

## **CONTENTS**





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#### TERMS:

1/2% 10 Days, net 30 Days

#### FREIGHT:

COUPLINGS +

All shipments are made FOB Seal Fast Inc. or Point of Manufacturer. (Applies to shipments from Houston Warehouse Only) Freight prepaid on 1000 net couplings and accessories, \$1500 Net Couplings, PVC Tubing, Braided Tubing and Fire Hose. Freight prepaid on \$3000 Net Couplings, Rubber Hose, PVC Hose and Sheet Rubber with the exclusion of all PVC Suction including 6" and 8" PVC Suction ONLY orders. If combined with other items freight is prepaid at \$3000 Net, otherwise these items will Not be applied toward prepaid freight. Effective immediately, regardless of invoice value, all uncoupled cut lengths of hoses are shipped FOB Seal Fast Inc. Seal Fast Inc. reserves the right to determine the most Economical shipping method on all prepaid shipments. In addition, Seal Fast Inc. reserves the right to refuse any prepaid shipments exceeding 6% freight cost of the order unless items are added or subtracted to keep said freight cost at or below 6%. Applies to Continental United States, excluding Alaska and Hawaii. Any evidence of shortage must be reported to Seal Fast Inc. within 10 days. Any Damage to hose/hoses, etc. customer is responsible for filing a claim with the delivery carrier within 10 days. Seal Fast Inc. will not issue credit.

ALL UPS prepay and add or collect shipments will endure a \$7.50 shipping and handling fee including All backorders. All drop shipments will endure a \$5.00 fee.

#### WARRANTY:

Products are warranted against defects in workmanship and defects in material. Products having such defects will be replaced or credited as Seal Fast elects. Liability is limited to the invoice value of the defective item. Our responsibility shall not exceed the original purchase price of the defective product. In any event, Seal Fast, Inc. shall not be held responsible for any special or consequential damages.

#### **RETURNED GOODS:**

If for any reason you wish to return goods, please contact Seal Fast Inc. for prior authorization number. Goods must be returned within 30 days and must be in new and resaleable condition. Minimum handling charge is 15%.

All discrepancies in shipment / invoice must be reported within 10 days of receipt of goods.

#### PROMPTPAYMENT:

Orders receive preferred treatment when the account is paid promptly. Orders may be held up if any unpaid invoice exceeds 30 days.

#### MINIMUM INVOICE:

All invoices are subject to a minimum billing charge of 50.00 net. Returned checks are subject to a \$25.00 service charge.

#### **GENERAL:**

Orders will be accepted subject to delays caused by accident, strike, fire or other causes beyond the control of the seller including failure of seller's suppliers to deliver. Prices, discounts and other specifications are subject to change without notice. All prices are subject to any applicable taxes imposed. The possessions of this price schedule is not to be construed as an offer to sell at the prices shown. Special price for volume quotes will be accepted in writing only.

#### **PLEASE NOTE:**

Extra care is taken in the preparation of this literature but Seal Fast, Inc. is not responsible for any inadvertent typographical errors or omissions.

## STOCKING WAREHOUSES

SEAL FAST, INC. 5603 Harvey Wilson Dr. Houston, TX 77020

(713) 675-6324 or 800-231-0734 | FAX (713) 675-0146 or 800-681-1515 | E-mail sales@sealfast.com

PORTER ASSOCIATES 1150 Boot Road Unit 1

Downingtown, PA 19335 (610) 518-2301

ASPEN MARKETING, INC 5160 Fox Street Denver, CO 80216

(303) 455-8175 (303) 477-6504 Fax THE WAGNER GROUP

125 State St. P O Box 1683 Elkhart, IN 46516

(574) 294-2769 (574) 522-2083 Fax

## **DISCLAIMERS**

## **Product Images**

- Seal Fast makes every reasonable effort to show accurate product representation, however pictures are for reference only, and do not necessarily reflect the exact product you will receive.
- Seal Fast reserves the right to alter product appearance without notice. Some product features shown in pictures may no longer be available.

## **Product Specifications**

- Seal Fast is continuously working to provide the best quality for the best price.
- We reserve the right to alter product specifications without notice.

