosamine free rubber compound, heat, abrasion, ozone and weather resistant. The cover is pinpricked to prevent blistering and bubbling.

#### Temperature Range

-40 °C (-40 °F) to +164 °C (+327 °F)



- Nitrosamine free
- Pin-pricked cover
- Available on request with red cover
- Working pressure for hot water 20 bar with a safety factor of 3:1
- Burst Pressure Value 10:1

#### Tolerances

According to EN ISO 6134

Refer to Technical Handbook on page TH34

Part Number			Working Pressure			Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36800098/40	10	21	0.6	90.0	6	0.29	100	N
IH36800088/40	13	25	0.6	90.0	6	0.35	130	Υ
IH36800089/40	16	30	0.6	90.0	6	0.39	150	Υ
IH36800090/40	19	33	0.6	90.0	6	0.70	190	Υ
IH36800091/40	25	40	0.6	90.0	6	0.92	250	Υ
IH36800092/40	32	48	0.6	90.0	6	1.11	320	Ν
IH36800093/40	38	54	0.6	90.0	6	1.42	380	N
IH36800096/40	51	69	0.6	90.0	6	2.07	500	N

**WARNING!** see page F2



### **VIGOR EN ISO 6134 TYPE 2/A**

According to EN ISO 6134 type 2/A

Designed for high pressure saturated steam (max 18 bar at +210 °C = 261 psi at +410 °F). Suitable for loading saturated and superheated steam in cleaning and sterilization applications, petrochemical industry and general steam service applications

#### Hose Construction

Tube: Black, smooth, extruded IIR

rubber compound. Heat and saturated steam resistant

**Reinforcement:** High tensile steel cords

Cover: Black, smooth, extruded IIR/EPDM

rubber compound. Heat, abrasion, ozone and weather resistant.
The cover is pinpricked to prevent

blistering and bubbling.

#### Temperature Range

 $-40 \,^{\circ}\text{C} (-40 \,^{\circ}\text{F}) \text{ to } +210 \,^{\circ}\text{C} (+410 \,^{\circ}\text{F})$  with peaks up to +235  $\,^{\circ}\text{C} (+455 \,^{\circ}\text{F})$ 



- Wide range temperature
- Pin-pricked cover
- Two cover color lines: black and red
- Working pressure for hot water 45 bar with a safety factor of 4:1
- Burst Pressure Value 10:1

#### Tolerances

According to EN ISO 6134

Refer to Technical Handbook on page TH34

Part Number			Working Pressure			Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
VIGOR black				,	,			
IH36801740/40	13	25	1.8	261.0	18	0.51	130	Υ
IH36801741/40	16	30	1.8	261.0	18	0.70	160	Ν
IH36801742/40	19	33	1.8	261.0	18	0.77	190	Υ
IH36801743/40	25	40	1.8	261.0	18	1.06	250	Υ
IH36801744/40	32	48	1.8	261.0	18	1.39	320	Ν
IH36801745/40	38	54	1.8	261.0	18	1.60	380	Ν
IH36801746/40	51	69	1.8	261.0	18	2.56	500	Ν
VIGOR red								
IH36801770/40	13	25	1.8	261.0	18	0.51	130	Ν
IH36801771/40	16	30	1.8	261.0	18	0.70	160	Ν
IH36801772/40	19	33	1.8	261.0	18	0.79	190	Ν
IH36801773/40	25	40	1.8	261.0	18	1.06	250	Ν
IH36801774/40	32	48	1.8	261.0	18	1.41	320	N
IH36801775/40	38	54	1.8	261.0	18	1.62	380	Ν
IH36801776/40	51	69	1.8	261.0	18	2.59	500	N

**WARNING!** see page F2

RUBBER HOSE VIGOR - EN ISO 6136:2005 - 26 - steam - 18 har - 210 °C - I D. mm - () - MADE IN ITALY

RUBBER HOSE VIGOR - EN ISO 6134:2005 - 2A - steam - 18 bar - 210 °C - I.D. mm -  $\Omega$  - MADE IN ITALY









aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding





**Acid & Chemicals** 







## G - Acid & Chemicals

Hose	ID Range (mm)	Temp. Range (°C)	Application
POLIAX D EN12115 LL	13 - 25	-35 / +100	chemical resistance table
POLIAX D EN 12115	19 - 100	-35 / +100	chemical resistance table
POLIAX D SM EN 12115	19 - 100	-35 / +100	chemical resistance table
POLIAX UPE CON EN 12115	19 - 100	-20 / +100	chemical resistance table
POLIAX UPE CON SM EN 12115	19 - 100	-20 / +100	chemical resistance table
POLIAX UPE CON SM EN 12115 OND	19 - 100	-20 / +100	chemical resistance table
FRUTPRESS N/L 50	10 - 16	-20 / +80	agricultural spray
FRUTPRESS N/L 100	10 - 13	-20 / +80	agricultural spray

#### **WARNING!**

If delivering chemicals over +25 °C (+77 °F), please contact us. Many chemical products can cause severe injuries to people or damage to property, and here are risks of environmental pollution in case of leakage or hose burst. All necessary measures must be taken in order to avoid accidents both during normal service operations and during hydrostatic tests, which must be carried out by trained personnel using suitable tools.





Tube	Reinforce- ment	Cover	<b>WP</b> (bar)	Safety factor	Suction	Industry standard	Page
EPM	textile + copper wires	EPDM	16	4		EN 12115	G4
EPM	textile + copper wires	EPDM	16	4		EN 12115	G5
EPM	textile + copper wires	EPDM	16	4	yes	EN 12115	G6
UHMWPE	textile + copper wires	EPDM	16	4		EN 12115	G7
UHMWPE	textile + copper wires	EPDM	16	4	yes	EN 12115	G8
UHMWPE	textile + copper wires	EPDM	16	4	yes	EN12115	G9
NBR	textile	EPDM/NBR	50	3			G10
NBR	textile	EPDM/NBR	100	3			G10



### **POLIAX D EN 12115 LL**

#### According to EN 12115

Suitable for delivery of highly aggressive chemicals, according to EN 12115.

#### Hose Construction

**Tube:** Black, smooth antistatic

 $(R < 1 M\Omega/m)$ , EPM nitrosamine

free rubber compound

**Reinforcement:** Synthetic textile yarns and built-in

copper wires to facilitate the electrical connection between hose and

end couplings

**Cover:** Black, antistatic (R < 1 M $\Omega$ /m),

EPDM rubber compound, heat, abrasion, ageing and weather

resistant

#### Temperature Range

-35 °C (-31 °F) to +100 °C (+212 °F)

For aggressive chemicals and solvents the hose is intended to be used at room temperature. The hose can be cleaned and sterilized with usual detergents or steam – a temperature of +130 °C (+266 °F) for short periods.



- Available in long continuous length
- Nitrosamine free
- In-plant and storage tank transfer
- Suitable for ATEX areas
- Meets TRbF 131 part 2 par 5.5 (flame resistance)
- Burst Pressure Value 4:1

#### **Tolerances**

According to EN 12115

Refer to Technical Handbook on page TH34

Part Number			Working Pressure			Weight	min. Bend Radius	in Stock
	I.D. (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH30810130/40	13	23	1.6	232.0	16	0.33	90	Υ
IH30810132/40	19	31	1.6	232.0	16	0.55	125	Υ
IH30810133/40	25	37	1.6	232.0	16	0.73	150	Υ

#### WARNING!

If delivering chemicals over +25 °C (+77 °F), please contact us. Many chemical products can cause severe injuries to people or damage to property, and here are risks of environmental pollution in case of leakage or hose burst. All necessary measures must be taken in order to avoid accidents both during normal service operations and during hydrostatic tests, which must be carried out by trained personnel using suitable tools.

POLIAX D EN 12115:2011 - EPDM - D - I.D. - WP 16 bar - Ω - TRbF 131 T2p. 5.5 - Quarter/Year — Parker MADE IN ITALY





### **POLIAX D EN 12115**

### According to EN 12115

Suitable for delivery of highly aggressive chemicals, according to EN 12115,

#### Hose Construction

**Tube:** Black, smooth antistatic EPM ni-

trosamine free rubber compound

Reinforcement: Synthetic textile fabrics and built-in

copper wires to facilitate the electri-

cal connection between hose and

end couplings

Cover: Black, antistatic (R < 1 M $\Omega$ /m),

EPDM rubber compound, heat, abrasion, ageing and weather

resistant

#### Temperature Range

-35 °C (-31 °F) to +100 °C (+212 °F)

For aggressive chemicals and solvents the hose is intended to be used at room temperature. The hose can be cleaned and sterilized with usual detergents or steam – a temperature of +130 °C (+266 °F) for short periods.



- In-plant and storage tank transfer
- Nitrosamine free
- Suitable for ATEX areas
- Meets TRbF 131 part 2 par 5.5 (flame resistance)
- Burst Pressure Value 4:1

#### Tolerances

According to EN 12115

Refer to Technical Handbook on page TH34

Part Number			Working Pressure			Weight	min. Bend Radius	in Stock
	I.D. (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH36810130/40	19	31	1.6	232.0	16	0.56	125	Υ
IH36810131/40	25	37	1.6	232.0	16	0.71	150	Υ
IH36810132/40	32	44	1.6	232.0	16	0.86	175	Υ
IH36810133/40	38	51	1.6	232.0	16	1.11	225	Υ
IH36810134/40	50	66	1.6	232.0	16	1.72	275	Υ
IH36810135/40	63.5	79	1.6	232.0	16	2.10	300	Ν
IH36810136/40	75	91	1.6	232.0	16	2.56	350	Ν
IH36810137/40	100	116	1.2	180.0	12	3.38	450	N

#### WARNING!

If delivering chemicals over +25 °C (+77 °F), please contact us. Many chemical products can cause severe injuries to people or damage to property, and here are risks of environmental pollution in case of leakage or hose burst. All necessary measures must be taken in order to avoid accidents both during normal service operations and during hydrostatic tests, which must be carried out by trained personnel using suitable tools.



### **POLIAX D SM EN 12115**

#### According to EN 12115

Suitable for suction and delivery of highly aggressive chemicals, according to EN 12115.

#### Hose Construction

Tube: Black, smooth antistatic EPM

nitrosamine free rubber compound

**Reinforcement:** Synthetic textile fabrics, embedded

steel wire helix and built-in copper wires to facilitate the electrical connection between hose and end

couplings

Cover: Black, antistatic (R < 1 M $\Omega$ /m),

> EPDM rubber compound, heat, abrasion, ageing and weather

resistant

#### Temperature Range

-35 °C (-31 °F) to +100 °C (+212 °F)

For aggressive chemicals and solvents the hose is intended to be used at room temperature. The hose can be cleaned and sterilized with usual detergents or steam - a temperature of +130 °C (+266 °F) for short periods.



- In-plant and storage tank transfer
- Nitrosamine free
- Flexibility and kink resistance



- Meets TRbF 131 part 2 par 5.5 (flame resistance)
- Vacuum 0.9 bar up to 63.5 mm then 0.8 bar
- Burst Pressure Value 4:1

#### Tolerances

According to EN 12115 Refer to Technical Handbook on page TH34

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36810111/40	19	31	1.6	232.0	16	0.70	125	Υ
IH36810112/40	25	37	1.6	232.0	16	0.92	150	Υ
IH36810113/40	32	44	1.6	232.0	16	1.09	175	Υ
IH36810114/40	38	51	1.6	232.0	16	1.35	225	Υ
IH36810115/40	50	66	1.6	232.0	16	1.84	275	Υ
IH36810116/40	63.5	79	1.6	232.0	16	2.54	300	Υ
IH36810117/40	75	91	1.6	232.0	16	3.12	350	Υ
IH36810118/40	100	116	1.2	180.0	12	4.41	450	N

If delivering chemicals over +25 °C (+77 °F), please contact us. Many chemical products can cause severe injuries to people or damage to property, and here are risks of environmental pollution in case of leakage or hose burst. All necessary measures must be taken in order to avoid accidents both during normal service operations and during hydrostatic tests, which must be carried out by trained personnel using suitable tools.



