CAT 1

SANDBLAST / CROWFOOT / GROUND JOINTS

24

HOSE ENDS
NOZZLE HOLDERS
CROWFOOT

SEALFAST
THE SIMPLE SOLUTION

INDEX

TERMS OF SALE

TERMS:

1/2% 10 Days, net 30 Days

FREIGHT:

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

COUPLINGS +

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.

HOSE ENDS & NOZZLE HOLDERS

Hose Ends w/Crowfoot

Hose Size	Hose O.D.	ALUMINUM Part #	ALUMINUM Screws Supplied	ALUMINUM List	BRASS Part #	BRASS Screws Supplied	BRASS List
3/4”	1-1/2”	Q 1AL	4		Q 1BR	4	
1”	1-7/8”	Q 2AL	4		Q 2BR	4	
1-1/4”	2-5/32”	Q 3AL	8		Q 3BR	8	
1-1/2”	2-3/8”	Q 4AL	8		Q 4BR	8	

Hose Ends w/Crowfoot

Hose Size	Hose O.D.	ZINC PLATED IRON Part #	ZINC PLATED IRON Screws Supplied	ZINC PLATED IRON List
3/4”	1-1/2”	Q 1CI	4	
1”	1-7/8”	Q 2CI	4	
1-1/4”	2-5/32”	Q 3CI	8	
1-1/2”	2-3/8”	Q 4CI	8	

Hose Ends Nozzle Holder - NPSM Threaded

Hose Size	Hose O.D.	Pipe Thd.	ALUMINUM Part #	ALUMINUM Screws Supplied	ALUMINUM List	BRASS Part #	BRASS Screws Supplied	BRASS List
3/4”	1-1/2”	1-1/4”	HE 1AL	4		HE 1BR	4	
1”	1-7/8”	1-1/4”	HE 2AL	4		HE 2BR	4	
1-1/4”	2-5/32”	1-1/4”	HE 3AL	8		HE 3BR	8	
1-1/2”	2-3/8”	1-1/4”	HE 4AL	8		HE 4BR	8	

Hose Ends Nozzle Holder - NPSM Threaded

Hose Size	Hose O.D.	Pipe Thd.	ZINC PLATED IRON Part #	ZINC PLATED IRON Screws Supplied	ZINC PLATED IRON List
3/4”	1-1/2”	1-1/4”	HE 1CI	4	
1”	1-7/8”	1-1/4”	HE 2CI	4	
1-1/4”	2-5/32”	1-1/4”	HE 3CI	8	
1-1/2”	2-3/8”	1-1/4”	HE 4CI	8	

Crowfoot X Female NPT

Pipe Thd.	ALUMINUM Part #	ALUMINUM List	BRASS Part #	BRASS List	ZINC PLATED IRON Part #	ZINC PLATED IRON List
1-1/4”	SB 1AL		SB 1BR		SB 1CI	
1-1/2”	SB 2AL		SB 2BR		SB 2CI	

Gaskets - Fit All Sizes - 25 per Pkg. **QG**

REPLACEMENT - GASKETS | SCREWS | WASHERS

Gaskets & Screws

Details	Part #	List
SBR Gaskets - Fit All Sizes - 25 per Pkg.	QG	
Phillips Head Screws 100 per Package 10 X 5/8 Zinc plated	Screws	

Washers / For Use with Crowfeet only. Not to be used for Sandblast. (50 per pkg)

2 Lug	List	4 Lug	List
UCG2		UCG4	
RED UCG2EP (EPDM)		---	

HOSE ENDS

Air & Water ONLY! (Not for Steam Service)

150 psi working pressure @ 70° when used w/Universal Clamps

Size	ZINC PLATED IRON Part #	ZINC PLATED IRON List	BRASS Part #	BRASS List	316 SS Part #	316 SS List
1/4”	---		---		---	
3/8”	SFH038		---		---	
1/2”	SFH050		SFH050B		SFH050SS	
3/4”	SFH075		SFH075B		SFH075SS	
1”	SFH100		SFH100B		SFH100SS	