## **Product Usage**

- Our Sales Team will do their best to assist in choosing the best product for a particular application. However, it is ultimately the customer's responsibility to determine the correct product for the correct application.
- Seal Fast will not be held liable for the abuse or misuse of our products in a manner in which they are not designed.
- Seal Fast cannot guarantee the integrity of an assembly if other manufacturers parts are used.

## **Product Availability**

• Seal Fast reserves the right to discontinue products at any time without prior notice.

## **Product Pricing**

- Seal Fast is constantly doing our best to maintain pricing levels. However, circumstances change and while many prices go down, others will increase.
- Please contact your sales associate for current pricing.

## CAM & GROOVE COUPLINGS HANDLES

## HANDLES CAM & GROOVE COUPLINGS

### REPLACEMENT HANDLES KITS

All Seal Fast cam arms are supplied complete with pins and spring steel finger rings. All brass, aluminum, and cast iron standard couplers and dust caps are supplied with brass or zinc alloy handles unless otherwise specified. Stainless and poly supplied with 304 stainless steel handle. NOTE: Finger Rings are supplied on Cam Arms of Coupler Sizes 1-1/4" thru 5".





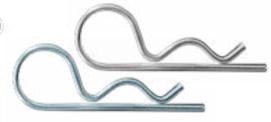
#### (BAG CONTAINS 1 EA)

	HANDLE, RING, PIN								
Size	BRASS								
Size	Part #	List	Part #	List					
1/2"	HRP 050BR								
3/4"	HRP 075BR		HRP 075DBR						
1"	HRP 100BR		HRP 100DBR						
2"	HRP 200BR		HRP 200DBR						
3"	HRP 300BR		HRP 300DBR						
6"	HRP 600BR		HRP 600DBR						
8"	HRP 800BRNAE								
8"	HRP 800BRPTK								

#### (BAG CONTAINS 1 EA)

H	HANDLE, RING, PIN							
	304 SS							
Part #	List	Part #	List					
HRP 050SS								
HRP 075SS		HRP 075DSS						
HRP 100SS		HRP 100DSS						
HRP 200SS		HRP 200DSS						
HRP 300SS		HRP 300DSS						
HRP 600SS		HRP 600DSS						





#### (BAG CONTAINS 1 EA)

**HRP 1200BR** 

(BAG CONTAINS 1 EA)

	SELF LOCKING HAN	DLE, RING, PIN	PAD LOCKING DUST CAP HANDLE, PIN			
	304 S	S	304 SS			
Size	Part #	List	Part #	List		
1"	HRP 100SSK					
1-1/2"			LHP 150SS			
2"	HRP 200SSK		LHP 200SS			
3"	HRP 300SSK		LHP 300SS			
4"			LHP 400SS			
6"	HRP 600SSK		LHP 600SS			



	SAFET	ГΥ	CLIP (BAG (	OF 100 EA)	
PLATED S	TEEL		304 SS		
Part #	List		Part #	List	
SC 1000			SC 1000SS		

#### \*\* Available as:1-1/4 adapter or coupler X 1-1/4 NPT | Please specify: 1-1/2 adapter or coupler X 1-1/4 NPT | 1-1/2 adapter or coupler X 1-1/2 NPT Note: All Seal Fast Cam & Groove Stainless Bodies are 316 Investment with 304 Handles. \* Dust Caps and Dust Plugs are not designed for pressure applications

#### WARNING: Cam & Groove Couplings should NOT be used with any compressed gas, including steam or air. Metal fittings should not be used with Polypropylene Cam & Groove.

## REPLACEMENT HANDLES KITS



Ring - SS 1"- 2"- 3"



Pin - SS

COUPLINGS

### HRP..SK - KITS





### **REPLACEMENT SAFETY CLIPS**



#### \*NOTE REGARDING GASKETS:

All SFI couplers are supplied with Buna-N as standard. However, this sealing compound may not be compatible with all applications.

#### STANDARD SIZES AND THREADS:

The size indicated for a coupler or adapter is the nominal size of pipe or hose to which it connects. Standard sizes for Seal Fast adapters and couplers are 1/2", 3/4", 1", 1-1/4", 1-1/2", 2", 2-1/2", 3", 4", 5", 6" and 8". Threaded parts are furnished with tapered pipe threads (NPT).