POLIAX D EN 12115:2011 - EPDM - SD - I.D. - WP ...bar - Ω - TRbF 131 T2p. 5.5 - Quarter/Year 👚 – Parker 📉 MADE IN ITALY



### **POLIAX UPE CON EN 12115**

#### According to EN 12115

POLIAX UPE CON EN 12115 is suitable for delivery of a wide range of highly aggressive chemicals such as most industrial acids, alkalis, oils, fuels and solvents. It can also be used as a flexible connections in paint plants.

Refer to the Chemical Resistant Chart to determine compatibility with specific chemicals. For severe or special applications – for tighter bending radius – or if in doubt, please ask our Technical Assistance.

#### Hose Construction

**Tube:** Lucent, black, smooth, conductive,

ultra high molecular weight polyethylene (UHMWPE), suitable for foodstuff contact according to FDA,

EEC Directive, Italian Decrees

**Reinforcement:** Synthetic textile fabrics with built-in

copper wires to allow the electrical connection between hose and

couplings

**Cover:** Black, antistatic (R < 1 M $\Omega$ /m),

EPDM rubber compound, heat, abrasion, ageing and weather

resistant



- In-plant and storage tank transfer
- Fits also foodstuffs according to FDA
- Suitable for ATEX areas
- Meets TRbF 131 part 2 par 5.5 (flame resistance)
- Burst Pressure Value 4:1

#### Temperature Range

-20 °C (+5 °F) to +100 °C (+212 °F)

For aggressive chemicals and solvents the hose is intended to be used at room temperature. The hose can be cleaned and sterilized with usual detergents or steam – a temperature of +130  $^{\circ}$ C (+266  $^{\circ}$ F) for short periods.

#### **Tolerances**

According to EN 12115

Refer to Technical Handbook on page TH34

Part Number			Working Pressure			Weight	min. Bend Radius	in Stock
	I.D. (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH36811590/40	19	31	1.6	232.0	16	0.61	125	N
IH36811591/40	25	37	1.6	232.0	16	0.73	150	N
IH36811592/40	32	44	1.6	232.0	16	0.90	175	Ν
IH36811593/40	38	51	1.6	232.0	16	1.09	225	N
IH36811594/40	50	66	1.6	232.0	16	1.80	275	N
IH36811595/40	63.5	79	1.6	232.0	16	1.96	300	N
IH36811596/40	75	91	1.6	232.0	16	2.47	350	N
IH36811597/20	100	116	1.2	180.0	12	3.20	450	N

#### WARNING!

If delivering chemicals over +25 °C (+77 °F), please contact us. Many chemical products can cause severe injuries to people or damage to property, and here are risks of environmental pollution in case of leakage or hose burst. All necessary measures must be taken in order to avoid accidents both during normal service operations and during hydrostatic tests, which must be carried out by trained personnel using suitable tools.





Catalogue 4401/UK

POLIAX EN 12115:2011 - UPE - D - I.D. - WP ...bar -  $\Omega$  - TRbF 131 T2p. 5.5 - Quarter/Year

### **POLIAX UPE CON SM EN 12115**

According to EN 12115

POLIAX UPE CON SM EN 12115 OND is a very flexible hose suitable for suction and delivery of a wide range of highly aggressive chemicals such as most industrial acids, alkalis, oils, fuels and solvents. It can also be used as a flexible connections in paint plants.

Refer to the Chemical Resistant Chart to determine compatibility with specific chemicals. For severe or special applications – for tighter bending radius – or if in doubt, please ask our Technical Assistance.

#### Hose Construction

**Tube:** Lucent, black, smooth, conductive,

ultra high molecular weight polyethylene (UHMWPE), suitable for foodstuff contact according to FDA,

EEC Directive, Italian Decrees

Reinforcement: Synthetic textile fabrics, embedded

steel wire helix and built-in copper wires to allow the electrical connection between hose and couplings

Black, antistatic (R < 1 M $\Omega$ /m),

EPDM rubber compound, heat, abrasion, ageing and weather

resistant



- High flexibility and kink resistance
- Fits also foodstuffs according to FDA
- Suitable for ATEX areas
- Meets TRbF 131 part 2 par 5.5 (flame resistance)
- Vacuum: 0.9 bar up to dn 63.5,
   0.8 bar for larger sizes
- Burst Pressure Value 4:1

#### Temperature Range

-20 °C (+5 °F) to +100 °C (+212 °F)

For aggressive chemicals and solvents the hose is intended to be used at room temperature. The hose can be cleaned and sterilized with usual detergents or steam – a temperature of +130 °C (+266 °F) for short periods.

#### **Tolerances**

According to EN 12115

Refer to Technical Handbook on page TH34

Part Number			Working Pressure			Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36811529/40	19	31	1.6	232.0	16	0.71	190	Υ
IH36811530/40	25	37	1.6	232.0	16	0.87	230	Υ
IH36811531/40	32	44	1.6	232.0	16	1.07	260	Υ
IH36811532/40	38	51	1.6	232.0	16	1.35	340	Υ
IH36811534/40	50	66	1.6	232.0	16	2.29	410	Υ
IH36811535/40	63.5	79	1.6	232.0	16	2.51	450	Υ
IH36811536/40	75	91	1.6	232.0	16	3.07	530	Υ
IH36811538/20	100	116	1.2	180.0	12	4.43	680	N

#### **WARNING!**

Cover:

If delivering chemicals over +25 °C (+77 °F), please contact us. Many chemical products can cause severe injuries to people or damage to property, and here are risks of environmental pollution in case of leakage or hose burst. All necessary measures must be taken in order to avoid accidents both during normal service operations and during hydrostatic tests, which must be carried out by trained personnel using suitable tools.



POLIAX EN 12115:2011 - UPE - SD - I.D. - WP ...bar -  $\Omega$  - TRbF 131 T2p. 5.5 - Quarter/Year



## **POLIAX UPE CON SM OND EN 12115**

According to EN 12115

POLIAX UPE CON SM EN 12115 OND is a very flexible hose suitable for suction and delivery of a wide range of highly aggressive chemicals such as most industrial acids, alkalis, oils, fuels and solvents. It can also be used as a flexible connections in paint plants.

Refer to the Chemical Resistant Chart to determine compatibility with specific chemicals. For severe or special applications – for tighter bending radius – or if in doubt, please ask our Technical Assistance.

#### Hose Construction

Tube: Lucent, black, smooth, conductive,

ultra high molecular weight polyethylene (UHMWPE), suitable for foodstuff contact according to FDA,

EEC Directive, Italian Decrees

Reinforcement: Synthetic textile fabrics, embedded

steel wire helix and built-in copper wires to allow the electrical connection between hose and couplings

**Cover:** Black, corrugated, antistatic

 $(R < 1 M\Omega/m)$ , EPDM rubber compound, heat, abrasion, ageing and

weather resistant



- Extreme flexibility, superior kink resistance, minimal force to bend
- Fits also foodstuffs according to FDA
- Suitable for ATEX areas
- Meets TRbF 131 part 2 par 5.5 (flame resistance)
- Vacuum: 0.9 bar up to dn 63.5, for larger sizes 0.8 bar
- Burst Pressure Value 4:1

#### Temperature Range

-20 °C (+5 °F) to +100 °C (+212 °F)

For aggressive chemicals and solvents the hose is intended to be used at room temperature. The hose can be cleaned and sterilized with usual detergents or steam – a temperature of +130 °C (+266 °F) for short periods.

#### Tolerances

According to EN 12115

Refer to Technical Handbook on page TH34

Part Number			Working Pressure			Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH36811570/40	19	31	1.6	232.0	16	0.71	38	Υ
IH36811571/40	25	37	1.6	232.0	16	0.87	50	Υ
IH36811572/40	32	44	1.6	232.0	16	1.07	64	Υ
IH36811573/40	38	51	1.6	232.0	16	1.35	76	Υ
IH36811574/40	50	66	1.6	232.0	16	2.29	100	Υ
IH36811575/40	63.5	79	1.6	232.0	16	2.51	127	Ν
IH36811576/40	75	91	1.6	232.0	16	3.07	150	Ν
IH36811577/20	100	116	1.2	180.0	12	4.43	200	N

#### WARNING!

If delivering chemicals over +25 °C (+77 °F), please contact us. Many chemical products can cause severe injuries to people or damage to property, and here are risks of environmental pollution in case of leakage or hose burst. All necessary measures must be taken in order to avoid accidents both during normal service operations and during hydrostatic tests, which must be carried out by trained personnel using suitable tools.



## **FRUTPRESS**

Suitable for insecticides and herbicide agricultural sprays.

#### Hose Construction

Tube: Black, smooth, insecticide with

solvent and herbicide resistant

NBR rubber compound

Reinforcement: Synthetic textile yarns

Cover: Black, smooth: heat, abrasion and

weather-resistant, EPDM/NBR

rubber compound

#### Temperature Range

-20 °C (-4 °F) to +80 °C (+176 °F)



- Good flexibility
- Pesticides and fertilizer too
- Agricultural, commercial and residential sprayers
- High working pressure
- Burst Pressure Value 3:1

#### Tolerances

According to UNI EN ISO 1307
Refer to Technical Handbook on page TH34

Part Number			Working Pressure			Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
FRUTPRESS N/L 50		,	,			•		
IH30135002/100	10	19	5.0	725.0	50	0.28	60	Υ
IH30140040/80	16	26	5.0	725.0	50	0.46	100	Υ
FRUTPRESS N/L 100								
IH30136005/100	10	21	10.0	1450.0	100	0.37	60	Υ
IH30136010/80	13	24	10.0	1450.0	100	0.45	80	Υ







aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding

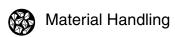




## **Material Handling**







## H - Material Handling

Hose	ID Range (mm)	Temp. Range (°C)	Application
LIBECCIO EN ISO 3861	19 - 100	-30 / +70	wet abd dry sand and cement
CEMENT 713 10	50 - 100	-30 / +70	wet abd dry sand and cement
CEMENT SM 10	50 - 125	-30 / +70	wet abd dry sand and cement
VIBRACORD 10	25 - 30	-20 / +80	pneumatic vibrators for concrete
INTONACATRICI 40	25 - 65	-30 / +70	wet abd dry sand and cement
BETON 80	51 - 125	-40 / +70	high pressure concrete pumping
CERGOM	25 - 200	-30 / +70	high abrasive materials



Tube	Reinforce- ment	Cover	<b>WP</b> (bar)	Safety factor	Suction	Industry standard	Page
BR/NR	textile	SBR/NBR	10	4		EN ISO 3861	H4
BR/NR	textile + copper wires	SBR	10	3			Н5
BR/NR	textile	SBR	10	3	yes		Н6
SBR	textile	SBR	10	3			H7
BR/NR	textile	SBR	40	3			Н8
NR/SBR	steel wire	NR/SBR	80	2.5			Н9
CERAMIC	textile + copper wires	SBR/NBR	6	3	yes		H10



## **LIBECCIO EN ISO 3861**

#### According to EN ISO 3861

Suitable for conveying of wet and dry sand and grit blasting materials.

