



## Chemical Resistance Guide

Information contained in this guide is based on data collected from several years of actual industrial applications. In addition, this guide is based on conservative evaluation of the changes which occur in certain properties of replicate laminates after exposure of one year or longer, both in the laboratory and the field, according to the American Society for Testing Materials (ASTM C-581).

Temperatures are not the minimum nor the maximum but represents standard test conditions (RT Room Temperature: 70°C of the maximum temperature as noted). The products may be suitable at higher temperatures but individual test data should be required to establish such suitability. Contact Grating Company for any special applications that you may have.

The recommendations or suggestions (R - Resistant: NR - Not Resistant) contained in this guide are made without guarantee or representation as to results. We suggest that you evaluate these recommendations and suggestions in your own laboratory or actual field trial prior to use. Our responsibility for claims arising from breach of warranty, negligence, or otherwise is limited to the purchase price of the material.

### Resin Selection

Uses premium grade isophthalic polyester resin. Series 500 is non-fire retardant. Series 525 is fire retardant and complies with ASTM D635 and UL94 V.O. fire ratings.

#### SERIES 500-525

	Series 500-525			Series 500-525	
	RT	70° C		RT	70° C
ACETALDEHYDE	NR	NR	LITHIUM BROMIDE	R	R
ACETIC ACID 0-25%	R	R	LITHIUM SULFATE	R	R
ACETIC ACID 25-50%	R	NR	MAGNESIUM BISULFITE	R	NR
ACETIC ANHYDRIDE	NR	NR	MAGNESIUM CARBONATE	R	NR
ACETONE	NR	NR	MAGNESIUM CHLORIDE	R	R
ACRYLONITRILE	NR	NR	MAGNESIUM HYDROXIDE	NR	NR
ALCOHOL, BUTYL	NR	NR	MAGNESIUM NITRATE	R	NR
ALCOHOL, ETHYL 10%	NR	NR	MAGNESIUM SULFATE	R	R
ALCOHOL, ETHYL 100%	NR	NR	MALEIC ACID	R	R
ALCOHOL, ISOPROPYL 10%	NR	NR	MERCURIC CHLORIDE	R	NR
ALCOHOL, ISOPROPYL 100%	NR	NR	MERCUROUS CHLORIDE	R	NR
ALCOHOL, METHYL 10%	NR	NR	METHYLENE CHLORIDE	NR	NR
ALCOHOL, METHYL 100%	NR	NR	METHYL ETHYL KETONE	NR	NR
ALCOHOL, METHYL ISOBUTYL	NR	NR	METHYL ISOBUTYL CARBITOL	NR	NR
ALCOHOL, SECONDARY BUTYL	NR	NR	METHANOL (SEE ALCOHOL)	R	NR
ALUM	R	R	METHYL ISOBUTYL KETONE	NR	NR
ALUMINIUM CHLORIDE	R	R	METHYL STYRENE	NR	NR
ALUMINIUM HYDROXIDE	R	R	MINERAL OILS	R	R
ALUMINIUM NITRATE	R	R	MOLYBDENUM DISULFIDE	R	NR