#### DUST CAPS AND DUST PLUGS:

Dust Caps and Dust Plugs are not designed for pressure application. Caps and Plugs must be chain or cable constrained at all times.

WORKING PRESSURES FOR ALL METALS						
SIZE	PSI	SIZE	PSI			
1/2"	150 psi	4"	100 psi			
3/4" - 2"	250 psi	5"- 6"	75 psi			
2-1/2"	150 psi	8"	50 psi			
3"	125 psi	10" - 12"	25 psi			

lations based on use of mating fittings at ambient temperature of 70° F with standard Buna-N seal installed. For use at elevated temperatures or other unusual operating conditions, consult SFI.

Varning: Working pressure may vary depending on how the couplings are attached to the hose assembly. Before operation, always check the hose sembly for proper attachment and that couplings are in working order.

MAXIMUM PRESSURES FOR							
BANJO Polypropylene, Import Polypropylene & Nyglass							
At 0° F							
1/2" through 2"	100 psi						
3" through 4"	75 psi						
At 70° F	F						
1/2" through 2"	125 psi						
3" through 4"	75 psi						
At 150 °	F						
1/2" through 2"	70 psi						
3" through 4"	75 psi						

Local: (713) 675-6324 2 National: (800) 231-0734 National: (800) 231-0734 Local: (713) 675-6324

## **CAM & GROOVE COUPLINGS**

## GASKETS

extra thick

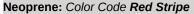
## GASKETS CAM & GROOVE COUPLINGS

#### **REPLACEMENT GASKETS**

The gasket materials listed below comprise a general guide to aid in the selection of the correct seal for customer application.

#### Buna N: Color Code Blue Stripe

Buna N is standard. It is generally recommended for petroleum derivates, neutral or slightly acidic salt solutions, alcohols, ethers, glycols, fats, oils, and greases. This compound should give good service from -40°F to +250°F.



Recommended for alkaline and acid salt solutions and aldehydes such as formaldehyde -65°F to 250°F.

#### FEP: Color Code Green

Recommended for aromatics, hydrocarbons, liquid chlorine, carbon disulfide and molten sulfur. FEP is not recommended for esters or the ketone family. This compound should offer good service -40°F to 400°F.

Fluorinated Ethylene Propylene. Gives an O-ring or gasket it's tremendous characteristics relating to it's resistance to nearly all liquids, gases and chemicals. The exceptions are Liquid Alkali Metals and some Fluorine Compounds.

\*PTFE encapsulated with silicon filler -40°F to 500°F.

#### EPDM: Color Code White Stripe

Ethylene-propylene rubber. Excellent ozone, chemical, and aging resistance. Poor resistance to petroleum-based fluids. \*\*For use with 800IALPTK 8" cam-lock

#### Buna N - FDA: Color Code WHITE

Local: (713) 675-6324

It is generally recommended for food handling, neutral or slightly acidic salt solutions, alcohols, ethers, glycols, fats, oils, and greases. This compound should give good service from -40°F to +250°F.

TEMPERATURE RATINGS								
Gasket		Т	empe	rature	Range	in °F		
Material	500	400	300	275	250	200	150	0
Buna N				<b>\</b>				-40
Neoprene					<b>\</b>			-65
FEP		<b>\</b>						-40
Silicone	<b>✓</b>							-30
*Teflon	$\checkmark$							-40
Nat. Rubber						<b>\</b>		-60
Butyl			<b>✓</b>					-40
Hypalon					$\checkmark$			-65
EPDM							<b>√</b>	
PTFE Encapsulated SILICON		<b>✓</b>						
PTFE Encapsulated FKM		<b>✓</b>						

REPLACEMENT GASKETS

The gasket materials listed below comprise a general guide to aid in the selection of the correct seal for customer application

			-			10			
		BUNA	N	BUNA N (extra thick)		NEOPRENE		FEP	
Size	PK Qty	Part #	List	Part #	List	Part #	List	Part #	List
1/2"	25	050 BN				050 NE		050 VI	
3/4"	25	075 BN				075 NE		075 VI	
1"	25	100 BN		100 BX		100 NE		100 VI	
1-1/4"	25	125 BN		125 BX		125 NE		125 VI	
1-1/2"	25	150 BN		150 BX		150 NE		150 VI	
2"	25	200 BN		200 BX		200 NE		200 VI	
2-1/2"	25	250 BN		250 BX		250 NE		250 VI	
3"	15	300 BN		300 BX		300 NE		300 VI	
4"	10	400 BN		400 BX		400 NE		400 VI	
5"	10	500 BN		500 BX		500 NE		500 VI	