#### Hose Construction

**Tube:** Smooth, black, antistatic, abrasion

resistant BR/NR rubber compound. Abrasion according to ISO 4649:

max. 60 - 70 mm<sup>3</sup>

Reinforcement: Synthetic textile fabrics

Cover: Black, smooth, antistatic, weather

and abrasion resistant SBR/NBR compound. The cover is pinpricked to prevent blistering and bubbling, max. resistance on finished hose:

 $2,0 \text{ M}\Omega/\text{m}$ 

#### Temperature Range

-30 °C (-22 °F) to +70 °C (+158 °F)



- Exceeds EN ISO 3861 requirements
- Robust and light version available
- Construction, general industry, shipyards
- Burst Pressure Value 4:1

#### **Tolerances**

Part Number		S w	orking Pres	sure	Weight	min. Bend Radius	in Stock	
	I.D. (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH36820300/40	19	33	1.0	150.0	10	0.69	190	Υ
IH36820200/40	25	40	1.0	150.0	10	0.92	250	Υ
IH36820201/40	30	45	1.0	150.0	10	1.05	300	Υ
IH36820202/40	32	48	1.0	150.0	10	1.37	320	Υ
IH36820303/40	38	55	1.0	150.0	10	1.46	380	Υ
IH36820305/40	42	60	1.0	150.0	10	1.70	420	Ν
IH36820206/40	50	72	1.0	150.0	10	2.54	500	Υ
IH36820207/40	60	82	1.0	150.0	10	2.95	600	Υ
IH36820209/20	80	105	1.0	150.0	10	4.32	800	Υ
IH36820210/20	90	115	1.0	150.0	10	4.84	900	N
IH36820211/20	100	125	1.0	150.0	10	5.30	1000	Υ



## **CEMENT 713 10**

Suitable for delivery of dry cement, grain, seeds and animal feed to road tankers and storage bins or silos.

#### Hose Construction

Tube: Smooth, black, antistatic, abrasion

resistant BR/ NR rubber compound. Abrasion according to DIN 53516;

ISO 4649; ASTM D 5963:

 $max. 60 - 70 \text{ } mm^3$ 

Reinforcement: Synthetic textile fabrics and built-in

copper wire giving electrical conti-

nuity between both ends

Cover: Black, abrasion and weather-

resistant, SBR rubber compound

#### Temperature Range

-30 °C (-22 °F) to +70 °C (+158 °F)



- Construction, general industry
- In-plant transfer/loading, bulk transport trucks
- Burst Pressure Value 3:1

#### Tolerances

Part Number			Working Pressure			Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH36822223/40	50	68	1.0	145.0	10	2.04	600	N
IH36822225/40	63.5	81	1.0	145.0	10	2.49	760	Ν
IH36822217/40	75	93	1.0	145.0	10	2.92	900	Υ
IH36822222/40	80	98	1.0	145.0	10	3.10	960	Ν
IH36822230/40	90	110	1.0	145.0	10	3.90	1080	Ν
IH36822220/40	100	120	1.0	145.0	10	4.29	1200	Υ



## **CEMENT SM 10**

Suitable for suction and delivery of dry cement to road tankers and storage bins or silos.

#### Hose Construction

**Tube:** Black, antistatic smooth abrasion

resistant BR/NR rubber compound,

abrasion max. 60 - 70 mm<sup>3</sup>

Reinforcement: Synthetic textile fabrics,

embedded steel wire helix

Cover: Black, abrasion and weather-

resistant, SBR rubber compound

#### Temperature Range

-30 °C (-22 °F) to +70 °C (+158 °F)



- In-plant transfer/loading, bulk transport trucks
- Construction, general industry
- Good flexibility
- Vacuum 0.8 bar
- Burst Pressure Value 3:1

#### Tolerances

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36923100/40	50	64	0.1	150.0	10	1.92	300	Υ
IH36923101/40	60	74	0.1	150.0	10	2.26	360	N
IH36923105/20	75	93	0.1	150.0	10	3.53	450	Ν
IH36923102/20	100	118	0.1	150.0	10	4.80	600	Υ
IH36923109/20	120	140	0.1	150.0	10	6.54	720	Ν
IH36923107/20	125	143	0.1	150.0	10	5.77	750	N



## **VIBRACORD 10**

Designed for electrical or pneumatic vibrators for concrete.

#### Hose Construction

Black, smooth, SBR rubber com-Tube:

pound

Reinforcement: Synthetic textile fabric

Cover: Black, smooth SBR rubber com-

pound, resistant to abrasion

and weathering

#### Temperature Range

-20 °C (-4 °F) to +80 °C (+176 °F)



- Only air delivery
- Good resistance to abrasion and weathering
- Burst Pressure Value 3:1

#### Tolerances

Part Number			Working Pressure			Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH36874542/40	25	40	1.0	150.0	10	1.24	250	N
IH36874541/40	30	41	1.0	150.0	10	0.99	300	Ν



## **INTONACATRICI 40**

Designed for delivery of plaster and abrasive materials such as mortar and wet cement from plastering machines or spray nozzles.

#### Hose Construction

Tube: Black, abrasion resistant, antistatic

smooth BR/NR rubber compound.

Abrasion max. 60 - 70 mm<sup>3</sup>

Reinforcement: Synthetic textile fabrics

Cover: Black, abrasion and weather-re-

sistant, SBR rubber compound

#### Temperature Range

-30 °C (-22 °F) to +70 °C (+158 °F)



- Construction, general industrial
- Cover resistant to cuts, gouges, scuffs
- High working pressure
- Burst Pressure Value 3:1

#### **Tolerances**

Part Number	0		Working Pressure			Weight	min. Bend Radius	in Stock
	I.D. (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH36822030/40	25	38	4.0	600.0	40	0.89	300	Υ
IH36822041/40	32	46	4.0	600.0	40	1.14	380	Υ
IH36822031/40	50	66	4.0	600.0	40	1.95	600	Ν
IH36822050/20	65	85	4.0	600.0	40	3.04	780	Ν



## **BETON 80**

Suitable for placement of concrete at casting locations by concrete pumps at the ends of the machine arms.

Supplied assembled with swaged on full flow hardened couplings at one end or both ends.

#### Hose Construction

Tube: Smooth, black NR/SBR compound

resistant to the abrasive action of the concrete abrasion DIN 53516:

max. 50±5 mm<sup>3</sup>

Reinforcement: Steel wire cord plies

Cover: Black, smooth, weather and abra-

sion resistant NR/SBR rubber

compound

#### Temperature Range

-40 °C (-40 °F) to +70 °C (+158 °F)



- Flexibility and kink resistance also for easy cleaning
- Wet abrasive materials
- High abrasion resistant tube assures longer service life
- Dedicated fitting series
- Burst Pressure Value 2.5:1

#### **Tolerances**

On outside diameter

According to RMA steel mandrel

On inside diameter

According to UNI EN ISO 1307 Refer to Technical Handbook on page TH34

Part Number			Working Pressure			Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH36827051/0	51	75	8	1200	80	3,96	380	Υ
IH36827052/0	65	89	8	1200	80	4,84	400	Υ
IH36827053/0	76	100	8	1200	80	5,4	400	Ν
IH36827054/0	100	124	8	1200	80	7,04	550	Ν
IH36827055/0	125	150	8	1200	80	8,9	700	Ν

#### Branding

On the coupling: BETON 80 bar Parker month/year



## **CERGOM**

#### Parker Global Product

Suitable for pneumatic suction and delivery of dry cement, coal, CDR (fuel by-waste material), minerals, ceramic powder, glass recovery, fibreglass, and to load tankers and storage bins or silos. Applications in the industries: steelworks, cookery, thermoelectric power plant, cement works, mining industries, ceramic works, glassworks, insulating material manufactures etc. Supplied in customized lengths.

#### Hose Construction

Tube: Ceramic hexagonal plates (sinter-

> ized Alumina Oxide) processed to match black BR/NR rubber compound, highly resistant to abrasion

Reinforcement: Synthetic textile fabrics, embedded

steel wire helix and built-in copper wires to provide electrical continuity

between both ends

Cover: Black, antistatic (R < 2.0 M $\Omega$ /m),

> abrasion and weather-resistant, SBR/NBR rubber compound



- Parker International Patent PCT-EP2007-057488
- Outstanding resistance at the abrasion
- Unique construction provides service life many times longer than traditional rubber hoses
- Reduces operations, logistics and admin costs
- Customized assemblies with built-in tech
- Burst Pressure Value 3:1

#### Temperature Range

-30 °C (-22 °F) to +70 °C (+158 °F)

#### **Tolerances**

Length tolerance ±1%

Part Number			S w	orking Pres	Weight	min. Bend Radius	in Stock	
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH36829020/0	25	49	0.6	90.0	6	2.59	375	Ν
IH36829021/0	32	56	0.6	90.0	6	3.07	480	Ν
IH36829022/0	38	62	0.6	90.0	6	3.48	570	Ν
IH36829023/0	42	66	0.6	90.0	6	3.75	630	Ν
IH36829024/0	48	72	0.6	90.0	6	4.17	720	Ν
IH36829025/0	50	74	0.6	90.0	6	4.31	750	Ν
IH36829026/0	60	86	0.6	90.0	6	5.27	900	Ν
IH36829027/0	63.5	90	0.6	90.0	6	5.54	953	Ν
IH36829028/0	70	100	0.6	90.0	6	6.00	1050	Ν
IH36829029/0	75	105	0.6	90.0	6	6.35	1125	Ν
IH36829030/0	80	110	0.6	90.0	6	6.93	1200	Ν
IH36829031/0	100	132	0.6	90.0	6	8.56	1500	N
IH36829032/0	114	147	0.6	90.0	6	13.24	1710	Ν
IH36829033/0	125	158	0.6	90.0	6	14.42	1875	Ν
IH36829034/0	150	188	0.6	90.0	6	19.42	2250	Ν
IH36829035/0	200	240	0.6	90.0	6	27.68	3045	Ν





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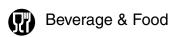




Beverage & Food







## I - Beverage & Food

Hose	ID Range (mm)	Temp. Range (°C)	Application
DRINKPRESS 164	10 - 25	-20 / +164	food & beverage and steam
GAMBRINUS UPE WB SM EN12115	19 - 100	-15 / +100	food & beverage
GAMBRINUS BLUE 10	19 - 100	-40 / +80	fatty food & beverage
GAMBRINUS BLUE SM 10	19 - 100	-40 / +80	fatty food & beverage
GAMBRINUS RED 10	19 - 63.5	-40 / +120	wine and soft drinks food & beverage
GAMBRINUS RED SM 10	19 - 100	-40 / +120	wine and soft drinks food & beverage
GAMBRINUS BLACK SM 10	50 - 100	-40 / +80	abrasive food
VINITRESS	6 - 50	-20 / +60	food & beverage
APERSPIR	10 - 150	-10 / +60	food & beverage
ENOREX	25 - 150	-25 / +60	wine and soft drinks food & beverage
TE Potable Water PU Hose	32 - 150	-40 / +80	potable water transfert

# Guidelines to the Use and Cleaning of Food Rubber Hose

The hoses offered in our catalogue are manufactured in accordance with the best production practices, observing the international norms and specifications regulating this sector to guarantee safety, performance, quality and hygiene.

Transport, storage, handling, usage andmedia may contaminate the hose and affect its performance.

Therefore Parker recommends cleaning and sanitizing the hose prior to and after each use to maintain hose efficiency and prevent harmful contamination.

However our suggestions are superseded by specific local government regulations.

Before the use of Food hose:

- Flush with drinking water at 20 °C for max 10 min
- Cleaning process with detergents/chemicals
- Rinse with drinking water at 20 °C for max 10 min
- Sterilization at 110 °C for max 30 min
- Rinse with drinking water at 20 °C for max 10 min
- Check to determine that all residuals have been eliminated

The frequency depends on the type of food and liquid conveyed and environment condition.

The frequency and time of exposure to detergents/disinfectants may compromise the service life of the hose. Thus we recommend regular inspection of the hose to evaluate its physical conditions.





