



MasterFlow® Epoxy Grouts

Chemical Resistance Guide





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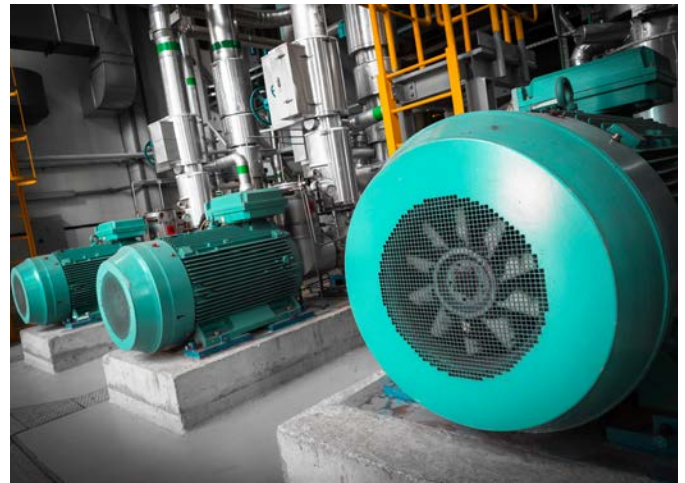
Many years of field experience and laboratory testing have shown that MasterFlow epoxy grouts can be used successfully in a wide variety of chemical environments. The information in this bulletin is based on a long history of successful installations in many types of manufacturing and chemical processing environments.

Rating Descriptions

- N** = Not recommended
R = Resistant, splash and spill
T = Varies with conditions, may require testing

Note: Recommendations are based on temperatures up to 100°F (38°C). If exposure is anticipated at elevated temperatures, or for more specific guidance, please contact your Master Builders Solutions representative.

CHEMICAL COMPOUND	RESISTANCE
Acetaldehyde 100%	R
Acetic Acid 10%	R
Acetic Acid >10%	N
Acetic Anhydride	N
Acetone 100%	R
Acetyl Chloride 100%	T
Acrylic Acid 100%	N
Acrylonitrile	N
Adipic Acid 25%	R
Allyl Alcohol	R
Allyl Chloride	T
Alum (Saturated Solution)	R
Aluminum Bromide	R
Aluminum Chloride	R
Aluminum Nitrate (Saturated)	R
Aluminum Sulfate	R
Ammonia Anhydrous Liquid	R
Ammonia Aqua	See Ammonium Hydroxide
Ammonia (Wet Gas)	R
Ammonium Chloride	R
Ammonium Cocoampholyte 30%	T
Ammonium Fluoride 10%	R
Ammonium Hydroxide 20%	R
Ammonium Lauryl Sulfate 30%	R
Ammonium Nitrate	R
Ammonium Persulfate	R
Ammonium Sulfate	R
Ammonium Sulfide	R
Ammonium Sulfite	R
Ammonium Xylene Sulfonate 40%	R
Amyl Acetate	T



CHEMICAL COMPOUND	RESISTANCE
Amyl Alcohol	R
Aniline	N
Aniline Hydrochloride	T
Anodizing-Chromic	See 10% Chromic Acid
Anodizing-Sulfuric	See 20 - 50% Sulfuric Acid
Antimony Chloride (tri)	R
Aqua Regia	N
Arsenous Acid (Arsenic Trioxide)	T
Barium Chloride	R
Barium Hydroxide	R
Barium Sulfide	R
Benzal Chloride	T
Benzaldehyde	T
Benzene (Benzol)	R
Benzene Sulfonic Acid 50 - 100%	T
Benzene Thiol	N
Benzyl Alcohol	T
Benzoic Acid (Saturated)	R
Benzoyl Chloride	T
Benzyl Chloride	T
Black Liquor (Paper)	R
Boric Acid (Saturated)	R
Bromine, Gas	N
Bromine Water 5%	N
Butanol Normal	R
Butyl Acetate	T
Butyl Acrylate	T
Butyl Amine	N
Butyl Carbitol	R
Butyl Carbitol Acetate	T
Butyl Cellosolve	R
Butyl Cellosolve Acetate	R
Butyl Ether	R
Butyl Acid Levulinic	T
Butyric Acid 100%	N
Cadmium Plating-Cyanide	R
Calcium Bisulfite	R
Calcium Chloride	R
Calcium Hydroxide	R
Calcium Hypochlorite 5%	T
Calcium Nitrate	R
Caprylic Acid (Octanoic Acid)	T
Carbolic Acid (Phenol) 88%	N
Carbon Bisulfide	N
Carbon Tetrachloride	R
Castor Oil	R
Cellosolve	R
Cellosolve Acetate	T
Chloroacetic Acid ≤ 20%	T
Chloroacetic Acid > 20%	N
Chlorine Dioxide Solution	N
Chlorine Gas	N
Chlorine Water (Saturated)	T
Chlorobenzene (Mono)	T
Chlorobutane	T
Chloroform	T
Chlorophenol	T
Chlorosulfonite Acid	N
Chlorotoluene	T
Chromic Acid 10%	R
Chrome Plating 20 - 48 oz / gal	N
Chromic Chloride	R
Citric Acid	R
Copper Plating-Cyanide	R
Copper Plating-Acid	R
Com Oil	R
Cottonseed Oil	R