600 NE

600 BN

**800 BN NAE** 

\* 800 BNPTK

10

10

10



600 BX



600 VI

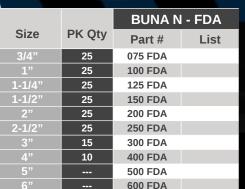
COUPLINGS

		EPDM		FEP Envelope w/Neoprene	Silcone Encapsulated		
Size	PK Qty	Part #	List	Part #	List	Part #	List
1/2"	25	050 EP					
3/4"	25	075 EP		075 TF			
1"	25	100 EP		100 TF			
1-1/4"	25	125 EP		125 TF			
1-1/2"	25	150 EP		150 TF		150TFCAP	
2"	25	200 EP		200 TF		200TFCAP	
2-1/2"	25	250 EP		250 TF		250TFCAP	
3"	15	300 EP		300 TF		300TFCAP	
4"	10	400 EP		400 TF		400TFCAP	
5"				500 TF			
6"				600 TF			

SPECIAL NOTE REGARDING GASKETS: All SFI couplers are supplied with Buna-N as standard. However, this sealing compound may not be compatible with all applications.



		FKM				
Size	PK Qty	Part #	List			
1-1/2"	25	150TFVCAP				
2"	25	200TFVCAP				
2-1/2"	25	250TFVCAP				
3"	25	300TFVCAP				
4"	25	400TFVCAP				



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\*Tetrafluorethylene Resin by DuPont viton & teflon are regestered names

4 \*Viton is a registered trademark of DuPont National: (800) 231-0734 **TECHNICAL DATA** 

## **TECHNICAL DATA**

## **CORROSION RESISTANCE OF COUPLING MATERIALS**

**CAUTION:** The following data has been compiled from generally available sources end should not be relied upon without consulting and following the specific recommendations of the manufacturer regarding particular coupling materials.

RATINGS: 1. Excellent 2. Good	Fair Conditional     Not Satisfactory	NOTES:	No rationg ir	ndicates no	data availab	le			
2. G00u	x. Not Satisfactory					_			
AGENT	Mall. From	Steel	Bronze	Aluminum	Glass	Stainless 410, 416, 430	Stainless 302, 202, 304, 308	Stainless 316	Monel
Acetate, Solvent	s, Crude	3				2	1	1	2
Acetate, Solven	ts, Pure	1	1	1		1	1	1	1
Acetic Ac	id X	X	X	2	1	Χ	2	2	2
Acetic Acid \	/apor X	X		3		Χ	2	2	3
Acetic Anhy	dride X	X		2		X	2	2	2
Acetone	1	. 1	1	1	1	1	1	1	1
Acetylen	e 1	. 2		1		1	1	1	2
Alcohols	1	. 2		1		1	1	1	1
Aluminum Su			3	3	1	Χ	3	2	2
Alums	X		2	3	1	Χ	3	2	2
Ammonia 0			3	1	3	1	1	1	X
Ammonium Ch	nloride 1			1*		3	3	1	1
Ammonium Hye				2		1	1	1	3
Ammonium N				2		1	1	1	3
Ammonium Phosphate		Х				1	1	1	2
Ammonium Phospha		3				1	1	1	2
Ammonium Phosp	hate (Acid)	3				3	2	1	2
Ammonium S	ulfate 1	. 3				2	1	1	2
Asphalt	1	. 2				2	1	1	1
Beer	2	2	1	1		Χ	1	1	1
Beet SugarLic				1		2	1	1	1
Benzene, Be			1	1	1	1	1	1	1
Benzine (petroleun				1		1	1	1	1
Borax	2					1	1	1	1
Boric Aci				1		3	2	1	1
Butane, Buty		. 1	1	1		1	1	1	1
Butadien		1				1	1	1	1
Calcium Bisu		X				Χ	2	1	X
Calcium Hypod			3	X	3	X	3	2	3
Cane Sugar Li		. 2		1		2	1	1	1
Carbon Dioxid				1		1	1	1	1
Carbon Dioxide (Wet &				2		2	1	1	2
Carbon Disu				2		2	1	1	3
Carbon Tetracl			2	3	1	1	1	1	1
Chlorine (D			2	1	2	2	2	2	1
Chlorine (W			3	X	2	Χ	X	3	3
Chromic A		Х	Х	Χ	1	3	2	2	3
Citric Aci				1		3	X	1	2
Coke Oven				2		1	1	1	2
Copper Sul				Χ		1	1	1	3
Core Oils		1	1			1	1	1	1
Cottonseed			1	1		1	1	1	1
Creosote				1		1	1	1	1
Ethers	2			1		1	1	1	1
Ethylene Gly						1	1	1	1
Ferric Chlor			X	X	1	Χ	X	Χ	X
Ferric Sulfa				Χ		1	1	1	3
Formaldehy	vde 2	2		2		1	1	1	1