ALUMINIUM POTASSIUM SULFATE	R	R	MONOCHLORO ACETIC ACID	NR	NR
AMMONIA, AQUEOUS 1-10%	NR	NR	MONOETHANOLAMINE	NR	NR
ANNOMIA, GAS	NR	NR	MOTOR OIL	R	R
AMMONIUM BICARBONATE	R	NR	MYRISTIC ACID	-	-
AMMONIUM BISULFITE	NR	NR	NAPHTHA	R	
ANMONIUM CARBONATE	NR	NR	NAPHTHALENE	R	NR
AMMONIUM CITRATE	R	NR	NICKEL CHOLIDE	R	R
AMMONIUM FLUORIDE	NR	NR	NICKEL NITRATE	R	R
AMMONIUM HYROXIDE 5%	R	NR	NICKEL PLATING: (8% LEAD .8% FLUOBORIC ACID .4% BORIC ACID)	NR	NR
AMMONIUM HYROXIDE 10%	R	NR	NICKEL PLATING: (11% NICKEL SULFATE 2% NICKEL CHLORIDE 1% BORIC ACID)	R	NR
AMMONIUM HYDROXIDE 20%	NR	NR	NICKEL PLATING: (44% NICKEL SULFATE 4% AMMONIUM CHLORIDE 4% BORIC ACID)	R	NR
AMMONIUM NITRATE	R	R	NICKEL SULFATE	R	R
AMMONIUM PERSULFATE	NR	NR	NITRIC ACID 0-5%	R	R
AMMONIUM PHOSPATE	NR	NR	NITRIC ACID 20%	NR	NR
AMMONIUM SULFATE	R	R	NITRIC ACID FUMES	NR	NR
ARSENIOUS ACID	R	NR	NIBROBENZENE	NR	NR
O-BENZOYL BENZOIC ACID	NR	NR	OCTANOCI ACID	R	NR
BARIUM CARBONATE	R	NR	OIL, SOUR CRUDE	R	R
BARIUM CHLORIDE	R	NR	OIL, SWEET CRUDE	R	R
BARIUM HYDROXIDE	NR	NR	OLEIC ACIDE	R	R
BARIUM SULFATE	R	R	OLEUM (FUMING SULFURIC)	NR	NR
BARIUM SULFIDE	NR	NR	OLIVE OIL	R	R
BEER	R	NR	OXALIC ACID	R	R
BENZENE	NR	NR	PEROXIDE BLEACH: (2% ODIUM PEROXIDE 95% .025% EPSOM SALTS 5% SODIUM SILICATE 42.BE 1.4% SULFURIC ACID 66.BE)	R	R
5% BENZENE IN KEROSENE	R	NR	PHENOL	NR	NR
BENZENE SULFONIC ACID	R	R	PHENOL SULFONIC ACID	NR	NR
BENZOLIC ACID	R	NR	PHOSPHORIC ACID	R	R
BENZYL ALCOHOL	NR	NR	PHOSPHORIC ACID FUMES	R	R
BENZYL CHLORIDE	NR	NR	PHOSPHOROUS PENTOXIDE	R	R
BRASS PLATING SOLUTION: (3% COPPER CYANIDE 6% SODIUM CYANIDE 1% ZINE CYANIDE 3% SODIUM CARBONATE)	NR	NR	PHOSPHOROUS TRICHLORIDE	NR	NR
BUTYL ACETATE	NR	NR	PHTHALIC ACID	R	R
BUTYRIC ACID 0-50%	R	NR	PICKLING ACIDES (SULFURIC & HYROCHLORIC)	R	R
BUTYLENE GLYCOL	R		PICRIC ACID, ALCOHOLIC	R	R
CADMIUM CHLORIDE	R	NR	POLYVINYL ACETATE LATEX	R	NR
CADMIUM CYANIDE PLATING SOLUTION: (3% CADMIUM OXIDE 6% SODIUM CYANIDE 1% CAUSTIC SODA)	NR	NR	POLYVINYL ALCOHOL	R	NR
CALCIUM BISULFITE	NR	NR	POLYVINYL CHLORIDE LATEX w/35 (PARTS DOP)	NR	NR
CALCIUM CARBONATE	R	R	POTASSIUM ALUMINIUM SULFATE	R	R
CALCIUM CHLORATE	R	NR	POTASSIUM BICARBONATE	R	NR
CALCIUM CHLORIDE	R	R	POTASSIUM BROMIDE	R	NR
CALCIUM HYDROXIDE	R	NR	POTASSIUM CARBONATE	R	NR
CALCIUM HYPOCHLORITE	R	NR	POTASSIUM CHLORIDE	R	R
CALCIUM NITRATE	R	R	POTASSIUM DICHROMATE	R	NR
CALCIUM SULFATE	R	R	POTASSIUM FERRICYANIDE	R	R