*Use Safety Clips on p. 127 w/All Universal Crowfeet Couplings

FEMALE NPT

(Air & Water ONLY! Not for Steam Service)

150 psi working pressure @ 70° when used w/Universal Clamps

Size	ZINC PLATED IRON Part #	ZINC PLATED IRON List	BRASS Part #	BRASS List	316 SS Part #	316 SS List
1/4”	SFF025		---		---	
3/8”	SFF038		---		---	
1/2”	SFF050		SFF050B		SFF050SS	
3/4”	SFF075		SFF075B		SFF075SS	
1”	SFF100		SFF100B		SFF100SS	

*Use Safety Clips on p. 127 w/All Universal Crowfeet Couplings

MALE NPT

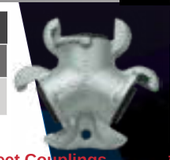
(Air & Water ONLY! Not for Steam Service)

150 psi working pressure @ 70° when used w/Universal Clamps

Size	ZINC PLATED IRON Part #	ZINC PLATED IRON List	BRASS Part #	BRASS List	316 SS Part #	316 SS List
1/4”	SFM025		---		---	
3/8”	SFM038		---		---	
1/2”	SFM050		SFM050B		SFM050SS	
3/4”	SFM075		SFM075B		SFM075SS	
1”	SFM100		SFM100B		SFM100SS	

*Use Safety Clips on p. 127 w/All Universal Crowfeet Couplings

TRIPLE CONNECTION



150 psi working pressure @ 70° when used w/Universal Clamps

Size	ZINC PLATED IRON Part #	ZINC PLATED IRON List	316 SS Part #	316 SS List
---	SFTW00		SFTW00SS	

*Use Safety Clips on p. 127 w/All Universal Crowfeet Couplings

BLANK END

150 psi working pressure @ 70° when used w/Universal Clamps

Size	ZINC PLATED IRON Part #	ZINC PLATED IRON List	316 SS Part #	316 SS List
---	SFBE00		SFBE00SS	

*Use Safety Clips on p. 127 w/All Universal Crowfeet Couplings

FOUR LUG - HOSE ENDS

150 psi working pressure @ 70° when used w/Universal Clamps

Size	ZINC PLATED IRON Part #	ZINC PLATED IRON List
1-1/4”	SFH125	
1-1/2”	SFH150	
2”	SFH200	

*Use Safety Clips on p. 127 w/All Universal Crowfeet Couplings

FOUR LUG - FEMALE NPT

150 psi working pressure @ 70° when used w/Universal Clamps

Size	ZINC PLATED IRON Part #	ZINC PLATED IRON List
1-1/4”	SFF125	
1-1/2”	SFF150	
2”	SFF200	

*Use Safety Clips on p. 127 w/All Universal Crowfeet Couplings

GROUND JOINTS

For Steam Service up to 450°F

ZINC PLATED IRON										
Hose Size	Hose Stem w/Wing Nut & Female Spud		Hose Stem		Swivel Nut		Female Spud - Wing Nut Thread x Female NPT		Male Pipe Stem - NPT	
	Part #	List	Part #	List	Part #	List	Part #	List	Part #	List
3/4”	SFGJ075		SFGJ075H		SFGJ075N		SFGJ075S		SFGJ075MS	
1”	SFGJ100		SFGJ100H		SFGJ100N		SFGJ100S		SFGJ100MS	
1-1/4”	SFGJ125		SFGJ125H		SFGJ125N		SFGJ125S		SFGJ125MS	
1-1/2”	SFGJ150		SFGJ150H		SFGJ150N		SFGJ150S		SFGJ150MS	
2”	SFGJ200		SFGJ200H		SFGJ200N		SFGJ200S		SFGJ200MS	
2-1/2”	SFGJ250		SFGJ250H		SFGJ250N		SFGJ250S		SFGJ250MS	
3”	SFGJ300		SFGJ300H		SFGJ300N		SFGJ300S		SFGJ300MS	
4”	SFGJ400		SFGJ400H		SFGJ400N		SFGJ400S		SFGJ400MS	