Tube	Reinforce- ment	Cover	WP (bar)	Safety factor	Suction	Industry standard	Page
NBR	textile	NBR/PVC	20	3		DM 21/03/73 - FDA	14
UHMWPE	textile + copper wires	EPDM	16	4	yes	**EN12115-FDA-DM	15
NBR	textile	NBR	10	3		* BfR - DM - FDA - EC	16
NBR	textile	NBR	10	3	yes	* BfR - DM - FDA - EC	17
EPDM	textile	EPDM	10	3		* BfR - DM - FDA - EC	18
EPDM	textile	EPDM	10	3	yes	* BfR - DM - FDA - EC	19
NR/SBR	textile	NR/SBR	10	3	yes	* BfR - DM - FDA - EC	l10
PVC	textile	PVC	20	3		EC 90/128 CLASS A-B-C	l11
PVC	steel wire	PVC	12	3	yes	EC 90/128 CLASS A-B-C	l12
PVC	PVC wire		10	3	yes	EC 1935:2004 CLASS A-B-C	l13
PU	textile	PU	20	2		WRAS - DWI - NSF 61	l14

<sup>\*</sup> BfR Class2 - DM 21/03/73 - FDA title21 - EC 1935/2004

Product	Compound	Concentration	Temperature
Hot Water	All	0	Up to 95 °C
Steam	All	0	Up to 110 °C
Caustic Soda	All	2 % max 5 % max	85 °C max 25 °C max
Nitric Acid	NR/SBR	0.1 % max 2 % max	85 °C max 25 °C max
Chlorine Acetic acid	NR/SBR	1 % max	25 °C max
Per acetic acid	NR/SBR	1.5 % max	25 °C max
Phosphoric acid	NR/SBR	2 % max	65 °C max



<sup>\*\*</sup> EN 12115 - FDA title21 - DM 21/03/73 - DM 220 26/04/93

## **DRINKPRESS 164**

Recommended for delivery of all foodstuffs containing animal or vegetable fats and oils as well as beverages and liqueurs. Ideal for cleaning diaries, slaughter houses, food processing plants with hot water and steam.

#### Hose Construction

Tube: White, smooth NBR rubber

compound, non-toxic, odorless

and taste-free.

Resistant to steam and hot water

**Reinforcement:** Synthetic textile yarns

Blue, smooth NBR/PVC rubber Cover:

> compound. Oils, grease, abrasion and weather-resistant. Pin-pricked cover to prevent blisters during use.

#### Temperature Range

-20 °C (+4 °F) to +95 °C (+203 °C) for foodstuffs up to +164 °C (+327 °F) for hot water & steam only

- According to FDA, DM 21/03/73
- Versatility of use for a logistic benefit
- Burst Pressure Value 3:1 for water
- Burst Pressure Value 10:1 for steam

#### **Tolerances**

According to UNI EN ISO 1307 Refer to Technical Handbook on page TH34

#### For foodstuffs

Part Number			Working Pressure			Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH30240051/40	10	19	2.0	300.0	20	0.31	80	N
IH30240052/40	13	23	2.0	300.0	20	0.42	105	Υ
IH30240053/40	16	26	2.0	300.0	20	0.49	130	Ν
IH30240054/40	19	31	2.0	300.0	20	0.71	150	Υ
IH30240055/40	25	39	1.0	150.0	10	1.05	200	Ν

#### For hot water & steam

Part Number		S w	orking Pres	sure	Weight	min. Bend Radius	in Stock	
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH30240051/40	10	19	0.6	87.0	6	0.31	80	N
IH30240052/40	13	23	0.6	87.0	6	0.42	105	Υ
IH30240053/40	16	26	0.6	87.0	6	0.49	130	Ν
IH30240054/40	19	31	0.6	87.0	6	0.71	150	Υ
IH30240055/40	25	39	0.3	44.0	3	1.05	200	Ν

RUBBER HOSE DRINKPRESS 164 T FDA - D.M. 21/03/73 Parker MADE IN ITALY







## **GAMBRINUS UPE SM EN 12115**

#### According to EN 12115

Designed to handle all beverages such milk, mineral water, fruit juices, wine, liqueurs etc... as well as animal or vegetable fats and oils. It is also suitable for sanitary materials. UHMUPE tube does not leach into and contaminate the product conveyed. Suitable for suction and delivery.

#### Hose Construction

Tube: Smooth, white undercoat, ultra

> high molecular weight translucent polyethylene (UHMWPE), suitable

for foodstuff contact

Reinforcement: Synthetic textile fabrics with embed-

ded steel wire helix and copper wire

to allow electrical connection between hose and couplings

Cover: Blue, abrasion and weather

resistant EPDM rubber compound

### Temperature Range

-20 °C (-4 °F) to +100 °C (+212 °F) sterilization at 130 °C for short periods



- According to EN 12115 -FDA title21 - DM 21/03/73 -DM 220 26/04/93
- Compatibility with all liquid foodstuffs & outstanding performance in one solution
- Burst Pressure Value 4:1
- Vacuum: 0.8 bar max

#### Tolerances

According to EN 12115

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	I.D. (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH36242301/40	19	31	1.6	232.0	16	0.70	190	Ν
IH36242302/40	25	37	1.6	232.0	16	0.90	225	Υ
IH36242303/40	32	44	1.6	232.0	16	1.20	260	Υ
IH36242304/40	38	51	1.6	232.0	16	1.50	335	Υ
IH36242305/40	50	66	1.6	232.0	16	2.20	410	Υ
IH36242306/40	63.5	79	1.6	232.0	16	2.80	450	Ν
IH36242307/40	75	91	1.6	232.0	16	3.30	525	Ν
IH36242309/40	100	116	1.2	180.0	12	4.70	675	N







## **GAMBRINUS BLUE 10**

Designed to handle fatty foods, milk in a variety of transfer and delivery applications, including milk collection.

#### Hose Construction

Tube: White, smooth NBR rubber

> compound, non-toxic, odorless and taste-free. Manufactured on stainless steel mandrel for the maximum cleanliness, hygienic standards and a bacteria-free surface.

Reinforcement: Synthetic textile fabrics

Cover: Blue NBR rubber compound,

non- marking, abrasion and

weather-resistant

#### Temperature Range

-40 °C (-40 °F) to +80 °C (+176 °F) sterilization at 110 °C for max 30 min.



- According to FDA, BfR class 2, DM 21/03/73, EC 1935/2004
- Indoors and outdoors
- ADI free
- Burst Pressure Value 3:1

#### **Tolerances**

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH36242431/40	19	29	1.0	150.0	10	0.67	120	Υ
IH36242432/40	25	35	1.0	150.0	10	0.80	150	Υ
IH36242433/40	30	42	1.0	150.0	10	1.11	180	Ν
IH36242434/40	32	44	1.0	150.0	10	1.23	190	Υ
IH36242435/40	38	50	1.0	150.0	10	1.38	240	Υ
IH36242436/40	40	52	1.0	150.0	10	1.41	250	N
IH36242437/40	45	57	1.0	150.0	10	1.62	310	Ν
IH36242438/40	51	64	1.0	150.0	10	1.88	350	Υ
IH36242439/40	60	73	1.0	150.0	10	2.24	410	Ν
IH36242440/40	63.5	77	1.0	150.0	10	2.60	450	Ν
IH36242441/40	70	83	1.0	150.0	10	2.86	550	Ν
IH36242442/40	76	89	1.0	150.0	10	3.00	600	Ν
IH36242443/40	80	93	1.0	150.0	10	3.17	630	Ν
IH36242444/20	102	116	1.0	150.0	10	4.60	750	N









## **GAMBRINUS BLUE 10 SM**

Designed to handle fatty foods, milk in a variety of suction and delivery applications indoors and outdoors, including milk collection.

#### Hose Construction

Tube: White, smooth NBR rubber

compound, non-toxic, odorless

and taste-free.

Manufactured on stainless steel mandrel for the maximum cleanliness, hygienic standards and a

bacteria-free surface

Reinforcement: Synthetic textile fabrics and

embedded steel wire helix

Cover: Blue NBR rubber compound,

non-marking, abrasion and

weather-resistant.

#### Temperature Range

-40 °C (-40 °F) to +80 °C (+176 °F) sterilization at 110 °C for max 30 min.



- According to FDA, BfR class 2, DM 21/03/73, EC 1935/2004
- Excellent flexibility, kink resistance, easy handling
- ADI free
- Burst Pressure Value 3:1
- Vacuum: 0.9 bar

#### Tolerances

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36242401/40	19	29	1.0	150.0	10	0.67	38	Υ
IH36242402/40	25	35	1.0	150.0	10	0.80	50	Υ
IH36242403/40	30	42	1.0	150.0	10	1.11	60	Ν
IH36242404/40	32	44	1.0	150.0	10	1.23	64	Υ
IH36242405/40	38	50	1.0	150.0	10	1.38	76	Υ
IH36242406/40	40	52	1.0	150.0	10	1.41	80	Υ
IH36242407/40	45	57	1.0	150.0	10	1.62	90	Ν
IH36242408/40	51	64	1.0	150.0	10	1.88	102	Υ
IH36242409/40	60	73	1.0	150.0	10	2.24	150	Ν
IH36242410/40	63.5	77	1.0	150.0	10	2.60	160	Υ
IH36242411/40	65	79	1.0	150.0	10	2.66	170	Ν
IH36242412/40	70	83	1.0	150.0	10	2.86	180	Ν
IH36242413/40	76	89	1.0	150.0	10	3.00	190	Υ
IH36242414/40	80	93	1.0	150.0	10	3.17	250	Ν
IH36242415/20	102	116	1.0	150.0	10	4.60	380	Υ







## **GAMBRINUS RED 10**

Recommended for wine, beer, liqueurs, fruit juice and soft drinks in process, package and transfer phase. Ideal either fixed and mobile installation. Not suitable for fatty food.

#### Hose Construction

**Tube:** White, smooth EPDM rubber

compound, non-toxic, odorless

and taste-free.

Manufactured on stainless steel

mandrel for the maximum

cleanliness and hygienic standards

Reinforcement: Synthetic textile fabrics

**Cover:** Red EPDM rubber compound,

non-marking, abrasion and

weather-resistant

#### Temperature Range

-40 °C (-40 °F) to +120 °C (+248 °F) sterilization at 110 °C for max 30 min.



- According to FDA, BfR class 2, DM 21/03/73, EC 1935/2004
- Up to 96 % alcoholic content
- ADI free
- Crimped Stainless Steel Fittings available
- Burst Pressure Value 3:1

#### **Tolerances**

Part Number			Ş w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36242531/40	19	29	1.0	150.0	10	0.45	95	N
IH36242532/40	25	35	1.0	150.0	10	0.59	140	Ν
IH36242533/40	30	41	1.0	150.0	10	0.80	160	Ν
IH36242534/40	32	43	1.0	150.0	10	0.90	170	Ν
IH36242535/40	38	51	1.0	150.0	10	1.20	200	Ν
IH36242536/40	40	54	1.0	150.0	10	1.40	220	Ν
IH36242537/40	51	65	1.0	150.0	10	1.90	250	Ν
IH36242538/40	60	76	1.0	150.0	10	2.50	320	N
IH36242539/40	63.5	81	1.0	150.0	10	2.60	340	Ν







## **GAMBRINUS RED 10 SM**

Recommended for wine, beer, liqueurs, fruit juice and soft drinks in process, package and transfer phase. Ideal either fixed and mobile installation. Not suitable for fatty food. Designed for suction and delivery.

#### Hose Construction

**Tube:** White, smooth EPDM rubber

compound, non-toxic, odorless

and taste-free.

