

BLAIR

RUBBER COMPANY



MARSEAL[®]

CHEMICAL RESISTANCE GUIDE



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Complete protection of secondary containment areas from corrosive/reactive liquids requires the use of an impervious barrier. *MARSEAL[®]* is manufactured for use as such a barrier.

The following guide should be used for informational purposes only and summarizes the short-term effects of a wide range of liquids on *MARSEAL[®]* lining systems. It is advisable to test the material under actual, or at a minimum, simulated service conditions, before specification and use. Test coupons will be furnished upon request by *MARSEAL[®]*.

Recommendations are based on 72-hour laboratory immersion tests conducted at 70°F. While more than one *MARSEAL[®]* membrane can often handle a given chemical service, only one is recommended that represents the best cost/performance ratio available.

Many factors must be considered when choosing the correct *MARSEAL[®]* membrane, such as chemical service, temperature, operating conditions and physical use. Unless otherwise noted, a temperature limitation of 150°F applies. Where not stated specifically all concentrations are acceptable. If no listing for your specific chemical service, please call us at 800-321-5583.

CHEMICAL	%	M-3500	M-4000	M-7000	M-8000
Description		75-Mil DuPont Elvaloy [®] Membrane	75-Mil Membrane DuPont Elvaloy [®] , 15-Mil Adhesive 90-mil System	50-Mil Membrane Modified EPDM	50-Mil Membrane Modified EPDM, 15-Mil Adhesive 65-mil System
Max. Temperature		Max. temp 150°F (65°C)	Max. temp 150°F (65°C)	Max. temp 300°F (148°C)	Max. temp 300°F (148°C)
Application		Loose Laid Over Earthen Dikes	Surface Adhered over Concrete	Loose Laid Over Earthen Dikes	Surface Adhered over Concrete
Acetaldehyde	Sat.			x	x
Acetic Acid	10			x	x
Acetic Acid	25			x	x
Acetic Acid	50			x	x
Acetic Acid Glacial	Sat.			x	x
Acetic Anhydride	Sat.			x	x
Acetone	Sat.	Not Recommended	Not Recommended	Not Recommended	Not Recommended
Acetyl Chloride	Sat.	x	x		
Acid Mine Water	Sat.	x	x		
Acrylic Acid	Sat.			x	x
Acyonitrile	Sat.			x	x
Activated Silica	Sat.	x	x		
Activated Sewage Sludge	Sat.	x	x		
Adipic Acid	Sat.			x	x

CHEMICAL	%	M-3500	M-4000	M-7000	M-8000
Alcohol (Ethyl)	Sat.	x	x		
Alcohol (Methyl)	Sat.	x	x		
Alkane Sulfonic Acid	50	x	x		
Alkyl Sulfonate	Sat.	x	x		
Alodine	Sat.	x	x		
Alum	Sat.	x	x		
Aluminum Bromide	Sat.	x	x		
Aluminum Chloride	Sat.	x	x		
Aluminum Fluoride	Sat.	x	x		
Aluminum Hydroxide	Sat.	x	x		
Aluminum Nitrate	Sat.	x	x		
Aluminum Phosphate	Sat.	x	x		
Aluminum Sulfate	Sat.	x	x		
Ammonia (Dry)	Sat.	x	x		
Ammonium Alum	Sat.	x	x		
Ammonium Bifluoride	Sat.	x	x		
Ammonium Bisulfite	Sat.	x	x		
Ammonium Carbonate	Sat.	x	x		
Ammonium Chloride	Sat.	x	x		
Ammonium Fluoride	Sat.	x	x		
Ammonium Hydroxide	90	x	x		
Ammonium Nitrate	Sat.	x	x		
Ammonium Persulfate	Sat.	x	x		
Ammonium Phosphate	Sat.	x	x		
Ammonium Sulfate	Sat.	x	x		
Ammonium Sulfide	Sat.	x	x		
Ammonium Sulfite	Sat.	x	x		
Amyl Alcohol	Sat.	x	x		
Aniline	Sat.			x	x
Aniline Hydrochloride	Sat.			x	x
Antimony Chloride	Sat.	x	x		
Arsenic Acid	Sat.	x	x		
ASTM – Oil #1	Sat.	x	x		
Barium Chloride	Sat.	x	x		
Barium Hydroxide	Sat.	x	x		
Barium Sulfate	Sat.	x	x		
Barium Sulfide	Sat.	x	x		
Battery Acid (H ₂ SO ₄)	50	x	x		
Beer	Sat.	x	x		
Benzaldehyde	Sat.			x	x
Benzene	Sat.	Not Recommended		Not Recommended	
Benzenesulfonic Acid	50	x	x		
Benzoic Acid	Sat.				
Benzyl Alcohol	Sat.	x	x		
Benzyl Chloride	Sat.	x	x		
Beryllium Sulfate	Sat.	x	x		
Black Liquor	Sat.	x	x		
Bleach Liquor (NaOCl)	Sat.	x	x		
Borax	Sat.	x	x		
Boric Acid	Sat.	x	x		
Brine (Calcium or Sodium Chloride)	Sat.	x	x		
Butadiene	Sat.	x	x		