CALCIUM SULFITE	R	R	POTASSIUM FERROCYANIDE	R	R
CAPRYLIC ACID	R	NR	POTASSIUM HYDROXIDE	NR	NR
CARBON DIXOIDE	R	R	POTASSIUM NITRATE	R	R
CARBON DISULFIDE	NR	NR	POTASSIUM PERMANGANATE	R	NR
CARBON MONOXIDE	R	R	POTASSIUM PERSULFATE	R	NR
CARBON TETRACHLORIDE	NR	NR	POTASSIUM SULFATE	R	R
CARBON ACID	R	NR	PROPIONIC ACID 1-50%	NR	NR
CASTOR OIL	R	R	PROPIONIC ACID 50-100%	NR	NR
CARBON METHLY CELLULOSE	NR	NR	PROPYLENE GLYCOL	R	R
CHLORINATED WAX	NR	NR	PULP PAPER MILL EFFLUENT	R	NR
CHLORINE DIOXIDE / AIR	R	NR	PYRIDINE	NR	NR
CHLORINE DIOXIDE, WET GAS	NR	NR	SALICYLIC ACID	NR	NR
CHLORINE, DRY GAS	NR	NR	SEBACIC ACID	NR	NR
CHLORINE, WET GAS	NR	NR	SELENIOS ACID	NR	NR
CHLORINE, LIQUID	NR	NR	SILVER NITRATE	R	R
CHLORINE, WATER			SILVER PLATING SOLLUTION: (4% SILVER CYANIDE 7% POTASSIUM CYANIDE 5% SODIUM CYANIDE 2% POTASSIUM CARBONATE)		
	NR	NR		NR	NR
CHLOROACETIC ACID 0-50%	NR	NR	SOAPS	R	NR
CLOROBENZENE	NR	NR	SODIUM ACETATE	R	NR
CLOROFORM	NR	NR	SOCIUM BENZOATE	R	NR
CLOROSULFONIC ACID	NR	NR	SODIUM BICARBONATE	R	R
CHROMIC ACID 20%	NR	NR	SODIUM BIFLUORIDE	R	NR
CHROMIC ACID 30%	NR	NR	SODIUM BISULFATE	R	R
CROMIUM SULFATE	R	R	SODIUM BISULFITE	R	R
CITRIC ACID	R	R	SODIUM BROMATE	R	R
COCONUT OIL	R	NR	SODIUM BROMIDE	R	R
COPPER CHLORIDE	R	R	SODIUM CARBONATE 0-25%	R	NR
COPPER CYANIDE	NR	NR	SODIUM CHLORATE	R	NR
COPPER FLUORIDE	NR	NR	SODIUM CHLORIDE	R	R
COPPER NITRATE	R	R	SODIUM CHLORITE	R	NR
COPPER PLATING SOLUTION: (COPPER CYANIDE 105% COPPER 4% COPPER CYANIDE 6% ROCHELLE SALTS)	NR	NR	SODIUM CHROMITE		
				R	R
COPPER BRITE PLATING (CAUSTIC CYANIDE)	NR	NR	SODIUM CYANIDE	R	NR
COPPER PLATING SOLUTION: (45% COPPER FLUOROBRATE 19% COPPER SULFATE 8% SULFURIC ACID)	NR	NR	SODIUM DICHROMATE		
				R	R
COPPER MATTE DIPPING BATH: (30% FERRIC CHLORIDE 19% HYDROCHLORIC)	NR	NR	SODIUM DI-PHOSPHATE		
				R	R
COPPER PICKLING BATH: (10% FERRIC SULFATE 10% SULFRIC ACID)	NR	NR	SODIUM FERRICYANIDE		
				R	R
COPPER SULFATE	R		SODIUM FLUORIDE	NR	NR
CORN OIL	R	NR	SODIUM FLURO SILICATE	NR	NR
CORN STARTRH-SLURRY			SODIUM HEXAMETAPHOSPHATES		
	R	NR		NR	NR
CORN SUGAR	R	NR	SODIUM HYDROXIDE 0-5%	NR	NR
COTTONSEED OIL	R	NR	SODIUM HYDROXIDE 5-25%	NR	NR
CRUDE OIL, SOIUR	R	NR	SODIUM HYDROXIDE 50%	NR	NR
CRUDE OIL, SEET	R	NR	SODIUM HYDROSULFIDE	R	NR
CYCLOHEXANE	R	NR	SODIUM HYPOCHLORITE	R	NR
DETERGENTS, SULFONATED	R	NR	SODIUM LAURYL SULFATE	R	R
DI-AMMONIUM PHOSPATE	NR	NR	SODIUM MONO-PHOSPHATE	R	R
DIBROMOPHENOL	NR	NR	SODIUM NITRATE	R	R
DIBUTYL ETHER	NR	NR	SODIUM SILICATE	R	NR
DICHLORO BENZENE	NR	NR	SODIUM SULFATE	R	R