Manufactured on stainless steel

mandrel for the maximum

cleanliness and hygienic standards

Reinforcement: Synthetic textile fabrics and

embedded steel wire helix

**Cover:** Red EPDM rubber compound,

non-marking, abrasion and

weather-resistant

#### Temperature Range

-40 °C (-40 °F) to +120 °C (+248 °F) sterilization at 110 °C for max 30 min.



- According to FDA, BfR class 2, DM 21/03/73, EC 1935/2004
- Up to 96 % alcoholic content
- Excellent flexibility, kink resistance, easy handling
- ADI free
- Crimped Stainless Steel Fittings available
- Burst Pressure Value 3:1
- Vacuum: 0.9 bar

#### Tolerances

Part Number			Working Pressure			Weight	min. Bend Radius	in Stock
	I.D. (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH36242501/40	19	29	1.0	150.0	10	0.67	80	N
IH36242502/40	25	35	1.0	150.0	10	0.80	125	Ν
IH36242503/40	30	42	1.0	150.0	10	1.11	150	Ν
IH36242504/40	32	44	1.0	150.0	10	1.23	160	Ν
IH36242505/40	38	50	1.0	150.0	10	1.38	190	Υ
IH36242506/40	40	52	1.0	150.0	10	1.41	200	Ν
IH36242507/40	45	57	1.0	150.0	10	1.62	225	Ν
IH36242508/40	51	64	1.0	150.0	10	1.88	255	Υ
IH36242509/40	60	73	1.0	150.0	10	2.24	300	Ν
IH36242510/40	63.5	77	1.0	150.0	10	2.60	320	Υ
IH36242511/40	76	89	1.0	150.0	10	3.00	390	Υ
IH36242512/40	80	93	1.0	150.0	10	3.17	440	Ν
IH36242513/20	102	116	1.0	150.0	10	4.60	560	N







### **GAMBRINUS BLACK SM 10**

For abrasive dry food such as flour, sugar, grains, granules, pellets and animal food. Suitable for suction and delivery.

#### Hose Construction

Tube: White NR/SBR, non-toxic. Manu-

factured on polished stainless steel mandrel for an ultra-smooth, bacteria free tube that does not impart taste or odor and it is resistant to

abrasion

Reinforcement: Synthetic textile fabrics, embedded

steel wire helix to provide suction

capability and kink resistance

Cover: Black NR/SBR rubber compound,

antistatic (R<10 $^{6}$   $\Omega$ /m) resistant to abrasion and weather-resistant

#### Temperature Range

-40 °C (-40 °F) to +80 °C (+176 °F) sterilization at 110 °C for max 30 min.



- According to FDA, BfR class 2, DM 21/03/73, EC 1935/2004
- In-plant and tank transfer, delivery and transport
- Burst Pressure Value 3:1
- Vacuum: 0.9 bar

#### Tolerances

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	I.D. (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH36242203/40	51	65	1.0	150.0	10	1.92	300	Υ
IH36242204/40	60	75	1.0	150.0	10	2.30	360	Ν
IH36242205/40	63.5	79	1.0	150.0	10	2.43	380	Ν
IH36242206/40	70	86	1.0	150.0	10	2.80	420	Ν
IH36242207/40	76	92	1.0	150.0	10	3.25	450	Υ
IH36242208/40	80	96	1.0	150.0	10	3.45	480	Ν
IH36242209/20	102	118	1.0	150.0	10	4.80	610	Ν





## **VINITRESS**

For delivery of foodstuff in general industrial purposes and for agriculture applications.

#### Hose Construction

Flexible, transparent PVC hose having a textile reinforcement between the walls.

#### Temperature Range

-20 °C (-4 °F) TO +60 °C (140 °F) sterilization at 130 °C for short periods



- According to European Directive EC 90/128 Class A, B and C
- Low duty mission profile
- Transparent structure to visually monitor the passage of media
- Burst Pressure Value 3:1

#### Tolerances

Refer to Technical Handbook on page TH34

Part Number			Working Pressure			Weight	min. Bend Radius	in Stock
	I.D. (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH35033229/100	6	12	2.0	300.0	20	0.10	40	Υ
IH35033230/100	8	14	2.0	300.0	20	0.13	50	Υ
IH35033223/50	9	15	2.0	300.0	20	0.14	50	Υ
IH35033231/100	10	16	2.0	300.0	20	0.15	60	Υ
IH35033220/50	13	19	1.2	174.0	12	0.18	80	Υ
IH35033222/50	15	21	1.2	174.0	12	0.21	90	Υ
IH35033221/50	19	26	1.0	150.0	10	0.30	110	Υ
IH35033245/50	25	33	0.8	116.0	8	0.44	150	Υ
IH35033241/25	32	42	0.7	101.5	7	0.71	190	Ν
IH35033246/25	38	48	0.6	87.0	6	0.82	230	Ν
IH35033240/25	40	50	0.6	87.0	6	0.86	240	Ν
IH35033242/25	50	64	0.5	72.5	5	1.53	300	N

**VINITRESS 1 FOOD QUALITY - MADE IN ITALY - PARKER** 



## **APERSPIR**

Suitable for suction and delivery of foodstuff in general industrial purposes and for agriculture applications.

#### Hose Construction

Flexible and light hose having an harmonic steel wire helix embedded in a transparent PVC wall.

#### Temperature Range

-10 °C (+14 °F) to +60 °C (+140 °F)



- According to European Directive EC 90/128 Class A, B and C
- Medium and heavy duty mission profile
- Vacuum: 0.8 bar

#### **Tolerances**

Refer to Technical Handbook on page TH34

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	Wall (mm)	MPa	psi	bar	kg/m	mm	
IH35641010/30	10	3.1	1.2	174.0	12	0.18	23	N
IH35641012/30	12	3.1	1.5	217.5	15	0.19	20	Υ
IH35641016/50	16	3.1	1.5	217.5	15	0.26	30	Υ
IH35641019/50	19	3.5	1.2	174.0	12	0.33	40	Υ
IH35641020/50	20	3.5	1.2	174.0	12	0.34	40	Υ
IH35641025/50	25	4.2	1.1	159.5	11	0.52	50	Υ
IH35641030/50	30	4.2	1.0	150.0	10	0.63	60	Υ
IH35641032/50	32	4.5	0.95	137.75	9.5	0.66	60	Υ
IH35641038/50	38	4.5	0.8	116.0	8	0.80	80	Υ
IH35641040/50	40	5	0.8	116.0	8	0.95	80	Υ
IH35641045/50	45	5	0.75	108.75	7.5	1.15	90	Υ
IH35641050/50	50	5.4	0.7	101.5	7	1.30	100	Υ
IH35641060/50	60	6.1	0.6	87.0	6	1.75	120	Υ
IH35641075/50	75	7	0.45	65.25	4.5	2.30	150	Υ
IH35641100/30	100	8	0.3	43.5	3	3.65	200	Υ
IH35641120/30	120	8	0.2	29.0	2	4.30	240	Ν
IH35641125/30	125	8.3	0.2	29.0	2	4.60	250	Ν
IH35641150/20	150	9.5	0.2	29.0	2	6.50	300	Ν

APERSPIR I.D. mm. TOOD QUALITY - MADE IN ITALY - PARKER





## **ENOREX**

Suction and delivery of wine and liquid foodstuffs in cellars, stores and docks for loading and unloading tankers and storage tankers.

#### Hose Construction

Flexible and light hose having a red, rigid PVC spiral embedded in transparent PVC wall, manufactured with materials according to 2007/19/EC European Standard for foods, and 2002/95/EC European standard RoHS.

#### Temperature Range

-25 °C (-13 °F) to +60 °C (+140 °F)



- According to EC 1935/2004 Class A, B and C
- Heavy duty mission profile
- Vacuum: 0.9 bar
- Burst Pressure Value 3:1

#### **Tolerances**

Refer to Technical Handbook on page TH34

Part Number			Ş w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	I.D. (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH35620025/50	25	34	1.0	150.0	10	0.55	125	N
IH35620030/50	30	40	1.0	150.0	10	0.65	150	Ν
IH35620040/50	40	50	0.9	130.5	9	0.85	200	Υ
IH35620050/50	50	62	0.8	116.0	8	1.20	250	Υ
IH35620060/50	60	72	0.75	108.8	7.5	1.60	360	Υ
IH35620080/50	80	94	0.65	94.25	6.5	2.20	520	Υ
IH35620100/25	100	116	0.5	72.5	5	3.36	650	Ν
IH35620120/25	120	138	0.3	43.5	3	4.20	780	Ν

ENOREX I.D. mm. 🖾 FOOD QUALITY - MADE IN ITALY - PARKER



### TE POTABLE WATER PU HOSE

Used in mobile applications to transfer large volumes of drinking water from tank trucks to major public events or work sites, as well as emergency water supply lines to bypass water mains where service has been curtailed due to construction.

#### Hose Construction

Polyurethane extruded through one woven polyester ply of reinforcement.

#### Temperature Range

-40 °C (-40 °F) to +80 °C (+176 °F)



- Has been fully tested to prove compatibility with potable water, including taste and odour
- Much easier to couple, install and remove than polyethylene pipe
- High performing polymer preserve from fluid contamination.
- In compliance with Drinking Water Inspectorate (DWI), Polish National Institute of Public Health, Water Regulations Advisory Scheme (WRAS) and USA NSF 61
- Burst Pressure Value 2:1

Part Number		lominal Diameter		Working Pressure		Weight	min. Bend Radius	in Stock	
	(mm)	(inch)	Wall (mm)	MPa	psi	bar	kg/m	mm	
TE15X200MBPW	32	1½	2.15	3.1	450.0	31	0.331	-	Ν
TE20X200MBPW	51	2	2.30	3.1	450.0	31	0.408	_	Ν
TE25X200MBPW	63.5	2 ½	2.30	3.1	450.0	31	0.580	_	Ν
TE40X200MBPW	102	4	3.30	1.8	270.0	18	1.137	_	Ν
TE60X200MBPW	152	6	3.05	2.0	300.0	20	1.717	_	Ν







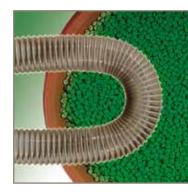


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Ducting







## J – Ducting

Hose	ID Range (mm)	Temp. Range (°C)	Application
ASPIREX	20 - 250	-15 / +60	suction equipment
ASPIREX 140 °C	40 - 150	-40 / +140	suction equipment
ASPIREX PU/ANC	38 - 100	-25 / +85	suction equipment



Tube	Reinforce- ment	Cover	WP (bar)	Safety factor	Suction	Industry standard	Page
PVC	PVC wire	PVC	-	-	yes		J4
SANTO- PRENE	steel wire		-	-	yes		J5
PU	PVC and copper wire		-	-	yes		J6



J3



## **ASPIREX**

Suitable for suction of air, dust, fumes, saw-dust and wood-shavings. Also suitable for centralized suction equipment in wood, textile, china and welding equipment. It is also suitable for use on agricultural machinery.

#### Hose Construction

Flexible hose having a grey, rigid PVC spiral embedded in a metalized grey, flexible PVC wall. Externally corrugated, smooth inner surface. Self-extinguishing according to UL 94 Class V2.