CHEMICAL	%	M-3500	M-4000	M-7000	M-8000
Butanol	Sat.	x	x		
Butyl Acetate	Sat.			x	x
Butyric Acid	Sat.			x	x
Butyl Acrylate	Sat.			x	x
Butyl Alcohol	Sat.	x	x		
Butyl Carbitol	Sat.	x	x		
Butyl Cellosolve	Sat.	x	x		
Cadmium Chloride	Sat.	x	x		
Cadmium Plating (Cyanide)	Sat.	x	x		
Calcium Bisulfite	Sat.	x	x		
Calcium Chloride	Sat.	x	x		
Calcium Hydroxide	Sat.	x	x		
Calcium Hypochlorite	10 - 20	x	x		
Calcium Nitrate	Sat.	x	x		
Calcium Sulfate	Sat.	x	x		
Calcium Sulfite	Sat.	x	x		
Calgon	Sat.	x	x		
Caprylic Acid	Sat.			x	x
Carbon Dioxide, Gas	Sat.	x	x		
Carbon Disulfide	Sat.			x	x
Carbon Tetrachloride	Sat.			x	x
Castor Oil	Sat.	x	x		
Caustic Soda	50	x	x		
Caustic Potash	35 @ 90°	x	x		
Chlorinated Paper Pulp	Sat.	x	x		
Chlorinated Salt Brine	Sat.	x	x		
Chlorine Water	Sat.	x	x		
Chlorobenzene	Sat.			x	x
Chloroform	Sat.			x	x
Chlorotoluene	Sat.			x	x
Chrome Alum	Sat.	x	x		
Chrome Salts	Sat.	x	x		
Chromic Acid	40	x	x		
Citric Acid	Sat.	x	x		
Copper Chloride	Sat.	x	x		
Copper Cyanide	Sat.	x	x		
Copper Plating (Acid)	Sat.	x	x		
Copper Plating (Bright-Wes-X)	Sat.	x	x		
Copper, DuPont, High Speed	Sat.	x	x		
Copper, Electroplating	Sat.	x	x		
Copper Sulfate	Sat.	x	x		
Corn Oil	Sat.	x	x		
Corn Starch	Sat.	x	x		
Corn Sugar	Sat.	x	x		
Cotton Seed Oil	Sat.	x	x		
Crude Oil	Sat.	x	x		
Cumene	Sat.	x	x		