\*3 to X at high temperatures. Local: (713) 675-6324 Chemical Chart is reprinted from 1996 RMA Hose Handbook

National: (800) 231-0734

### **CORROSION RESISTANCE OF COUPLING MATERIALS**

**CAUTION:** The following data has been compiled from generally available sources end should not be relied upon without consulting and following the specific recommendations of the manufacturer regarding particular coupling materials.

RATINGS: 1. Excellent 3. Fair Conditional									
2. Good x. Not Satisfactory  NOTES: No rationg indicates no data available									
AGENT	Mall. From Steel	Brass	Bronze	Aluminum	Glass	Stainless 410, 416, 430	Stainless 302, 202, 304, 308	Stainless 316	Monel
Formic Acid	Χ	2		X		Χ	2	1	2
Freon	3	1	1	1		1	1	1	1
Furfural	1	2		1		1	1	1	1
Gasoline (Sour)	3	3		3		3	1	1	Χ
Gasoline (Refined)	1	1	1	1		1	1	1	1
Gelatin	1	3		1		1	1	1	1
Glucose	1	1		1		1	1	1	1
Glue	1	3		1		1	1	1	1
Glycerine or Glycerol	1	2		1		1	1	1	1
Hydrochloric Acid	X	X	Χ	X	1	X	X	X	X
Hydrocyanic Acid	3	X		1		3	1	1	2
Hydrofluoric Acid	Χ	3	3	Χ	X	X	X	X	X
Hydrogen Fluoride	1	3				X	X	3	1
Hydrogen	1	1		1		1	1	1	1
Hyrogen Peroxide	X	X		1		1	2	1	2
Hydrogen Sulfide (Dry)	3	3		2		3	2	1	3
Hydrogen Sulfide (Wet)	3	3		2		3	2	1	3
Lacquers and Lacquer Solvents	3	2		1		1	1	1	1
Lactic Acid	X	V		3		1	3	2	1
Lime-Sulfur	2	X		2		1	1	2	1
Linseed Oil Magnesium Chloride	3	3		1 X		3	1 2	1	1
Magnesium Hydroxide		2		X		1	1	1	1
	2	2		3		1	1	1	1
Magnesium Sulfate  Mercuric Chloride	3	X		X		X	X	3	X
Mercury	1	X		X		1	1	1	2
Milk	3	3		1		2	1	1	3
Molasses	2	X		2		2	1	1	1
Natural Gas	1	2		1		1	1	1	1
Nickel Chloride		X		X		X	3	2	2
Nickel Sulfate		3		X		3	2	1	1
Nitric Acid	X	X	Χ	3	1	2	2	2	X
Oleic Acid	2	3	7.	1	1	2	2	1	1
Oxalic Acid	3	3		2		3	2	1	1
Oxygen	1	1	1	1		1	1	1	1
Palmitic Acid	1	3		1		2	2	1	1
Petroleum Oils (Sour)	_	3		_		3	1	1	X
Petroleum Oils (Refined)	1	1	1	1		1	1	1	1
Phosphoric Acid 25%	3	X		3	3	X	3	1	2
Phosphoric Acid 25-50%	X	X		X	3	X	X	2	2
Phosphoric Acid 50-85%	X	X		X	X	X	X	2	2
Picric Acid	3	X		3		2	1	1	X
Potassium Chloride	2	3		3		3	2	1	1
Potassium Hydroxide	3	X		X		1	1	1	1
Potassium Sulfate	2	2		1		1	1	1	1
Propane	1	1				1	1	1	1
Rosin (Dark)	1	2			1	1	1	1	1
Rosin (Light)		X		1		1	1	1	2

\*3 to X at high temperatures.