#### Temperature Range

-15 °C (+5 °F) to +60 °C (+140 °F)



- Self-extinguishing hose
- General purpose hose
- Not to be used under pressure
- Vacuum 0.75 bar for ID up to 50 mm then 0.40 bar

#### **Tolerances**

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	I.D. (mm)	Wall (mm)	MPa	psi	bar	kg/m	mm	
IH35560020/50	20	2.6	_	_	_	0.14	20	Υ
IH35560025/50	25	2.9	-	-	-	0.18	25	Υ
IH35562032/50	32	3.3	-	_	-	0.27	32	Υ
IH35560040/50	40	3.9	-	_	-	0.36	40	Υ
IH35560050/50	50	4.2	_	_	-	0.52	50	Υ
IH35560060/50	60	4.4	-	_	-	0.64	60	Υ
IH35560070/50	70	4.8	_	_	-	0.76	70	Υ
IH35560080/50	80	5.0	-	_	-	0.97	80	Υ
IH35560100/30	100	5.3	_	_	_	1.27	100	Υ
IH35560120/30	120	5.6	-	_	-	1.58	120	Υ
IH35560150/30	150	5.9	_	_	_	2.15	150	Υ
IH35562160/30	160	6.1	-	_	-	2.28	160	Ν
IH35560200/15	200	7.0	_	_	_	2.95	200	Υ
IH35560250/15	250	8.0	-	_	-	4.00	250	Ν





## **ASPIREX 140°**

Suction hose for: air, smoke, vapours, exhaust gas, dust, chips, grains, pellets.

Good resistance to acids and lyes, resistant also to polychloroprene (CR), against hydrocarbons, oils. Very good resistance also to abrasion, atmospheric and ageing conditions. Oil resistant as per ASTM D 2000.

Recommendation: the hose has to be used in static conditions and not in dynamic conditions.

#### Hose Construction

Black hose in Santoprene with an integrated steel spiral.

#### Temperature Range

-25 °C (-13 °F) to +125 °C (+257 °F), With peaks up to +140 °C (+284 °F) for a short period



- Multiple media suction hose
- Oil resistant according ASTM D 2000
- Designed for high temperature application
- Not to be used under pressure
- Vacuum 0.3 bar for ID up to 50 mm then 0.25 bar

#### **Tolerances**

Part Number			Working Pressure			Weight	min. Bend Radius	in Stock
	I.D. (mm)	Wall (mm)	MPa	psi	bar	kg/m	mm	
IH35579040/30	40	46	_	_	_	0.20	46	N
IH35579050/30	50	56	-	-	-	0.28	56	Ν
IH35579063/30	63	69	_	-	-	0.34	69	Ν
IH35579080/30	80	87	-	-	-	0.48	87	Ν
IH35579090/30	90	97	_	-	-	0.52	97	Ν
IH35579100/30	100	107	-	-	-	0.66	107	Ν
IH35579110/30	110	117	_	_	_	0.72	117	Ν
IH35579125/30	125	132	_	-	-	0.80	132	Ν
IH35579150/30	150	157		_		1.10	157	Ν





## **ASPIREX PU/ANC**

Suitable for suction of warm air, abrasion dust, warm fumes, saw-dust, wood-shavings, cement, cereal grains, sugar, and other granules.

#### Hose Construction

PU transparent and antistatic hose having a grey, rigid PVC spiral, resistant to crush, abrasion and ozone, with antistatic 9 wires copper cord. Food and beverage – The polyurethane used is in conformity to:

- F.D.A. CFR 21 parts 175, 105, 177, 1680, 177, 2600;
- CEE 82/711, 85/572, 89/109, 90/128, 92/30, 93/8, 95/3, 98/11

#### Temperature Range

-25 °C (-13 °F) to +85 °C (+185 °F)



- In conformity with FDA title 21 and multiple EC specs
- Strong abrasion resistance
- Not to be used under pressure
- Vacuum 0.5 bar for ID up to 32 mm then 0.40 bar

#### **Tolerances**

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	Wall (mm)	MPa	psi	bar	kg/m	mm	
IH35576038/20	38	44.6	_	_	_	0.23	45	N
IH35576050/20	50	57.0	-	-	-	0.31	57	Υ
IH35576060/20	60	67.4	_	-	_	0.39	67	Υ
IH35576080/20	80	89.0	_	-	_	0.61	89	Υ
IH35576102/20	102	112.4	_	_	_	0.84	112	Υ

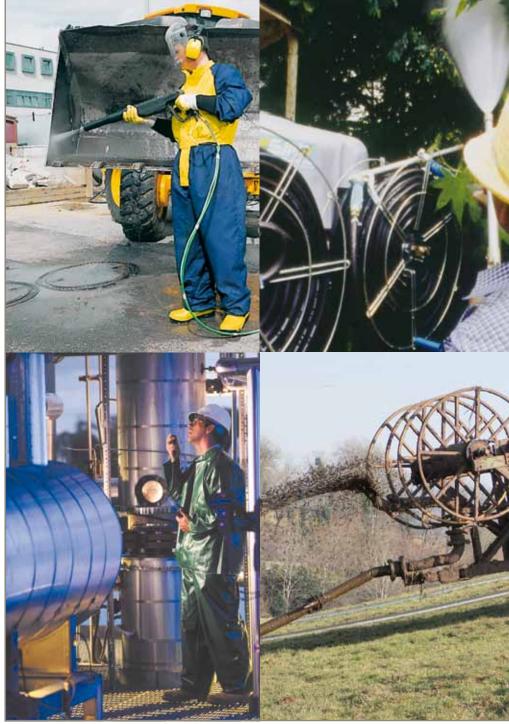




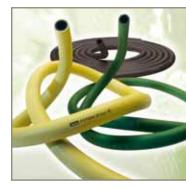


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## Multipurpose







## K – Multipurpose

ID Range (mm)	Temp. Range (°C)	Application
5 - 38	-40 / +100	compressed air, non aggressive liquids
6.5 - 38	-40 / +100	compressed air, non aggressive liquids
6.5 - 25	-40 / +100	compressed air, non aggressive liquids
10 - 50	-40 / +120	multipurpose
10 - 50	-40 / +120	multipurpose
6 - 100	-40 / +120	multipurpose
13 - 25	-40 / +120	multipurpose
13 - 75	-34 / +120	high flexible hose for multipurpose
6 - 25	-30 / +100	multipurpose
6 - 25	-30 / +100	multipurpose
9.5 - 38	-57 / +100	low temperature multipurpose
6.5 - 19	-40 / +100	multipurpose
8 - 19	-15 / +60	agricultural spray
8 - 13	-15 / +60	agricultural spray
8 - 13	-15 / +60	agricultural spray
32 - 51	-40 / +80	multipurpose
90 - 125	-40 / +80	slurry transfert
	Range (mm)  5 - 38  6.5 - 38  6.5 - 25  10 - 50  10 - 50  6 - 100  13 - 25  13 - 75  6 - 25  9.5 - 38  6.5 - 19  8 - 19  8 - 13  8 - 13  32 - 51	Range (mm)       Range (°C)         5 - 38       -40 / +100         6.5 - 38       -40 / +100         6.5 - 25       -40 / +120         10 - 50       -40 / +120         6 - 100       -40 / +120         13 - 25       -40 / +120         13 - 75       -34 / +120         6 - 25       -30 / +100         6 - 25       -30 / +100         9.5 - 38       -57 / +100         8 - 19       -40 / +100         8 - 19       -15 / +60         8 - 13       -15 / +60         32 - 51       -40 / +80



Tube	Reinforce- ment	Cover	WP (bar)	Safety factor	Suction	Industry standard	Page
EPDM	textile	EPDM	15	4			K4
EPDM	textile	EPDM	15	4			K5
EPDM	textile	EPDM	20	4			K6
EPDM	textile	EPDM	20	3			<b>K</b> 7
EPDM	textile	EPDM	20	3			K8
EPDM	textile	EPDM	30	3			<b>K</b> 9
EPDM	textile	EPDM	20	3			K10
CR	textile	CR	5	4	yes		K11
NBR	textile	CR	20	3			K12
NBR	textile	CR	30	3			K12
NBR	textile + copper wires	CR	20	4			K13
NBR	texitle	CR	20	4		MSHA approved	K14
PVC	textile	PVC	20	4			K15
PVC	textile	PVC	40	3			K15
PVC	textile	PVC	80	2.5			K15
PU	textile + copper wires	PU	20	2			K16
PU	textile	PU	10	3			K17



# **GST II BLACK 15**

# Parker Global Product

In agriculture, construction, air tool lubricant systems and general industrial for air (including oil mist), mild chemicals and water. Suitable for MRO and OEM channel. Not to be used with oil or refined fuel.

## Hose Construction

Tube: Black EPDM, antistatic rubber

compound

**Reinforcement:** Synthetic textile yarns.

Cover: Black, smooth EPDM rubber com-

pound resistant to abrasion, heat

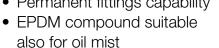
and ozone

# Temperature Range

-40 °C (-40 °F) to +100 °C (+212 °F)



- Nitrosamine free
- Permanent fittings capability



• Burst Pressure Value 4:1



### **Tolerances**

According to UNI EN ISO 1307 Refer to Technical Handbook on page TH34

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH709319200/40	5	11	1.5	200.0	15	0.10	40	Ν
IH709325200/100	6.5	13	1.5	200.0	15	0.13	50	Υ
IH709325200/40	6.5	13	1.5	200.0	15	0.13	50	Υ
IH709331200/100	8	15	1.5	200.0	15	0.16	65	Υ
IH709331200/40	8	15	1.5	200.0	15	0.16	65	Υ
IH709338200/100	9.5	17	1.5	200.0	15	0.20	75	Υ
IH709338200/40	9.5	17	1.5	200.0	15	0.20	75	Υ
IH709350200/100	13	21	1.5	200.0	15	0.29	105	Υ
IH709350200/40	13	21	1.5	200.0	15	0.29	105	Υ
IH709363200/100	16	25	1.5	200.0	15	0.36	130	Υ
IH709363200/40	16	25	1.5	200.0	15	0.36	130	Υ
IH709375200/40	19	28	1.5	200.0	15	0.49	150	Υ
IH7093100200/40	25	36	1.5	200.0	15	0.69	200	Υ
IH7093125204/40	32	45	1.5	200.0	15	1.15	230	Υ
IH7093150204/40	38	52	1.5	200.0	15	2.76	250	Υ

Parker SERIES 7093 GST® II ... ID (..mm) 200 PSI (15 bar) MAX WP



# **GST II RED 15**

## Parker Global Product

In agriculture, construction, air tool lubricant systems and general industrial for air (including oil mist), mild chemicals and water. Suitable for MRO and OEM channel. Not to be used with oil or refined fuel..

## Hose Construction

Black EPDM, antistatic rubber com-Tube:

pound.

Reinforcement: Synthetic textile yarns

Cover: Red, smooth EPDM insulating rub-

ber compound resistant to abra-

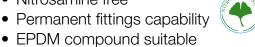
sion, heat and ozone

# Temperature Range

-40 °C (-40 °F) to +100 °C (+212 °F)



- Nitrosamine free
- Permanent fittings capability



also for oil mist • Burst Pressure Value 4:1

# Tolerances

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH709225200/40	6.5	13	1.5	200.0	15	0.13	50	N
IH709231200/40	8	15	1.5	200.0	15	0.16	65	Ν
IH709238200/40	9.5	17	1.5	200.0	15	0.20	75	Ν
IH709250200/40	13	21	1.5	200.0	15	0.29	105	Υ
IH709263200/40	16	25	1.5	200.0	15	0.36	130	Υ
IH709275200/40	19	28	1.5	200.0	15	0.49	150	Υ
IH7092100200/40	25	36	1.5	200.0	15	0.69	200	Υ
IH7092125204/40	32	45	1.5	200.0	15	1.15	230	Ν
IH7092150204/40	38	52	1.5	200.0	15	2.76	250	Ν





# **GST II BLACK 20**

## Parker Global Product

Designed for compressed air with traces of oil in industrial application. Also suitable in agriculture, construction, and general industry for water, mild chemicals and non aggressive fluids. Not to be used with oil or refined fuel.

## Hose Construction

Tube: Black EPDM, antistatic rubber com-

pound.