MALE SPUD - WING NUT THREAD X MALE NPT

Size	Zinc Plated Iron	
	Part #	List
1/2”	SFGJ050M	
3/4”	SFGJ075M	
1”	SFGJ100M	
1-1/4”	SFGJ125M	
1-1/2”	SFGJ150M	
2”	SFGJ200M	
2 1/2”	SFGJ250M	
3”	SFGJ300M	
4”	SFGJ400M	

DOUBLE SPUD - WING NUT THREAD X WING NUT THREAD

Size	Zinc Plated Iron	
	Part #	List
1/2”	SFGJ050MM	
3/4”	SFGJ075MM	
1”	SFGJ100MM	
1-1/4”	SFGJ125MM	
1-1/2”	SFGJ150MM	
2”	SFGJ200MM	
2 1/2”	SFGJ250MM	
3”	SFGJ300MM	

UNIVERSAL CLAMPS

ZINC PLATED IRON				
Hose ID	From	To	Part #	List
3/8”				
	11/16”	7/8”	SF1	
3/8”				
	11/16”	7/8”	SF1	
1/2”				
	13/16”	15/16”	SF2	
	15/16”	1-1/16”	SF4	
	1-1/16”	1-3/16”	SF5	
3/4”				
	1-1/8”	1-5/16”	SF9A	
	1-3/16”	1-5/16”	SF9U	
	1-5/16”	1-1/2”	SF9B	
	1-1/2”	1-11/16”	SF10	
1”				
	1-17/32”	1-23/32”	SF14U	
	1-11/16”	1-15/16”	SF14	
1-1/4”				
	1-25/32”	2-3/32”	SF19U	
1-1/2”				
	2-3/16”	2-3/8”	SF24U	
	2-1/4”	2-9/16”	SF24	
	2-9/16”	2-3/4”	SF25	
2”				
	2-1/2”	2-25/32”	SF29U	
	2-3/4”	3-1/16”	SF29	
	3-3/32”	3-7/16”	SF30	
3”				
	4-1/16”	4-7/16”	SF39	
4”				
	4-7/8”	5-5/16”	SF49U	
	5-1/8”	6-3/16”	SF49	

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 3. Fair Conditional 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
Acetate, Solvents, Crude		3				2	1	1	2
Acetate, Solvents, Pure		1	1	1		1	1	1	1
Acetic Acid	X	X	X	2	1	X	2	2	2
Acetic Acid Vapor	X	X		3		X	2	2	3
Acetic Anhydride	X	X		2		X	2	2	2
Acetone	1	1	1	1	1	1	1	1	1
Acetylene	1	2		1		1	1	1	2
Alcohols	1	2		1		1	1	1	1
Aluminum Sulfate	X	3	3	3	1	X	3	2	2
Alums	X	3	2	3	1	X	3	2	2
Ammonia Gas	1	X	3	1	3	1	1	1	X
Ammonium Chloride	1	3		1*		3	3	1	1
Ammonium Hydroxide	2	X		2		1	1	1	3
Ammonium Nitrate	1	X		2		1	1	1	3
Ammonium Phosphate (Ammoniacal)		X				1	1	1	2
Ammonium Phosphate (Neutral)		3				1	1	1	2
Ammonium Phosphate (Acid)		3				3	2	1	2
Ammonium Sulfate	1	3				2	1	1	2
Asphalt	1	2				2	1	1	1
Beer	2	2	1	1		X	1	1	1
Beet SugarLiquors	1	2		1		2	1	1	1
Benzene, Benzol	1	1	1	1	1	1	1	1	1
Benzine (petroleum-naphtha)	1	1		1		1	1	1	1
Borax	2	2				1	1	1	1
Boric Acid	X	3		1		3	2	1	1
Butane, Butylene	1	1	1	1		1	1	1	1
Butadiene		1				1	1	1	1
Calcium Bisulfate		X				X	2	1	X
Calcium Hypochlorite	3	3	3	X	3	X	3	2	3
Cane Sugar Liquors	1	2		1		2	1	1	1
Carbon Dioxide (Dry)	1	1		1		1	1	1	1
Carbon Dioxide (Wet & Aqueous Sol)	2	3		2		2	1	1	2
Carbon Disulfide	2	3		2		2	1	1	3
Carbon Tetrachloride	3	1	2	3	1	1	1	1	1
Chlorine (Dry)	2	2	2	1	2	2	2	2	1
Chlorine (Wet)	X	X	3	X	2	X	X	3	3
Chromic Acid		X	X	X	1	3	2	2	3
Citric Acid	X	3		1		3	X	1	2
Coke Oven Gas	1	3		2		1	1	1	2
Copper Sulfate	X	X		X		1	1	1	3
Core Oils		1	1			1	1	1	1
Cottonseed Oil	1	1	1	1		1	1	1	1
Creosote	2	3		1		1	1	1	1
Ethers	2	1		1		1	1	1	1
Ethylene Glycol	2	2				1	1	1	1
Ferric Chloride	X	X	X	X	1	X	X	X	X
Ferric Sulfate	X	X		X		1	1	1	3
Formaldehyde	2	2		2		1	1	1	1