DICHLOROETHYLENE	NR	NR	SODIUM SULFIDE	R	NR
DIESEL FUEL	R	NR	SODIUM SULFITE	R	NR
DIETHYLENE GLYCOL	R	NR	SODIUM TETRA BORATE	R	R
DIMETHYL PHTHALATE	NR	NR	SODIUM THIOCYANATE	NR	NR
DIOCTYL PHTHALATE	NR	NR	SODIUM THIOSULFATE	R	NR
DIPROPYLENE GLYCOL	R	NR	SODIUM TRIPOLYPHOSPHATE	R	NR
DODECYL ALCOHOL	NR	NR	SODIUM XYLENE SULFONATE	R	NR
ESTERS, FATTY ACIDS	R	R	SODIUM SOLUTIONS	R	NR
ETHYL ACETATE	NR	NR	SODIUM CRUDE OIL	R	R
ETHYL BENZENE	NR	NR	SOYA OIL	R	R
ETHYL ETHER	NR	NR	STANNIC CHLORIDE	R	R
ETHYLENE GLYCOL	R	R	STANNOUS CHLORIDE	R	R
ETHYLENE DICHLORIDE	NR	NR	STEARIC ACID	R	R
FATTY ACIDS	R	R	STYRENE	NR	NR
FERRIC CHLORIDE	R	R	SUGAR, BEET AND CANE LIQUOR	R	NR
FERRIC NITRATE	R	R	SUGAR, SUCROSE	R	R
FERRIC SULFATE	R	R	SULFAMIC ACID	R	NR
FEROUS CHLORIDE	R	R	SULFANILIC ACID	R	NR
FEROUS NITRATE	R	R	SULFATED DETERGENTS	R	NR
FEROUS SULFATE	R	R	SULFUR DIOXIDE, DRY OR WET	NR	NR
8-8-8 FERTILISER	R	NR	SULFUR TRIOXIDE/AIR	NR	NR
FERTILISER: (UREA AMMONIUM NITRATE)	NR	NR	SULFURIC ACID 0-30%	R	R
FUEL GAS	NR	NR	SULFURIC ACID 30-50%	NR	NR
FLUOBORIC ACID	NR	NR	SULFURIC ACID 50-70%	NR	NR
FLUOSILICIC ACID 0-20%	NR	NR	SULFUROUS ACID	NR	NR
FORMALDHYDE	R	NR	SUPERPHOSPHORIC ACID (76% P <sup>2</sup> O <sub>5</sub> )	R	NR
FORMIC ACID	R	NR	TALL OIL	R	NR
FUEL OIL	R	NR	TANNIC ACID	R	NR
GAS NATURAL	R	NR	TARTARIC ACID	R	R
GASOLINE AUTO	R	NR	THIONYL CHLORIDE	NR	NR
GASOLINE, AVIATION	R	NR	TIN PLATING: (18% STANNOUS FLUORBORATE 7% TIN 9% FLUOROBORIC ACID 2% BORIC ACID)	NR	NR
GASOLINE, ETHYL	R	NR	TOLUENE	NR	NR
GLUCONIC ACID	R	NR	TOLUENE SOLFONIC ACID	NR	NR
GASOLINE, SOUR	R	NR	TRANSFORMER OILS: (MINERAL OIL TYPES CHLORO-PHENYL TYPES)	R	R
GLUCOSE	R	R	TRICHLOR ACETIC ACID		NR
GLYCERINE	R	R	TRICHLOROETHYLENE	NR	NR
GLYCOLO, ETHYLENE	R	R	TRICHLOROPENOL	NR	NR
GLYCOL, PROPYLENE	R	R	TRICRESYL PHOSPHATE	NR	NR
GLYCOLIC ACID	R	NR	TRIDECYBENZENE SULFONATE	R	NR
GOLD PLATING SOLUTION: (63% POTASSIUM FERROCYANIDE 2% POTASSIUM GOLD CYANIDE 8% SODIUM CYANIDE)	NR	NR	TRISODIUM PHOSPHATE	R	NR
HEPTANE	R	NR	TURPENTINE	NR	NR
HEXANE	R	NR	UREA	NR	NR
HEXYLENE GLYCOL	R	R	VEGETABLE OILS	R	R
HYDRAULIC FLUID	R	NR	VINEGAR	R	R
HYDROBROMIC ACID 0-25%	R	NR	VINYL ACETATE	NR	NR
HYDROCHLORIC ACID 0-37%	R	NR	WATER: DEIONISED	R	R
HYDROCYANIC ACID	R	NR	WATER: DEMINERALISED	R	R
HYDROFLUORIC ACID 10%	NR	NR	WATER: DISTILLED	R	R
HYDROFLUOSILICIC ACID 10%	NR	NR	WATER: FRESH	R	R
HYDROGEN BROMIDE, WET GAS	NR	NR	WATER: SALT	R	R