**Reinforcement:** Synthetic textile yarns.

Cover: Black, smooth EPDM rubber com-

pound resistant to abrasion, heat

and ozone

# Temperature Range

-40 °C (-40 °F) to +100 °C (+212 °F)



- Nitrosamine free
- Permanent fittings capability



- also for oil mist All sizes on stock
- Burst Pressure Value 4:1

### **Tolerances**

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	I.D. (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH709325300/100	6.5	14	2.0	300.0	20	0.16	50	Υ
IH709331300/100	8	16	2.0	300.0	20	0.20	65	Υ
IH709338300/100	9.5	17.5	2.0	300.0	20	0.23	75	Υ
IH709350304/100	13	22	2.0	300.0	20	0.36	105	Υ
IH709363304/100	16	27	2.0	300.0	20	0.52	130	Υ
IH709375304/40	19	29.5	2.0	300.0	20	0.56	150	Υ
IH7093100304/40	25	36.5	2.0	300.0	20	0.75	200	Υ



# **PYTHON N/L 20**

Designed for air, cold and hot water and light-chemical media. Major properties of PYTHON hoses are:

- high ozone resistance
- antistatic resistance
- high temperature resistance
- low temperature resistance
- non-staining cover
- high flexibility

### Hose Construction

**Tube:** Black, antistatic (R<10 $^6$   $\Omega/m$ ),

smooth EPDM nitrosamine free rubber compound, resistant to light-

chemical media

Reinforcement: Synthetic textile yarns

Cover: Black, antistatic (R<10 $^6$   $\Omega/m$ ),

smooth EPDM nitrosamine free

rubber compound



- Antistatic tube and cover suitable for Atex applications
- Unmatchable handiness
- Wide range temperature
- Its versatility of use helps to keep a controlled stock
- Nitrosamine free
- Burst Pressure Value 3:1



# Temperature Range

-40 °C (-40 °F) to +120 °C (+248 °F) with peaks to +140 °C (+284 °F)

## **Tolerances**

I.D. ≤ 25 mm according to UNI EN ISO 1307 I.D. > 25 mm according to RMA steel mandrel Refer to Technical Handbook on page TH34

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH30351270/40	10	17	2.0	300.0	20	0.22	60	Υ
IH30351271/40	13	20	2.0	300.0	20	0.26	80	Υ
IH30351272/40	15	22	2.0	300.0	20	0.29	90	Υ
IH30351273/40	19	27	2.0	300.0	20	0.41	110	Υ
IH30351274/40	25	34	2.0	300.0	20	0.60	150	Υ
IH36351270/40	32	44	2.0	300.0	20	0.98	320	Υ
IH36351271/40	38	51	2.0	300.0	20	1.20	380	Υ
IH36351272/40	50	66	2.0	300.0	20	1.76	500	Υ



# **PYTHON NV/L 20**

Designed for air, cold and hot water and light-chemical media. Major properties of PYTHON hoses are:

- high ozone resistance
- antistatic resistance
- high temperature resistance
- low temperature resistance
- non-staining cover
- high flexibility

### Hose Construction

**Tube:** Black, antistatic, smooth EPDM

nitrosamine free rubber compound,

resistant to light-chemical media

**Reinforcement:** Synthetic textile yarns **Cover:** Green, smooth EPDM

nitrosamine free rubber compound

# Temperature Range

-40 °C (-40 °F) to +120 °C (+248 °F) with peaks to +140 °C (+284 °F)



- Unmatchable handiness
- Its versatility of use helps to keep a controlled stock
- Wide range temperature
- Nitrosamine free
- Burst Pressure Value 3:1



### Tolerances

I.D. ≤ 25 mm according to UNI EN ISO 1307 I.D. > 25 mm according to RMA steel mandrel Refer to Technical Handbook on page TH34

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH30351200/40	10	17	2.0	300.0	20	0.22	60	Υ
IH30351201/40	13	20	2.0	300.0	20	0.26	80	Υ
IH30351202/40	15	22	2.0	300.0	20	0.29	90	Υ
IH30351203/40	19	27	2.0	300.0	20	0.41	110	Υ
IH30351204/40	25	34	2.0	300.0	20	0.60	150	Υ
IH36351201/40	32	44	2.0	300.0	20	0.98	320	Υ
IH36351202/40	38	51	2.0	300.0	20	1.20	380	Υ
IH36351203/40	42	56	2.0	300.0	20	1.42	420	Υ
IH36351204/40	50	66	2.0	300.0	20	1.76	500	Υ



# **PYTHON NY/L 30**

Designed for air, cold and hot water and light-chemical media. Major properties of PYTHON hoses are:

- high ozone resistance
- antistatic resistance
- high temperature resistance
- low temperature resistance
- non-staining cover
- high flexibility

## Hose Construction

**Tube:** Black, antistatic, smooth EPDM

nitrosamine free rubber compound, resistant to light-chemical media

**Reinforcement:** Synthetic textile yarns **Cover:** Yellow, smooth EPDM

nitrosamine free rubber compound

# Temperature Range

-40 °C (-40 °F) to +120 °C (+248 °F) with peaks to +140 °C (+284 °F)



- Unmatchable handiness
- Its versatility of use helps to keep a controlled stock
- Wide range temperature
- Nitrosamine free
- Burst Pressure Value 3:1



## Tolerances

I.D.  $\leq$  25 mm according to UNI EN ISO 1307 I.D. > 25 mm according to RMA steel mandrel Refer to Technical Handbook on page TH34

Part Number			S we	orking Pres	sure	Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH30351250/40	6	14	3.0	450.0	30	0.18	40	Υ
IH30351251/40	8	17	3.0	450.0	30	0.25	50	Υ
IH30351252/40	10	20	3.0	450.0	30	0.34	60	Υ
IH30351253/40	13	23	3.0	450.0	30	0.40	80	Υ
IH30351254/40	16	27	3.0	450.0	30	0.52	100	Υ
IH30351255/40	19	30	3.0	450.0	30	0.60	110	Υ
IH30351256/40	25	37	3.0	450.0	30	0.88	150	Υ
IH36351250/40	32	44	3.0	450.0	30	0.95	320	Υ
IH36351251/40	38	51	3.0	450.0	30	1.20	380	Υ
IH36351252/40	42	56	3.0	450.0	30	1.45	420	Ν
IH36351253/40	50	66	3.0	450.0	30	1.93	500	Υ
IH36351254/20	65	82	3.0	450.0	30	2.50	650	Ν
IH36351255/20	75	91	3.0	450.0	30	3.08	750	Υ
IH36351256/20	100	122	3.0	450.0	30	5.05	1000	N



# **JUMBO**

Suitable for the discharge of hot and cold water, air and light-chemical media in many industrial and agricultural applications.

## Hose Construction

Tube: Black, smooth EPDM nitrosamine

free rubber compound

Reinforcement: Synthetic textile yarns

**Cover:** Black, smooth EPDM nitrosamine

free rubber compound with three red, longitudinal and different

stripes, resistant to abrasion, heat

and weathering

# Temperature Range

-40 °C (-40 °F) to +120 °C (+248 °F)



- Agriculture, construction and general industrial
- Long lasting embossed type branding
- Three red strips for easy hose identification
- Nitrosamine free
- Burst Pressure Value 3:1



### **Tolerances**

Part Number			wo	orking Pres	sure	Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH30116500/40	13	19	2.0	300.0	20	0.21	75	Υ
IH30116501/40	15	22	2.0	300.0	20	0.28	90	Υ
IH30116502/40	19	27	2.0	300.0	20	0.40	110	Υ
IH30116504/40	25	34	2.0	300.0	20	0.57	150	Υ



# E-Z FORM MP

#### Parker Global Product

Suitable for biodiesel, diesel, ethanol and gasoline in oil suction/return lines, vehicle fuel fill connector lines, drain lines on buses, cranes, mobile off-road equipment. Extremely flexible and lightweight it reduces installation times, eliminates special design, tooling and fabrication cost. Capable of being routed though confined spaces where preshaped and formed hose are normally required. Do not use for fuel dispensing or drag across sharp edges or very abrasive surfaces.

#### Hose Construction

Tube: Black CR, antistatic rubber com-

pound

**Reinforcement:** Multiple textile plies with wire helix

Cover: Black, Greek corrugated CR rub-

ber compound resistant to oil and

43

49

63

76.5

90

0.5

0.5

0.5

0.5

0.5

weathering

32

38

51

63.5

76

# Temperature Range

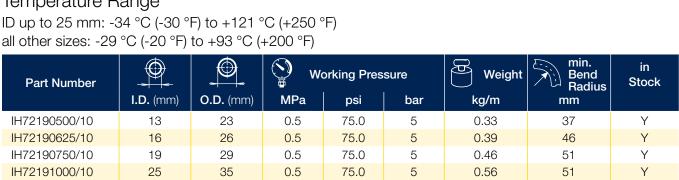
IH72191250/10

IH72191500/10

IH72192000/10

IH72192500/10

IH72193000/10



75.0

75.0

75.0

75.0

75.0

5

5

5

5

5

0.75

0.85

1.44

1.74

2.23

79

99

150

221

270



- Saves time and costs thanks to easy and quick assembly
- Superior kink resistance, minimal force to bend, outstanding flexibility
- Permanent fittings capability
- Burst Pressure Value 4:1
- Vacuum: 0.9 bar

# **Tolerances**

According to UNI EN ISO 1307 Refer to Technical Handbook on page TH34



Υ

Υ

# **OILPRESS N/L 20 - 30**

Suitable for multi-purpose applications requiring transfer of many types of fluids and for petroleum products with aromatic content not exceeding 50 %.

# Hose Construction

Tube: Smooth, black, oil and fuel resistant

> NBR rubber compound, suitable for petroleum products with aromatic content not exceeding 50 %

**Reinforcement:** Synthetic textile yarns

Smooth, black, self-extinguishing, Cover:

> antistatic (R < 1 M $\Omega$ /m) heat, oil, abrasion and weather resistant CR

rubber compound

# Temperature Range

-30 °C (-22 °F) to +100 °C (+212 °F), with peaks up to +120 °C (+248 °F) for oil



- Agriculture, construction and general industrial
- Suitable for many different fuels included Biodiesel B100
- Two different Working Pressure lines
- Wide range temperature
- Burst Pressure Value 3:1

### **Tolerances**

According to UNI EN ISO 1307 Refer to Technical Handbook on page TH34

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
OILPRESS N/L 20	-							
IH30832000/40	6	12	2.0	300.0	20	0.12	25	Υ
IH30832001/40	8	14	2.0	300.0	20	0.15	35	Υ
IH30832002/40	10	17	2.0	300.0	20	0.21	40	Υ
IH30832003/40	13	20	2.0	300.0	20	0.26	55	Υ
IH30832004/40	16	23	2.0	300.0	20	0.31	65	Υ
IH30832005/40	19	28	2.0	300.0	20	0.47	80	Υ
IH30832006/40	25	36	2.0	300.0	20	0.74	100	Υ
OILPRESS N/L 30								
IH30832031/40	6	14	3.0	450.0	30	0.18	25	Ν
IH30832032/40	8	16	3.0	450.0	30	0.21	30	Υ
IH30832038/40	9	17	3.0	450.0	30	0.24	35	Ν
IH30832033/40	10	18	3.0	450.0	30	0.25	40	Υ
IH30832034/40	13	23	3.0	450.0	30	0.40	55	Υ
IH30832035/40	16	27	3.0	450.0	30	0.47	65	N
IH30832036/40	19	30	3.0	450.0	30	0.60	80	N
IH30832037/40	25	37	3.0	450.0	30	0.83	100	N



RUBBER HOSE OILPRESS W.P. bar R<1M $\Omega$  MADE IN ITALY Parker



# **ARCTIC-EDGE**

#### Parker Global Product

Recommended suitable for air, mild chemicals, water, oil, biodiesel, diesel, ethanol and gasoline to be used in refrigerated applications and cold weather conditions. For agriculture, construction and general industrial. Do not use for fuel dispensing.

