

The following definitions will aid readers using this Chemical Resistance Guide: **AMB** - Ambient or room temperature exposure; **NR** - Not Resistant; - No Data. **NOTE:** Temperature data may not be maximum, but rather upper temperature at which a resin has been tested. This is intended for general use only. **This chart does not contain chemical information for pultruded floor plate.**

\* Applies to **SAFPLANK®** & **SAFDECK®** only.

Consult **McNICHOLS** for corrosion recommendations at concentrations, temperatures or chemicals not listed in this guide. The information in this guide is correct to the best of our knowledge. It is based on extensive experience with fiberglass grating in corrosive applications. Because actual use conditions differ and mixtures of corrosives will occur in service, the end user must test for use under actual

conditions. Most of the information in this guide is based on laboratory tests and extrapolated values supplied by resin manufacturers. There are no warranties, expressed or implied, including warranties of merchantability or fitness for any particular purpose. In no event will **McNICHOLS** be liable for incidental or consequential damages, whether arising from alleged negligence, strict liability or otherwise.

Chemical Environment	Vinyl ester SV	Polyester SP	Chemical Environment	Vinyl ester SV	Polyester SP
Acetic Acid 0-50%	160	74	Citric Acid	160	150
Alcohol, Butyl	74	NR	Coconut Oil	160	74
Alcohol, Ethyl 10%	150	NR	Copper Chloride	160	150
Alcohol, Isopropyl 10%	150	-	Copper Cyanide	160	NR
Alcohol, Isopropyl 100%	74	NR	Copper Fluoride	160	NR
Alcohol, Methyl 10%	150	NR	Copper Nitrate	74	150
Alcohol, Methyl Isobutyl	150	NR	Copper Sulfate	160	150
Alcohol, Secondary Butyl	150	NR	Corn Oil	160	74
Alum	160	150	Corn Starch-Slurry	160	74
Aluminum Chloride	160	150	Corn Sugar	160	74
Aluminum Hydroxide 5%	120	NR	Cottonseed Oil	160	74
Aluminum Nitrate	160	150*	Crude Oil, Sour	160	74
Aluminum Potassium Sulfate	160	150	Crude Oil, Sweet	160	74
Ammonia, Aqueous 0-10%	100	-	Cyclohexane	120	74
Ammonia, Gas	100	-	Detergents, Sulfonated	160	74
Ammonium Bicarbonate	120	74	Di-Ammonium Phosphate	160	NR
Ammonium Bisulfite	120	-	Dibutyl Ether	120	NR
Ammonium Carbonate 10%	120	-	Diesel Fuel	160	74
Ammonium Citrate	120	74*	Diethylene Glycol	160	74
Ammonium Hydroxide 5%	120	74	Dimethyl Phthalate	160	NR