CHEMICAL COMPOUND	RESISTANCE
Cresol (Cresylic Acid)	N
Cumene	T
Cyclohexane	R
Cymene	R
Dextrose	R
Dibromopropane Phosphate	R
Dibutyl phthalate	R
Dichloroacetic Acid 20%	N
Diethanolamine	N
Diethylene Chloroformate	R
Dlethylketone 100%	T
Dimethylaminopropylamine	N
Dimethyl Aniline	T
Dimethyl Carbamoyl Chloride	R
Dimethyl Carbonyl Chloride	T
Dimethyl Sulfoxide	T
Dinitro Benzene	T
Dinitro Toluene	T
Dioxin	N
Dodecyl Alcohol (Lauryl)	R
Ethanol	See Ethyl Alcohol
Ethoxy Ethanol	R
Ethoxylated Nonyl Phenol	T
Ethyl Acetate	R
Ethyl Acrylate	T
Ethyl Alcohol	R
Ethyl Bromide	T
Ethyl Chloride	T
Ethyl Chloroformate	R
Ethyl Ether	R
Ethyl Hexyl Acrylate	T
Ethylamine	N
Ethylene Dichloride	N
Ethylene Glycol	R
Ethylene Oxide (Dilute)	R
Ethyl Sulfate	R
Ferric Chloride	R
Ferric Sulfate	R
Fertilizer-Dry	R
Fertilizer-Liquid	T
Fluoboric Acid	T
Fluosilicic Acid* 25%	R
Formaldehyde	R
Formic Acid	N
Furfural ≤ 10%	T
Furfuryl Alcohol	R
Gasoline - Aviation	R
Gasoline - Diesel	R
Gasoline - Gasohol (10% MeOH)	R
Gasoline - Unleaded	R
Glucose	R
Glycerine	R
Glycolic Acid to 70%	R
Gold Plating (Cyanide)	R
Grape Juice	R
Green Liquor (Paper)	R
Heptane	R
Hexane	R
Hydrazine 35%	R
Hydrazine Hydrate	T
Hydriotic Acid 20%	T
Hydrobromic Acid 20%	T
Hydrobromic Acid 48%	N
Hydrochloric Acid ≤ 37%	R
Hydrofluoric Acid 10%	R
Hydrofluoric Acid ≥ 20%	N
Hydrofluosilicic Acid ≤ 38%	R

CHEMICAL COMPOUND	RESISTANCE
Hydrogen Peroxide 30%	R
Hydrogen Sulfide Gas	R
Hydrogen Sulfide Wet	R
Hypo (Photographic Solution)	R
Hypochlorous Acid	N
Iodine, Crystals & Vapor	T
Isooctylthioglycolate	T
Isophorone	R
Isopropyl Acetate	R
Isopropyl Alcohol	R
Isopropyl Ether	R
Jet Fuel JP-4	R
Kerosene	R
Ketchup	R
Lactic Acid 20%	R
Lactic Acid concentrated	N
Lard	R
Lauric Acid	T
Lead Acetate	R
Lecithin	R
Levulinic Acid (Saturated)	R
Linseed Oil	R
Lithium Hydroxide 10%	R
Maleic Acid	N
Malic Acid	R
Mercury and Salts	R
Methanol 100%	R
Methyl Acetate	R
Methylamyl Alcohol	R
Methylene Chloride	N
Methyl Chloride	N
Methyl-Ethyl Ketone	R
Methyl Oleate	R
Methyl Isobutyl Ketone	R
Methyl Tertiary Butyl Ether (MTBE)	N
Milk-Fresh & Sour	R
Molasses	R
Muriatic Acid	<i>See Hydrochloric Acid</i>
Naphtha-Aliphatic	R
Naphtha, Aromatic (Coal Tar)	R
Naphthalene (In Benzene)	R
Naphthenic Acid	R
Nickel Plating, Bright	R
Nitric Acid 5%	R
Nitric Acid ≥10%	N
Nitrilotriethanol	R
Nitrobenzene	T
Nitromethane	T
Octanoic Acid	<i>See Caprylic Acid</i>
Octanol	T
Oil-Fuel	R
Oil-Sour Crude Petroleum	R
Oils-Animal	R
Oils-Mineral	R
Oils-Vegetable	R
Oleic Acid	N
Oleum (Sulfuric Acid-Fuming)	N
Oxalic Acid (Saturated)	R
PCB (Polychlorinated Biphenyl)	R
Para Xylene	R
Pelargonic Acid	R
Pentachlorethane	N
Perchloric Acid 30%	T
Perchloroethylene	R
Petroleum, Sour Crude	<i>See Oils</i>
Phenol	N
Phenol Sulfonic Acid 65%	N