### Hose Construction

Tube: Black NBR rubber compound. **Reinforcement:** Multiple textile plies with static wire

Black, smooth CR rubber Cover:

compound resistant to oil and

weathering

# Temperature Range

-57 °C (-70 °F) to +100 °C (+212 °F)



- High flexibility and kink resistance at extreme low temperatures
- Conductive hose with copper wire
- Cover incorporates a longitudinal blue stripe for easy identification
- Burst Pressure Value 4:1

# Tolerances

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	I.D. (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH710238304/40	9.5	19	2.0	300.0	20	0.10	96	N
IH710250304/40	13	23	2.0	300.0	20	0.13	127	Ν
IH710275304/40	19	29.5	2.0	300.0	20	0.17	152	Υ
IH7102100304/40	25	37	2.0	300.0	20	0.24	203	Υ
IH7102125304/40	32	46	2.0	300.0	20	0.38	228	Υ
IH7102138304/40	35	49	2.0	300.0	20	0.40	241	Ν
IH7102150304/40	38	51.5	2.0	300.0	20	0.42	254	Υ





# **JIFFY**

## Parker Global Product

Suitable for air, mild chemicals, oil, water, biodiesel, diesel, ethanol and gasoline to be used in air operated paint systems, air tools, transfer lines, vacuum lines. For agriculture, construction and general industrial. Do not use in pulsing applications, airbrake systems or vehicle fuel systems. Push-on couplings do not require bands, clamps or special tools for installation.

## Hose Construction

Tube: Black NBR rubber compound,

silicone free

Reinforcement: One textile braid

Cover: Black, smooth CR rubber

compound MSHA

# Temperature Range

-40 °C (-40 °F) to +100 °C (+212 °F)



- Reattachable coupling Parker Series 82 Push-Lok®
- Kink resistant and superior coupling retention
- Flame resistant cover meets MSHA requirements
- Burst Pressure Value 4:1

### **Tolerances**

Part Number			Working Pressure Weight				min. Bend Radius	in Stock
	<b>I.D.</b> (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
IH7212251BK/40	6.5	12.5	2.0	300.0	20	0.13	76	Υ
IH7212381BK/40	9.5	16	2.0	300.0	20	0.16	76	Υ
IH7212501BK/40	13	19	2.0	300.0	20	0.23	127	Υ
IH7212631BK/40	16	23	2.0	300.0	20	0.33	152	Υ
IH7212751BK/40	19	28	2.0	300.0	20	0.46	178	Υ



# **APERFRUT 20 - 40 - 80**

For delivery of air, water and all fungicide products. Particularly suitable for spraying in agriculture. Resistant to compressor oil-mist.

## Hose Construction

Tube: Black, smooth, PVC compound

Reinforcement: Synthetic textile yarns

**Cover:** Orange (20), red (40) and blue (80),

smooth, abrasion, and weatherresistant PVC compound

## Temperature Range

-15 °C (+5 °F) to +60 °C (+140 °F)



- Colored cover to distinguish WP level
- Multiple fluids for various industrial applications
- Burst Pressure Value3:1 for 20 and 40 bar
- Burst Pressure Value
   2.5:1 for 80 bar

### Tolerances

Refer to Technical Handbook on page TH34

Part Number			S w	orking Pres	sure	Weight	min. Bend Radius	in Stock
	I.D. (mm)	<b>O.D.</b> (mm)	MPa	psi	bar	kg/m	mm	
APERFRUT 20								
IH35040010/100	8	13	2.0	300.0	20	0.11	30	Υ
IH35040012/100	10	15	2.0	300.0	20	0.14	55	Υ
IH35040014/100	13	19	2.0	300.0	20	0.20	85	Υ
IH35040015/100	16	23	2.0	300.0	20	0.29	90	Ν
IH35040016/100	19	26.5	2.0	300.0	20	0.33	100	Υ
APERFRUT 40								
IH35040260/100	8	14	4.0	600.0	40	0.14	30	Υ
IH35040261/100	10	16	4.0	600.0	40	0.17	50	Υ
IH35040114/100	13	21	4.0	600.0	40	0.29	80	Υ
APERFRUT 80								
IH35040268/100	8	15	8.0	1200.0	80	0.17	25	Υ
IH35040270/100	10	18	8.0	1200.0	80	0.23	45	Υ
IH35040214/100	13	23	7.0	1015.0	70	0.38	60	Υ





# TE AS ANTISTATIC PU HOSE

Discharge and transfer hose for fluids that develop electrical charges when flowing through the hose. Also suitable for petrol, gasoline and fuels with an aromatic content not exceeding 30 % (at room temperature).

## Hose Construction

Polyurethane extruded through one woven polyester ply of reinforcement and dual antistatic wires

# Temperature Range

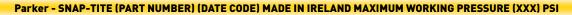
-40 °C (-40 °F) to +80 °C (+176 °F)



- The bright yellow cover provides immediate identification
- Much easier to couple, install and remove than polyethylene pipe
- High performing polymer preserve from fluid contamination
- Burst Pressure Value 2:1

Part Number	Nominal Diameter			Working Pressure			Weight	min. Bend Radius	in Stock
	(mm)	(inch)	Wall (mm)	MPa	psi	bar	kg/m	mm	
TE15X250MYAS	32	1 ½	2.15	2.7	400.0	27	0.33	_	Ν
TE20X250MYAS	51	2	2.30	3.1	450.0	31	0.41	_	Ν









# **TS SLURRY PU HOSE**

TS is a heavy duty slurry discharge and transfer hose. The hose construction features a thick wall for additional abrasion resistance and durability in rugged slurry transfer applications.

#### Hose Construction

Polyurethane extruded through one woven polyester ply of reinforcement

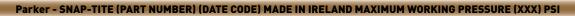
Temperature Range -40 °C (-40 °F) to +80 °C (+176 °F)



- Higher wall thickness to achieve longer rubbing resistance
- Much easier to couple, install and remove than polyethylene pipe
- Excellent resistance to internal and external abrasion
- Burst Pressure Value 3:1

Part Number	Nominal Diameter			Working Pressure			Weight	min. Bend Radius	in Stock
	(mm)	(inch)	Wall (mm)	MPa	psi	bar	kg/m	mm	
TS35X300MN	90	3 ½	3.80	1.7	250.0	17	1.19	-	Ν
TS40X300MN	102	4	3.80	1.7	250.0	17	1.33	_	Ν
TS50X300MN	127	5	3.80	1.7	250.0	17	1.59	_	Ν







# Parker's Motion & Control Technologies

At Parker, we're guided by a relentless drive to help our customers become more productive and achieve higher levels of profitability by engineering the best systems for their requirements. It means looking at customer applications from many angles to find new ways to create value. Whatever the motion and control technology need, Parker has the experience, breadth of product and global reach to consistently deliver. No company knows more about motion and control technology than Parker. For further information call free on 00800 27 27 5374.



#### **AEROSPACE**

#### **Key Markets**

- Aircraft engines
- Business & general aviation
- Commercial transports
- Land-based weapons systems
- Military aircraft
- Missiles & launch vehicles
- Regional transports
- Unmanned aerial vehicles

#### **Key Products**

- Flight control systems
   & components
- Fluid conveyance systems
- Fluid metering delivery & atomization devices
- Fuel systems & components
- Hydraulic systems & components
- Inert nitrogen generating systems
- Pneumatic systems & components
- Wheels & brakes



#### **CLIMATE CONTROL**

#### **Key Markets**

- Agriculture
- Air conditioning
- Food, beverage & dairy
- Life sciences & medical
- Precision cooling
- Processing
- Transportation

#### **Key Products**

- CO<sup>2</sup> controls
- Electronic controllers
- Filter driers
- Hand shut-off valves
- Hose & fittings
- Pressure regulating valves
- Refrigerant distributors
- Safety relief valves
- Solenoid valves
- Thermostatic expansion valves



#### **HYDRAULICS**

#### **Key Markets**

- Aerospace
- Aerial lift
- Agriculture
- Construction machinery
- Forestry
- Industrial machinery
- Mining
- Oil & gas
- Power generation & energy
- Truck hydraulics

#### **Key Products**

- Diagnostic equipment
- Hydraulic cylinders
   & accumulators
- Hydraulic motors & pumps
- Hydraulic systems
- Hydraulic valves & controls
- Power take-offs
- Rubber & thermoplastic hose & couplings
- Tube fittings & adapters
- Quick disconnects



#### **PNEUMATICS**

#### **Key Markets**

- Aerospace
- Conveyor & material handling
- Factory automation
- Life science & medical
- Machine tools
- Packaging machinery
- Transportation & automotive

#### **Key Products**

- Air preparation
- Brass fittings & valves
- Manifolds
- Pneumatic accessories
- Pneumatic actuators & grippers
- Pneumatic valves & controls
- · Quick disconnects
- Rotary actuators
- Rubber & thermoplastic hose & couplings
- Structural extrusions
- Thermoplastic tubing & fittings
- Vacuum generators, cups & sensors





#### PROCESS CONTROL

#### **Key Markets**

- Chemical & refining
- Food, beverage & dairy
- Medical & dental
- Microelectronics
- Oil & gas
- Power generation

#### **Key Products**

- Analytical sample conditioning products & systems
- Fluoropolymer chemical delivery fittings, valves & pumps
- High purity gas delivery fittings, valves & regulators
- Instrumentation fittings, valves & regulators
- Medium pressure fittings & valves
- Process control manifolds



#### **FILTRATION**

#### **Key Markets**

- Food & beverage
- Life sciences
- Marine
- Mobile equipment
- Oil & gas
- Process
- Transportation

#### **Key Products**

- Analytical gas generators
- Condition monitoring
- & systems
- coolant filters
- & microfiltration filters
- Nitrogen, hydrogen & zero air generators



#### **ELECTROMECHANICAL**

#### **Key Markets**

- Aerospace
- Factory automation
- Life science & medical
- Machine tools
- Packaging machinery
- Paper machinery
- Plastics machinery & converting
- Primary metals
- Semiconductor & electronics
- Textile
- Wire & cable

#### **Key Products**

- AC/DC drives & systems
- Electric actuators
- Controllers
- Gantry robots
- Gearheads
- Human machine interfaces
- Industrial PCs
- Inverters
- Linear motors, slides and stages
- Precision stages
- Stepper motors
- Servo motors, drives & controls
- Structural extrusions

- Industrial machinery

- Power generation

- Compressed air & gas filters
- Engine air, fuel & oil filtration
- Hydraulic, lubrication &
- Process, chemical, water

# **SEALING & SHIELDING**

#### **Key Markets**

- Aerospace
- Chemical processing
- Consumer
- Energy, oil & gas
- Fluid power
- General industrial
- Information technology
- Life sciences
- Military
- Semiconductor
- Telecommunications
- Transportation

#### **Key Products**

- Dynamic seals
- Elastomeric o-rings
- EMI shielding
- fabricated elastomeric seals • Homogeneous & inserted elastomeric
- High temperature metal seals
- Metal & plastic retained composite seals
- Thermal management



#### **FLUID & GAS HANDLING**

#### **Key Markets**

- Aerospace
- Aariculture
- Bulk chemical handling
- Construction machinery
- Food & beverage
- Fuel & gas delivery
- Industrial machinery
- Mobile
- Oil & gas
- Transportation
- Welding

# **Key Products**

- Brass fittings & valves
- Diagnostic equipment
- Fluid conveyance systems
- Industrial hose
- PTFE & PFA hose, tubing & plastic fittings
- Rubber & thermoplastic hose & couplings
- Tube fittings & adapters · Quick disconnects

- Extruded & precision-cut,
- shapes

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