NIBA

CHEMICAL

RESISTANCE

CHART

NATIONAL INDUSTRIAL BELTING ASSOCIATION
235 N. Executive Drive, Suite 100
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NOTE:

The following information pertaining to Chemical Resistance is intended to serve as a general guide.

The information listed does not take into account all variables that can be encountered in actual use. Thus, it is advisable to test material under actual or simulated service conditions.

Specific polymers of the same generic type and their compounds can vary widely with respect to Chemical Resistance.

NIBA Technical Committee

CHEMICAL RESISTANCE CHART

(12/3/91)

1 = Excellent; 2 = Good;
3 = Conditional; 4 = Not Recommended

Chemical	PVC		Rubber						Other			
	Standard	Oil Res-istant	Nitrile	SBR	Natural	Neo-prene	Butyl	EPDM	Ure-thane	Sili-cone	Teflon	Hytrel
Acetaldehyde	4	4	4	4	3	3	2	1	4	3	1	3
Acetic Acid (Glacial)	4	4	3	3	3	3	3	1	3	2	1	1
Acetic Acid - 30%	3	3	3	3	2	4	3	1	3	1	1	1
Acetic Anhydride	3	3	3	4	3	2	2	2	2	3	1	-
Acetone	4	4	4	4	4	2	3	2	4	3	1	2
Alcohols	3	3	1	4	2	1	1	1	4	2	1	1
Aluminum Chloride	1	1	1	1	1	1	1	2	1	1	1	2
Aluminum Nitrate	1	1	1	1	1	1	1	1	1	1	1	1
Ammonium Carbonate	1	1	2	1	1	1	1	1	1	1	1	1
Ammonium Hydroxide	1	1	4	4	4	1	1	1	2	2	1	1
Ammonium Nitrate	1	1	1	1	4	2	1	1	1	1	1	1
Ammonium Phosphate	2	1	1	1	2	1	1	1	1	1	1	1
Ammonium Sulfate	2	1	1	1	1	1	1	2	1	1	1	1
Animal Fats	4	2	2	4	4	2	2	2	3	3	1	1
Asphalt	4	3	2	4	4	4	4	4	2	2	1	2
Barium Chloride	1	1	1	1	1	1	1	1	1	1	1	-
Borax	1	1	2	2	2	1	1	1	1	1	1	1
Boric Acid	1	1	1	1	1	1	1	1	1	1	1	1
Butter	4	2	1	4	4	3	2	4	2	3	1	1
Calcium Chloride	1	1	1	1	1	1	1	1	1	1	1	1
Calcium Hydroxide	1	1	1	1	1	1	1	1	2	2	1	2
Calcium Nitrate	1	1	1	1	1	1	1	1	1	1	1	1
Carbolic Acid	4	4	4	4	4	4	4	4	4	4	2	4
Castor Oil	4	1	1	4	4	1	1	2	1	1	1	1

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	Standard	Oil Resistant	Nitrile	SBR	Natural	Neo-prene	Butyl	EPDM	Urethane	Silicone	Teflon	Hytrel
Chlorinated Solvents	4	4	4	4	4	4	4	4	4	3	2	4
Chlorine Solutions	3	3	3	1	1	1	1	1	3	3	1	4
Citric Acid	1	1	1	1	1	1	1	1	1	2	1	1
Coal	3	1	1	3	4	2	4	1	1	1	1	-
Coconut Oil	4	2	1	4	4	2	1	1	1	3	1	1
Copper Sulfate	1	1	1	1	2	1	1	1	1	1	1	1
Corn Oil	4	2	1	3	4	2	2	3	2	2	1	1
Cotton Seed Oil	4	2	1	3	4	2	2	3	2	2	1	1
Denatured Alcohol	3	3	1	3	1	1	1	1	4	2	1	1
Diesel Fuel	4	2	1	4	4	2	4	4	1	3	1	-
Ethyl Alcohol	3	3	1	3	1	1	1	1	4	2	1	1
Ethyl Cellulose	3	2	1	1	1	1	1	1	4	1	1	1
Ethylene Glycol	3	3	1	1	2	1	1	1	2	2	1	1
Fatty Acids	4	3	2	3	4	2	4	4	2	2	1	2
Ferric Chloride	1	1	1	1	1	1	1	1	1	1	1	2
Ferric Sulfate	1	1	1	1	1	1	1	1	1	1	1	1
Formaldehyde	1	1	2	4	4	2	1	1	1	1	1	2
Fuel Oils	4	2	1	4	4	2	4	4	3	3	1	1
Furfural	4	4	1	4	4	1	2	2	4	1	1	-
Gasoline	4	4	1	4	4	2	4	4	2	3	1	1
Glucose	1	1	1	1	1	1	1	1	1	1	1	1
Glycerine	1	1	1	1	1	1	1	1	1	1	1	1
Hydraulic Oil	4	2	2	3	4	2	4	4	4	3	1	1
Hydrochloric Acid	3	3	4	3	2	1	1	1	4	3	1	2
Kerosene	4	4	2	4	4	3	4	4	4	3	1	2
Lacquers	4	4	4	4	4	4	4	4	4	4	4	1