CHEMICAL COMPOUND	RESISTANCE
Phosphoric Acid 20%	R
Phosphoric Acid 85%	N
Phosphorous Oxychloride	R
Phosphorous Trichloride	R
Picric Acid 10% in Alcohol	T
Polyacrylic Acid 50%	T
Potassium Acetate	R
Potassium Bichromate	R
Potassium Bromide	R
Potassium Carbonate 25%	R
Potassium Chlorate	R
Potassium Chloride	R
Potassium Cyanide	R
Potassium Fluoride	R
Potassium Hydroxide 10-50%	R
Potassium Nitrate	R
Potassium Permanganate	R
Potassium Persulfate	R
Potassium Sulfate	R
Propanedoil	R
Propionic Acid 100%	N
Propylene Glycol	R
Pyridine	N
Rayon Spin Liquor	R
Salicylaldehyde	R
Salicylic Acid	R
Salt Brine	R
Silicon Tetrachloride	T
Skydrol	T
Sodium Acetate	R
Sodium Bicarbonate	R
Sodium Bisulfate	R
Sodium Bisulfite	R
Sodium Bromate	R
Sodium Carbonate (Saturated)	R
Sodium Chloride	R
Sodium Chlorite (Saturated)	T
Sodium Chromate	R
Sodium Chlorate	R
Sodium Cyanide 15%	R
Sodium Dichromate	R
Sodium Fluoride	R
Sodium Hydrosulfide 45%	R
Sodium Hydroxide 10 - 50%	R
Sodium Hypochlorite 3%	R
Sodium Hypochlorite ≥ 17%	N
Sodium Lauryl Sulfate 20%	R
Sodium Oxalate	R
Sodium Peroxide-Peroxide Bleach	R
Sodium (Acid) Phosphate	R
Sodium Phosphate (Tri)	R
Sodium Polymethacrylate	R
Sodium Sulfate	R
Sodium Sulfide (Saturated)	R
Sodium Sulfite	R
Sodium Tartrate	R
Sodium Thiosulfate (Hypo)	R
Starch	R
Stearic Acid	R
Styrene	R
Sugar	R
Sulfamic Acid 25%	T
Sulfite Liquor (Paper)	R
Sulfur Dioxide (Wet)	R
Sulfur Trioxide (Wet)	R
Sulfuric Acid 10%	R
Sulfuric Acid 25%	R

CHEMICAL COMPOUND	RESISTANCE
Sulfuric Acid 50%	R
Sulfuric Acid ≥ 70%	N
Tall Oil	R
Tannic Acid	R
Tartaric Acid	R
Tetrachloroethane	T
Tetrachloroethylene	<i>See Perchloroethylene</i>
Tetrahydrofuran	N
Tetrahydrofurfuryl Alcohol	R
Thionyl Chloride	N
Tin Plating (Fluoborate)	<i>See Fluoboric Acid</i>
Tin Plating (Stannate)	<i>See Sodium Hydroxide</i>
Toluol (Toluene)	R
Toluene Sulfonic Acid	R
Toluidine	T
Triethylamine	T
Triethylenetetramine	T
Triethyl Phosphite	R
Trichloroacetic Acid 20%	N
Trichlorobenzene (1,2,4-)	R
Trichloroethane	R
Trichloroethylene	R
Tricresyl Phosphate 100%	R
Trisodium Phosphate (Saturated)	R
Turpentine	R
Urea Solutions	R
Vinegar	R
Vinyl Chloride	N
White Liquor, Paper	R
Wine	R
Xylol (Xylene)	R
Zinc Plating-Acid Fluoborate	<i>See Fluoboric Acid</i>
Zinc Plating-Cyanide	<i>See Sodium Hydroxide</i>
Zinc Plating-Acid Sulfate	R

This chemical resistance guide is designed to assist those responsible for proper material selection. This table provides information on the resistance of epoxy grouts to a wide variety of corrosive elements as determined by field experience and laboratory tests.

These are general guidelines and do not constitute direct or implied warranties. Because of the complexity of installations in corrosive service, it is recommended that Master Builders Solutions be consulted for specific recommendations before final selection and installation of a particular epoxy grout.

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