CHEMICAL	%	M-3500	M-4000	M-7000	M-8000
Cupric Chloride	Sat.	x	x		
Cyclohexane		Not Recommended		Not Recommended	
Decanol	Sat.				
Deionized Water	Sat.	x	x		
Denatured Alcohol	Sat.	x	x		
Detergent Sulfonated	Sat.	x	x		
Dextrose	Sat.	x	x		
Diammonium Phosphate	Sat.	x	x		
Dibutyl Phthalate	Sat.	x	x		
Dichlorobenzene	Sat.			x	x
Diesel Fuel	Sat.	x	x		
Diethylamine	Sat.	x	x		
Diethylbenzene	Sat.			x	x
Diethyl Ketone	Sat.			x	x
Dimethy Formamide	Sat.			x	x
Distilled Water	Sat.	x	x		
Divinylbenzene	Sat.			x	x
Epichlorohydrin	Sat.			x	x
Epsom Salts	Sat.	x	x		
Esters, Fatty Acids	Sat.	x	x		
Ethanol	Sat.	x	x		
Ethoxylated Nonyl Phenol	Sat.	Not Recommended		Not Recommended	
Ethyl Acetate	Sat.			x	x
Ethyl Acrylate	Sat.			x	x
Ethyl Alcohol	Sat.	x	x		
Ethylbenzene	Sat.			x	x
Ethylene Dichloride	Sat.			x	x
Ethyl Ether	Sat.	x	x		
Ethyl Sulfate	Sat.	x	x		
Ethylene Glycol	Sat.	x	x		
Fatty Acids	Sat.			x	x
Ferric Chloride	Sat.	x	x		
Ferric Nitrate	Sat.	x	x		
Ferric Sulfate	Sat.	x	x		
Ferrous Chloride	Sat.	x	x		
Ferrous Sulfate	Sat.	x	x		
Fluoroboric Acid	20	x	x		
Fluorosilicic Acid	20	x	x		
Fluorosulfonic Acid	50	x	x		
Formaldehyde	40@90°	x	x		
Formic Acid (90°)	Sat.	x	x		
Freon 12	Sat.	x	x		
Freon 22	Sat.	x	x		
Freon 113	Sat.	x	x		
Fuel Oil (A-B-C)	Sat.	x	x		
Fumaric Acid	Sat.	x	x		
Furfural (Furfuraldehyde) (90°)	Sat.	x	x		
Gallic Acid	Sat.	x	x		

CHEMICAL	%	M-3500	M-4000	M-7000	M-8000
Gasoline	Sat.	x	x		
Glauber's Salts	Sat.	x	x		
Gluconic Acid	50	x	x		
Glucose	Sat.	x	x		
Gluten (125°)	Sat.	x	x		
Glycerin	Sat.	x	x		
Glycerol	Sat.	x	x		
Glycol	Sat.	x	x		
Glycolic Acid	Sat.	x	x		
Gold Chloride	Sat.	x	x		
Grain Alcohol	Sat.	x	x		
Grape Juice	Sat.	x	x		
Green Liquor	Sat.	x	x		
Heptane	Sat.	x	x		
Hexane	Sat.	Not Recommended		Not Recommended	
Hydrated Lime and H ₂ O	Sat.	x	x		
Hydraulic Oil	Sat.	x	x		
Hydrazine	35			x	x
Hydriodic Acid	40	x	x		
Hydrobromic Acid	Sat.	x	x		
Hydrochloric Acid	Sat.	x	x		
Hydrocyanic Acid	25	x	x		
Hydrofluoric Acid	50 @ 90°	x	x		
Hydrofluorosilic Acid	50	x	x		
Hydrogen Bromide	Sat.	x	x		
Hydrogen Peroxide	90	x	x		
Hydrogen Sulfate	50	x	x		
Hydroquinone	Sat.	x	x		
Hydrosilicofluoric Acid	50	x	x		
Hypochlorite – Na	6-18	x	x		
Hypochlorous Acid	10	x	x		
Insecticides	Sat.	x	x		
Iron Chloride	Sat.	x	x		
Iron Sulfate	Sat.	x	x		
Isobutanol	Sat.	x	x		
Iso-Butyl Alcohol	Sat.	x	x		
Isopropanol	Sat.	x	x		
Isopropyl Alcohol	Sat.	x	x		
Jet Fuel (Kerosene) JP-4	Sat.	x	x		
Kaolin	Sat.	x	x		
Kerosene	Sat.	x	x		
Lactic Acid	50	x	x		
Lauryl Chloride	Sat.	x	x		
Lead Acetate	Sat.	x	x		
Lead Nitrate	Sat.	x	x		
Lead Sulfate	Sat.	x	x		
Levulinic Acid	Sat.	x	x		
Lime, Hydrated	Sat.	x	x		
Lime Water	Sat.	x	x		
Linseed Oil	Sat.	x	x		