*3 to X at high temperatures. Chemical Chart is reprinted from 1996 RMA Hose Handbook

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 3. Fair Conditional 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	X	2		X		X	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	X
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	X	X	1	X	X	X	X
Hydrocyanic Acid	3	X		1		3	1	1	2
Hydrofluoric Acid	X	3	3	X	X	X	X	X	X
Hydrogen Fluoride		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			3			3	2	1
Lime-Sulfur	2	X		2		1	1	2	
Linseed Oil	1	1		1			1	1	1
Magnesium Chloride	3	3		X		3	2	1	1
Magnesium Hydroxide	1	2		X		1	1	1	1
Magnesium Sulfate	2	2		3		1	1	1	1
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	X	3	1	2	2	2	X
Oleic Acid	2	3		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

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 3. Fair Conditional 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
Shellac		2		2		1	1	1	1
Sludge Acid		X				X	X	3	2
Soda Ash (Sodium Carbonate)	1	2		X		1	1	1	1
Sodium Bicarbonate	3	1		X		1	1	1	1
Sodium Bisulfate	X	3		3		X	1	1	1
Sodium Chloride	2	3	2	X	1	3	2	1	1
Sodium Cyanide	2	X		X		1	1	1	2
Sodium Hydroxide	3	X	3	X	X	2	2	2	1
Sodium Hypochlorite	X	X		X		X	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		X		1	1	1	1
Sodium Sulfate	1	2		3		1	1	1	1
Sodium Sulfide	1	X				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		X				1	1	1	2
Sulfur	2	X		2		2	2	1	3
Sulfur Chloride	X	X				X	3	2	2
Sulfur Dioxide (Dry)	2	1		1		1	1	1	1
Sulfur Dioxide (Wet)		X				X	2	1	X
Sulfuric Acid 10%	X	X	3	3		X	X	2	2
Sulfuric Acid 10-75%	X	X	X	X		X	X	X	2
Sulfuric Acid 75-95%	3	X	X	X		3	3	2	3
Sulfuric Acid 95%	2	X	X			2	2	2	X
Surlfurous Acid	X	X		X		X	3	2	X
Tannic Acid	3	3	1	X			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	X		3	2	2	1
Whiskey	X	2				3	1	1	2
Wines	X	2				3	1	1	2
Xylene, Xylol	2	1		1		1	1	1	1
Zinc Chloride	X	X		X		3	2	1	1
Zinc Sulfate	3	3		3		3	2	1	1

*3 to X at high temperatures.

Chemical Chart is reprinted from 1996 RMA Hose Handbook

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:

		VOLUME CHANGE MAXIMUM	TENSILE STRENGTH RETAINED
CLASS A	(HIGH OIL RESISTANCE)……....	**+25%**	**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. T o 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 condtions 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-sulfonyl-polyethylene
EPDM - Ethylene-propylene-diene-terpolymer
MQ - Dimethyl-polysiloxane
FKM- Fluoracarbon rubber
CM - Chloro-polyethylene
ECO/CO- Ephichlorohydrin
EXLPE- Chloro-sulfonyl-polyethylene

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