Ammonium Hydroxide 10%	120	NR	Diethyl Phthalate	160	NR
Ammonium Hydroxide 20%	120	NR	Dipropylene Glycol	160	74
Ammonium Nitrate 50%	160	150	Dodecyl Alcohol	160	NR*
Ammonium Persulfate 20%	120	NR	Esters, Fatty Acids	160	150*
Ammonium Phosphate	120	NR	Ethylene Glycol	160	150
Ammonium Sulfate	160	150	Fatty Acids	160	150
Arsenious Acid	160	74*	Ferric Chloride	160	150
Barium Acetate	160	NR	Ferric Nitrate	160	150
Barium Carbonate	160	NR	Ferric Sulfate	160	150
Barium Chloride	160	74	Ferrous Chloride	160	150
Barium Hydroxide	120	-	Ferrous Nitrate	160	150
Barium Sulfate	160	150	Ferrous Sulfate	160	150
Barium Sulfide	160	NR	8-8-8 Fertilizer	160	74
Beer	120	74	Fertilizer: Urea Ammon. Nitrate	120	NR*
5% Benzene in Kerosene	160	74*	Flue Gas	160	NR*
Benzene Sulfonic Acid 30%	160	150	Fluosilicic Acid 0-20%	160	NR
Benzoic Acid	160	74	Formaldehyde	160	74
O-Benzoyl Benzoic Acid	160	74*	Formic Acid 10%	160	74
Butylene Glycol	160	150	Fuel Oil	160	74
Butyric Acid 0-50%	160	74	Gas, Natural	160	74
Cadmium Chloride	160	74	Gasoline, Auto	160	74
Calcium Bisulfate	160	150	Gasoline Aviation	160	74
Calcium Carbonate	-	-	Gasoline, Ethyl	160	74
Calcium Chlorate	160	150	Gasoline, Sour	160	74
Calcium Chloride	160	150	Glyconic, Acid	160	74
Calcium Hydroxide	-	-	Glucose	160	150
Calcium Hypochlorite	120	74	Glycerine	160	150
Calcium Nitrate	160	150	Glycol, Propylene	160	150
Calcium Sulfate	160	150	Glycolic Acid 70%	160	74
Calcium Sulfite	160	150	Heptane	160	74
Caprylic Acid	160	74	Hexane	160	74
Carbon Dioxide	160	150	Hexalene Glycol	160	150
Carbon Monoxide	160	150	Hydraulic Fluid	160	74
Carbon Tetrachloride	100	NR*	Hydrobromic Acid 0-25%	160	74
Carbonic Acid	160	150	Hydrochloric Acid 15%	160	NR*
Carbon Methyl Cellulose	120	NR*	Hydrocyanic Acid	160	74
Castor Oil	160	150*	Hydrofluosilicic Acid 10%	160	NR
Chlorinated Wax	160	NR*	Hydrogen Bromide, Wet Gas	160	NR*
Chlorine Dioxide/Air	160	74	Hydrogen Chloride, Dry Gas	160	NR*
Chlorine Dioxide, Wet Gas	160	NR*	Hydrogen Chloride, Wet Gas	160	NR
Chlorine, Dry Gas	160	74	Hydrogen Fluoride, Vapor	74	95
Chlorine, Wet Gas	160	NR	Hydrogen Peroxide 35%	120	ASK
Chlorine, Water	160	NR	Hydrogen Sulfide Dry	160	74* ASK
Chloroacetic Acid 0-50%	100	NR	Hydrogen Sulfide, Aqueous	160	74*
Chromic Acid 20%	120	NR*	Hydrosulfite Bleach	120	NR*
Chromium Sulfate	160	150	Hypochlorous Acid 0-10%	160	ASK