Chemical Chart is reprinted from 1996 RMA Hose Handbook

Local: (713) 675-6324 7 National: (800) 231-0734

## **TECHNICAL DATA**

#### CORROSION RESISTANCE OF COUPLING MATERIALS

**CAUTION:** The following data has been compiled from generally available sources end should not be relied upon without consulting and following the specific recommendations of the manufacturer regarding particular coupling materials.

RATINGS: 1. Excellent 3. Fair Condition	NOTES: No rationa indicates no data available								
AGENT	Mall. From Steel	Brass	Bronze	Aluminum	Glass	Stainless 410, 416, 430	Stainless 302, 202, 304, 308	Stainless 316	Monel
Shellac		2		2		1	1	1	1
Sludge Acid		X				X	Χ	3	2
Soda Ash (Sodium Carbonate)	1	2		Χ		1	1	1	1
Sodium Bicarbonate	3	1		Χ		1	1	1	1
Sodium Bisulfate	X	3		3		Χ	1	1	1
Sodium Chloride	2	3	2	Χ	1	3	2	1	1
Sodium Cyanide	2	Χ		Χ		1	1	1	2
Sodium Hydroxide	3	X	3	X	Χ	2	2	2	1
Sodium Hypochlorite	X	Χ		Х		Χ	3	2	3
Sodium Metaphosphate	X	3		1		2	1	1	1
Sodium Nitrate	1	3		1		1	1	1	1
Sodium Perborate	3	3		1		1	1	1	1
Sodium Peroxide	3	3		1		1	1	1	1
Sodium Phosphate (Alkaline)		3				1	1	1	1
Sodium Phosphate (Neutral)		2				1	1	1	1
Sodium Phosphate (Acid)		2				X	2	1	1
Sodium Silicate	1	3		Χ		1	1	1	1
Sodium Sulfate	1	2		3		1	1	1	1
Sodium Sulfide	1	Χ				1	1	1	2
Sodium Thiosulfate (Hypo)	3	X		X		1	1	1	2
Stearic Acid	3	3		3		2	2	1	1
Sulfate Liquors		Χ				1	1	1	2
Sulfur	2	Χ		2		2	2	1	3
Sulfur Chloride	X	Χ				Χ	3	2	2
Sulfur Dioxide (Dry)	2	1		1		1	1	1	1
Sulfur Dioxide (Wet)		Χ				Χ	2	1	Χ
Sulfuric Acid 10%	X	Χ	3	3		Χ	Χ	2	2
Sulfuric Acid 10-75%	X	Χ	Χ	Χ		Χ	Χ	Χ	2
Sulfuric Acid 75-95%	3	Х	Х	Х		3	3	2	3
Sulfuric Acid 95%	2	X	Χ			2	2	2	Χ
Surlfurous Acid	Х	Х		Х		X	3	2	X
Tannic Acid	3	3	1	Χ			1	1	1
Tar	1	2		1		2	1	1	1
Toluene, Toluol	1	1		1		1	1	1	1
Trichlorethylene	3	1		3		1	1	1	1
Turpentine		3		1		3	1	1	1
Varnish	2	2				1	1	1	1
Vegetable Oils	1	2		1		1	1	1	1
Vinegar	3	3		3		3	2	1	2
Water (Acid Mine Water)	3	X		3		2	1	1	3
Water (Fresh)	3	1		1		1	1	1	1
Water (Salt)	3	3	2	Χ		3	2	2	1
Whiskey	Х	2				3	1	1	2
Wines	X	2				3	1	1	2
Xylene, Xylol	2	1		1		1	1	1	1
Zinc Chloride	Х	X		Χ		3	2	1	1
Zinc Sulfate	3	3		3		3	2	1	1

\*3 to X at high temperatures.