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	Standard	Oil Resistant	Nitrile	SBR	Natural	Neo-prene	Butyl	EPDM	Urethane	Silicone	Teflon	Hytrel
Lard	4	2	2	3	4	3	4	4	2	1	1	1
Limestone	1	1	1	1	1	1	2	1	1	1	1	1
Linseed Oil	4	2	1	3	4	2	2	2	4	2	1	1
Lubricating Oil	4	1	1	3	4	2	4	4	3	3	1	2
Magnesium Chloride	1	1	1	1	1	1	1	1	1	1	1	2
Magnesium Hydroxide	1	1	2	2	2	1	1	1	1	1	1	2
Magnesium Sulfate	1	1	1	1	2	1	1	1	1	1	1	2
Methyl Alcohol	3	3	1	3	1	1	1	1	4	2	1	1
Methyl Ethyl Ketone	4	4	4	4	4	4	1	1	4	3	1	1
Mineral Oil	3	1	1	3	4	2	3	4	1	3	1	1
Mineral Spirits	4	4	3	4	4	2	4	4	4	3	1	1
Molasses	1	1	1	1	1	1	1	1	1	1	1	1
Naptha	4	4	3	4	4	4	4	4	4	3	1	1
Nitric Acid	3	3	4	4	4	4	3	2	4	3	1	3
Oil Sands	4	1	1	3	4	2	4	4	1	3	1	1
Oil Shale	4	1	1	3	4	2	4	4	1	2	1	1
Ozone	3	3	4	4	4	2	2	1	1	2	1	-
Paraffin	2	1	1	2	4	2	2	2	3	1	1	1
Peanut Oil	4	2	2	3	4	2	3	3	2	2	1	1
Petroleum Oils	4	2	1	4	4	2	3	4	3	2	1	1
Phosphate Ore	2	2	1	1	1	1	1	1	1	1	1	1
Phosphoric Acid	1	1	2	3	3	2	2	1	3	3	1	1
Pine Oil	3	1	1	3	4	4	4	4	2	2	1	2
Potassium Chloride	1	1	1	1	1	1	1	1	1	1	1	2
Potassium Hydroxide	1	1	2	2	2	1	1	1	2	2	1	1

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Potassium Nitrate	1	1	1	1	1	1	1	1	1	1	1	1
Potassium Sulfate	1	1	1	1	2	1	1	1	1	1	1	1
Silicone Oil	2	1	1	2	3	1	1	2	1	1	1	1
Soda Ash	1	1	1	1	1	1	1	1	1	1	1	1
Sodium Bicarbonate	1	1	1	1	1	1	1	2	1	1	1	1
Sodium Bisulfate	1	1	1	2	2	1	1	1	1	1	1	1
Sodium Chloride	1	1	1	1	1	1	1	1	1	1	1	1
Sodium Hydroxide	1	1	2	1	1	1	1	1	2	3	1	1
Sodium Hypochlorite	3	3	3	3	3	2	2	2	3	3	1	1
Sodium Nitrate	1	1	2	2	2	1	1	1	1	1	1	1
Sodium Peroxide	1	1	2	2	2	1	1	1	1	1	1	1
Sodium Phosphates	1	1	1	1	1	1	1	1	1	1	1	1
Sodium Silicate	1	1	1	1	1	1	1	1	1	1	1	1
Sodium Sulfate	1	1	1	3	2	1	1	2	1	1	1	1
Sodium Sulfide	1	1	4	3	3	2	2	2	1	1	1	1
Soybean Oil	3	2	1	3	4	2	1	2	2	2	1	1
Sugar Beets	1	1	1	1	1	1	1	1	1	1	1	1
Sugar Cane	1	1	1	1	1	1	1	1	1	1	1	1
Sulfur	1	1	4	4	4	1	1	1	1	1	1	1
Sulfuric Acid	2	2	4	3	3	1	2	2	3	3	1	1
Tar (Bituminous)	3	1	1	3	4	2	4	4	1	1	1	1
Tartaric Acid	1	1	1	2	2	2	2	2	1	1	1	2
Tetrachloro-ethylene	4	4	4	4	4	4	4	4	4	4	4	4
Toluene	4	3	3	4	4	4	4	4	4	4	1	2

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Trichloroethylene	4	4	4	4	4	4	4	4	4	4	4	4
Trichloroethane	4	4	4	4	4	4	4	4	4	4	1	4
Turpentine	4	3	1	3	4	4	4	4	4	3	1	4
Ultra-Violet	1	1	3	3	2	1	1	2	2	1	1	2
Urea	1	1	1	1	1	1	1	1	1	1	1	1
Urine	1	1	2	2	2	2	2	2	2	1	1	2
Vegetable Oils	4	2	1	3	4	2	3	3	2	2	1	1
Vinegar	1	1	2	2	2	1	1	1	1	2	1	1
Water	1	1	1	1	1	1	1	1	1	1	1	1
Wood Oils	3	1	1	2	4	2	4	4	1	1	1	1
Xylene	4	4	4	4	4	4	4	4	4	4	1	2
Zinc Chloride	1	1	1	1	1	1	1	1	1	1	1	1
Zinc Sulfate	1	1	1	1	2	1	1	1	1	1	1	1

Note: The above chemical resistance chart does not refer to chemical blends or combination of chemical exposures. Chemical exposure is at room temperature.