Continued on page 7.

\* Applies to SAFPLANK® & SAFDECK® only. See page 6 for information on using this guide.

Chemical Environment	Vinyl ester SV	Polyester SP	Chemical Environment	Vinyl ester SV	Polyester SP
Isopropyl Amine	100	NR*	Sodium Bifluoride	120	74
Isopropyl Palmitate	160	150	Sodium Bisulfate	160	150
Jet Fuel	160	74*	Sodium Bisulfite	160	150
Kerosene	160	74*	Sodium Bromate	140	74*
Lactic Acid	160	ASK	Sodium Bromide	160	150
Lauroyl Chloride	160	NR*	Sodium Carbonate 0-25%	-	-
Lauric Acid	160	NR*	Sodium Chlorate	160	74
Lead Acetate	160	ASK	Sodium Chloride	160	74
Lead Chloride	160	74*	Sodium Chlorite 25%	160	74
Lead Nitrate	160	74*	Sodium Chromate	160	74*
Levulinic Acid	160	74*	Sodium Cyanide	160	74
Linseed Oil	160	150*	Sodium Dichromate	160	150
Lithium Bromide	160	150*	Sodium Di-Phosphate	160	150
Lithium Sulfate	160	150*	Sodium Ferricyanide	160	150
Magnesium Bisulfite	160	74*	Sodium Fluoride	120	NR*
Magnesium Carbonate	-	-	Sodium Fluoro Silicate	120	NR*
Magnesium Chloride	160	150+ASK	Sodium Hexametaphosphates	100	NR*
Magnesium Hydroxide	140	NR*	Sodium Hydroxide 0-5%	150	NR
Magnesium Nitrate	160	74+ASK	Sodium Hydroxide 5-50%	150	NR
Magnesium Sulfate	160	150* ASK	Sodium Hydrosulfide	160	74
Maleic Acid	160	150*	Sodium Hypochlorite 5%	-	-
Mercuric Chloride	160	ASK	Sodium Lauryl Sulfate	160	150
Mercurous Chloride	160	ASK	Sodium Mono-Phosphate	160	150
Methanol (See Alcohol)	160	74*	Sodium Nitrate	160	150
Mineral Oils	160	150	Sodium Silicate	160	74
Molybdenum Disulfide	160	NR*	Sodium Sulfate	160	150
Motor Oil	160	150	Sodium Sulfide	160	74
Myristic Acid	160	ASK	Sodium Sulfite	160	74
Naphtha	160	150	Sodium TetraBorate	160	150
Naphthalene	160	74	Sodium Thiocyanate	160	NR*
Nickel Chloride	160	74	Sodium Thiosulfate	160	74
Nickel Nitrate	160	150	Sodium Tripolyphosphate	160	74
Nickel Sulfate	160	150	Sodium Xylene Sulfonate	160	74
Nitric Acid 0-5%	160	150	Sodium Solutions	160	74
Nitric Acid 20%	120	NR*	Sodium Crude Oil	160	150
Nitric Acid Fumes	NR	NR*	Soya Oil	160	150
Octanoic Acid	160	74	Stannic Chloride	160	150
Oil, Sour Crude	160	150	Stannous Chloride	160	150
Oil, Sweet Crude	160	150	Stearic Acid	160	150
Oleic Acid	160	150	Sugar, Beet and Cane Liquor	160	74
Olive Oil	160	150	Sugar, Sucrose	160	150
Oxalic Acid	160	150	Sulfamic Acid	160	74
Phosphoric Acid	160	150	Sulfanilic Acid	160	74*
Phosphoric Acid Fumes	160	150	Sulfated Detergents	160	74
Phosphorous Pentoxide	160	150	Sulfur Dioxide, Dry or Wet	160	NR*
Phthalic Acid	160	150	Sulfur, Trioxide/Air	160	NR*
Pickling Acids	160	150	Sulfuric Acid 25%	160	150
(Sulfuric and Hydrochloric)			Sulfuric Acid 30-50%	160	NR
Picric Acid, Alcoholic	160	150	Sulfuric Acid 50-70%	120	NR
Polyvinyl Acetate Latex	160	74	Sulfurous Acid 10%	100	NR
Polyvinyl Alcohol	100	74	Superphosphoric Acid (76% P <sup>2</sup> O <sup>5</sup> )	160	74
Polyvinyl Chloride Latex (35)	120	NR*	Tall Oil	150	74
Potassium Aluminum Sulfate	160	150	Tannic Acid	120	74
Potassium Bicarbonate	140	74	Tartaric Acid	160	150
Potassium Bromide	100	74*	Trichloro Acetic Acid 50%	160	74
Potassium Carbonate	-	-	Tricresyl Phosphate	120	NR*
Potassium Chloride	160	150	Tridecylbenzene Sulfonate	160	74*
Potassium Dichromate	140	74*	Trisodium Phosphate	160	74
Potassium Ferricyanide	160	150	Turpentine	100	NR*
Potassium Ferrocyanide	160	150	Urea	140	74
Potassium Hydroxide	-	-	Vegetable Oils	160	150
Potassium Nitrate	160	150	Vinegar	160	150
Potassium Permanganate	140	74	Water:		
Potassium Persulfate	160	74	Deionized	160	150
Potassium Sulfate	160	150	Deminerlized	160	150
Propionic Acid 1-50%	120	NR*	Distilled	160	150
Pulp Paper Mill Effluent	160	74	Fresh	160	150
Sebacic Acid	160	NR*	Salt	160	150
Selenious Acid	160	NR*	Sea	160	150
Silver Nitrate	160	150	White Liquor (Pulp Mill)	160	74
Soaps	160	74	Xylene	NR	NR
Sodium Acetate	160	74	Zinc Chlorate	160	150
Sodium Benzoate	160	74	Zinc Nitrate	160	150
Sodium Bicarbonate	160	74*	Zinc Sulfate	160	150