CHEMICAL	%	M-3500	M-4000	M-7000	M-8000
Lithium Bromide	Sat.	x	x		
Lithium Chloride	Sat.	x	x		
Lithium Hydroxide	Sat.	x	x		
Lithium Hypochlorite	Sat.	x	x		
Lye Solution	Sat.	x	x		
Magnesium Bisulfite	Sat.	x	x		
Magnesium Carbonate	Sat.	x	x		
Magnesium Chloride	Sat.	x	x		
Magnesium Hydroxide	Sat.	x	x		
Magnesium Nitrate	Sat.	x	x		
Magnesium Phosphate	Sat.	x	x		
Magnesium Sulfate	Sat.	x	x		
Maleic Acid	25	x	x		
Maleic Anhydride	Sat.	x	x		
Malic Acid	Sat.	x	x		
Manganese Chloride	Sat.	x	x		
Manganese Sulfate	Sat.	x	x		
Mercuric Chloride	Sat.	x	x		
Mercuric Cyanide	Sat.	x	x		
Mercurous Chloride	Sat.	x	x		
Mercury	Sat.	x	x		
Methanol	Sat.	x	x		
Methyl Alcohol	Sat.	x	x		
Methylene Chloride	Sat.			x	x
Methyl Ethyl Ketone	Sat.			x	x
Methyl Isobutyl Ketone	Sat.			x	x
Milk Products	Sat.	x	x		
Milk of Lime	Sat.	x	x		
Mine Water, Acid	Sat.	x	x		
Mine Water, Alkaline	Sat.	x	x		
Mineral Oil (90°)	Sat.	x	x		
Mineral Spirits (90°)	Sat.	x	x		
Molasses	Sat.	x	x		
Molybdc Acid	Sat.	x	x		
Monoethanolamine	Sat.			x	x
Monosaccharide	Sat.	x	x		
Muriatic Acid	Sat.	x	x		
Mustard	Sat.	x	x		
Naphtha	Sat.	x	x		
Naphthalene	Sat.			x	x
Nickel Acetate	Sat.	x	x		
Nickel Chloride	Sat.	x	x		
Nickel Nitrate	Sat.	x	x		
Nickel Sulfate	Sat.	x	x		
Nicotine Sulfate	Sat.	x	x		
Niter or Niter Cake	Sat.	x	x		
Nitric Acid	< 40	x	x		
Nitric Acid	> 40	Not Recommended		Not Recommended	
Nitrobenzene	Sat.			x	x
Octanoic Acid	Sat.			x	x
Oils (Animal)	Sat.	x	x		

CHEMICAL	%	M-3500	M-4000	M-7000	M-8000
Oils (Mineral)	Sat.	x	x		
Oils (Vegetable)	Sat.	x	x		
Oleum	Sat.				
Oxalic Acid	10	x	x		
Palmitic Acid	Sat.	x	x		
Paper Alum	Sat.	x	x		
Perchloric Acid	10			x	x
Perchloroethylene	Sat.			x	x
Phenol	Sat.			x	x
Phenylsulfonic Acid	40	x	x		
Phosphoric Acid (90°)	Sat.	x	x		
Phosphotungstic Acid	Sat.	x	x		
Phthalic Acid	10	x	x		
Pickle Alum	Sat.	x	x		
Picric Acid	Sat.	x	x		
Polyvinyl Acetate	Sat.	x	x		
Potable Water	Sat.	Not Recommended		Not Recommended	
Potash	10	x	x		
Potassium Acid Sulfate	Sat.	x	x		
Potassium Alum	Sat.	x	x		
Potassium Bicarbonate	Sat.	x	x		
Potassium Bichromate	Sat.	x	x		
Potassium Borate	Sat.	x	x		
Potassium Bromide	Sat.	x	x		
Potassium Carbonate	Sat.	x	x		
Potassium Chloride	Sat.	x	x		
Potassium Cuprocyanide	Sat.	x	x		
Potassium Cyanide	Sat.	x	x		
Potassium Dichromate	Sat.	x	x		
Potassium Fluoride	Sat.	x	x		
Potassium Hydroxide	35 @ 90°	x	x		
Potassium Hypochlorite	6-13	x	x		
Potassium Nitrate	Sat.	x	x		
Potassium Permanganate	Sat.	x	x		
Potassium Persulfate	Sat.	x	x		
Potassium Sulfate	Sat.	x	x		
Potassium Sulfite	Sat.	x	x		
Potassium Thiosulfate	Sat.	x	x		
Propanol	Sat.	x	x		
Propionic Acid	Sat.	x	x		
Propyl Alcohol	Sat.	x	x		
Propylene Glycol	Sat.	x	x		
Sal Ammoniac	Sat.	x	x		
Salicylic Acid	Sat.	x	x		
Saline Water	Sat.	x	x		
Sal Soda	Sat.	x	x		
Salt Brine	Sat.	x	x		
Salt Peter	Sat.	x	x		