Local: (713) 675-6324

Chemical Chart is reprinted from 1996 RMA Hose Handbook

8 National: (800) 231-0734

#### **OIL & GASOLINE RESISTANCE**

Rubber hose is used to convey petroleum products both in the crude and refined stages. The aromatic content of refined gasoline is often adjusted to control the octane rating. The presence of aromatic hydrocarbons in this fuel generally has a greater effect on rubber components than do aliphatic hydrocarbons. Aromatic materials in contact with rubber tend to soften it and reduce its physical properties. For long lasting service, the buyer of gasoline hose should inform the hose manufacturer of the aromatic content of the fuel to be handled so that the proper tube compound can be recommended for the specific application.

The effects of oil on rubber depend on a number of factors that include the type of rubber compound, the composition of the oil, the temperature and time of exposure. Rubber compounds can be classified as to their degree of oil resistance based on their physical properties after exposure to a standard test fluid. In this RMA classification, the rubber samples are immersed in IRM 903 oil at 100°C for 70 hours. (See ASTM Method D-471 for a detailed description of the oil and the testing procedure.) As a guide to the user of hose in contact with oil, the oil resistance classes and a corresponding description are listed.

#### PHYSICAL PROPERTIES AFTER EXPOSURE TO OIL:

CLASS A	(HIGH OIL RESISTANCE)	VOLUME CHANGE MAXIMUM +25%	TENSILE STRENGTH RETAINED 80%
CLASS B	(MEDIUM/HIGH OIL RESISTANCE)	+65%	50%
CLASS C	(MEDIUM OIL RESISTANCE)	+100%	40%

#### CHEMICAL RECOMMENDATIONS

The materials being handled by flexible rubber hose are constantly increasing in number and diversity. To assist in the selection of the proper elastomer for the service conditions encountered, the following table has been prepared. The reader is cautioned that it is only a guide and should be used as such, as the degree of resistance of an elastomer with a particular fluid depends upon such variables as temperature, concentration, pressure, velocity of flow, duration of exposure, aeration, stability of the fluid, etc. Also variations in elastomer types and special compounding of stocks to meet specific service conditions have considerable influence on the results obtained. When in doubt, it is always advisable to test the tube compound under actual service conditions. If this is not practical, tests should be devised that simulate service conditions or the hose manufacturer contacted for Recommendations.

The following table lists the more commonly used materials, chemicals, solvents, oils, etc. The recommendation are based on room temperature and pressure conditions normally recommended for the particular type of hose being used. Where conditions beyond this can be met readily, they have been so indicated; where conditions are not normal and cannot be readily met, the hose manufacturer should always be consulted. The table does not imply conformance to the Food & Drug Administration requirements of Federal or State Laws when handling food products.

#### TABLE OF CHEMICAL, OIL & SOLVENT RESISTANCE OF HOSE:

**WARNING:** The following data has been compiled from generally available sources and should not be relied upon without consulting and following the hose manufacturer's specific chemical recommendations. Neglecting to do so might result in failure of the hose to fulfill its intended purpose, and may result in possible damage to property and serious bodily injury.

#### **RESISTANCE RATING**

- A Good Resistance, usually suitable for service.
- **F** Fair Resistance, the chemical has some deteriorative effects, but the elastomer is still adequate for moderate service.
- **C-** Depends on Condition, moderate service may be possible if chemical exposure is limited or infrequent.
- **X-**Not recommended, unsuitable for service.
- I Insufficient Information, not enough data available at the time of publication to determine rating.

#### **RELASTOMERS/PLASTICS**

NR- Natural Rubber IR - Isoprene, synthetic SBR - Styrene-butadiene

CR-Chloroprene
NBR - Nitrile-butadiene

IIR-Isobutene-isoprene
CSM - Chloro-sulfonylpolyethylene

**EPDM** - Ethylene-propylenediene-terpolymer **MQ** - Dimethyl-polysiloxane

**FKM-**Fluoracarbon rubber **CM -** Chloro-polyethylene **ECO/CO-**Ephichlorohydrin

**EXLPE-** Chloro-sulfonyl-polyethylene

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## **NOTES**



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