CHEMICAL	%	M-3500	M-4000	M-7000	M-8000
Salt Water	Sat.	x	x		
Selenious Acid	Sat.	x	x		
Silver Nitrate	Sat.	x	x		
Skydrol	Sat.	Not Recommended		Not Recommended	
Slaked Lime	Sat.	x	x		
Soda Alum	Sat.	x	x		
Soda Ash	Sat.	x	x		
Sodium Acetate	Sat.	x	x		
Sodium Acid Carbonate	Sat.	x	x		
Sodium Aluminate	Sat.	x	x		
Sodium Aluminum Sulfate	Sat.	x	x		
Sodium Antimonate	Sat.	x	x		
Sodium Bicarbonate	Sat.	x	x		
Sodium Bifluoride	Sat.	x	x		
Sodium Bisulfate	Sat.	x	x		
Sodium Bisulfite	Sat.	x	x		
Sodium Borate	Sat.	x	x		
Sodium Bromate	Sat.	x	x		
Sodium Carbonate	Sat.	x	x		
Sodium Chlorate	Sat.	x	x		
Sodium Chloride	Sat.	x	x		
Sodium Chlorite	Sat.	x	x		
Sodium Cyanide	Sat.	x	x		
Sodium Fluoride	Sat.	x	x		
Sodium Fluorosilicate	50	x	x		
Sodium Glycolate	Sat.	x	x		
Sodium Hexafluorosilicate	10-50	x	x		
Sodium Hydroxide	1-73	x	x		
Sodium Hypochlorite	6-20	x	x		
Sodium Hypophosphite	Sat.	x	x		
Sodium Lauryl Sulfate	Sat.	x	x		
Sodium Oxalate	Sat.	x	x		
Sodium Perborate	Sat.	x	x		
Sodium Peroxide	Sat.	x	x		
Sodium Phosphate	Sat.	x	x		
Sodium Pyroborate	Sat.	x	x		
Sodium Sulfate	Sat.	x	x		
Sodium Sulfide	Sat.	x	x		
Sodium Sulfite	Sat.	x	x		
Sodium Tartrate	Sat.	x	x		
Sodium Thiosulfate	Sat.	x	x		
Sorbitol Solutions	Sat.	x	x		
Soybean Oil	Sat.	x	x		
Stannic Chloride	Sat.	x	x		
Stannous Chloride	Sat.	x	x		
Stearic Acid	Sat.	x	x		
Styrene (48 hours)	Sat.			x	x
Sugar/Sucrose	Sat.	x	x		
Sulfamic Acid	Sat.	x	x		

CHEMICAL	%	M-3500	M-4000	M-7000	M-8000
Sulfite Liquors	Sat.	x	x		
Sulfonic Acid	20-50	x	x		
Sulfur Dioxide (Dry or Wet)	Sat.	x	x		
Sulfuric Acid	< 50			x	x
Sulfurous Acid	51	x	x		
Sulfur Trioxide	Sat.	x	x		
Tall Oil	Sat.	x	x		
Tannic Acid	10 @ 90°	x	x		
Tartaric Acid	Sat.	x	x		
Tetrachloroethane	Sat.			x	x
Tetrachloroethylene	Sat.			x	x
Tin Perchloride	Sat.	x	x		
Tin Salt	Sat.	x	x		
Tobias Acid	Sat.	x	x		
Toluene	Sat.	Not Recommended		Not Recommended	
Toluene Sulfonic Acid	Sat.	Not Recommended		Not Recommended	
Trichloroacetic Acid	Sat.			x	x
Trichloroethane	Sat.			x	x
Trichloroethylene	Sat.			x	x
Triethylamine	Sat.	x	x		
Trisodium Phosphate	Sat.	x	x		
Turpentine	Sat.	x	x		
Urea	Sat.	x	x		
Vinegar	Sat.	x	x		
White Liquor (Paper)	Sat.	x	x		
Xylene	Sat.	Not Recommended		Not Recommended	
Zinc Acetate	Sat.	x	x		
Zinc Chloride	Sat.	x	x		
Zinc Cyanide	Sat.	x	x		
Zinc Sulfate	Sat.	x	x		

MARSEAL[®]
CORROSION RESISTANT LININGS

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