HYDROGEN CHLORIDE DRY GAS	NR	NR	WATER: SEA	R	R
HYDROGEN CHLORIDE, WET GAS	NR	NR	WHITE LIQUOR (PULP MIL)	R	NR
HYDROGEN PEROXIDE	NR	NR	XYLENE	NR	NR
HYDROGEN SULFIDE, DRY	R	NR	ZINC CHLORATE	R	R
HYDROGEN SULFIDE, AQUEOUS	R	NR	ZINC NITRATE	R	R
HYDROGEN FLUORIDE, VAPOUR	NR	NR	ZINC PLATING SOLUTION: (9% ZINC CYANIDE 4% SODIUM CYANIDE 9% SODIUM HYROXIDE)	NR	NR
HYDROSULFITE BLEACH	NR	NR	ZINC PLATING SOLUTION: (49% ZINC FLUOROBORATE 5% AMMONIUM CHLORIDE 6% AMMONIUM FLUOROBORATE)	R	NR
HYDROCHLORUS ACID 0-10%	NR	NR	ZINC SULFATE	R	R
IRON PLATING SOLUTION: (45% FECL; 15% CAL 20% FECL: 11% (NH <sub>4</sub> ) <sup>2</sup> S <sub>04</sub> )	NR	NR	ZINC PLATING SOLUTION: (9% ZINC CYANIDE 4% SODIUM CYANIDE 9% SODIUM HYROXIDE)	NR	NR
IRON AND STEEL CLEANING BATH: (9% HYDROCHLORIC 23% SULFURIC)	NR	NR	ZINC PLATING SOLUTION: (49% ZINC FLUOROBORATE 5% AMMONIUM CHLORIDE 6% AMMONIUM FLUOROBORATE)	R	NR
ISOPROPYL AMINE	NR	NR	ZINC SULFATE	R	R
ISOPROPYL PALMITATE	R	R	XYLENE	NR	NR
JET FUEL	R	NR	ZINC CHLORATE	R	R
KEROSENE	R	NR	ZINC NITRATE	R	R
LACTIC ACID	R	NR	ZINC PLATING SOLUTION: (9% ZINC CYANIDE 4% SODIUM CYANIDE 9% SODIUM HYROXIDE)	NR	NR
LAUROYL CHLORIDE	NR	NR	ZINC PLATING SOLUTION: (49% ZINC FLUOROBORATE 5% AMMONIUM CHLORIDE 6% AMMONIUM FLUOROBORATE)	R	NR
LAURIC ACID	R	NR	ZINC SULFATE	R	R
LEAD ACETATE	R	NR	XYLENE	NR	NR
LEAD CHLORIDE	R	NR	ZINC CHLORATE	R	R
LEAD NITRATE	R	NR	ZINC NITRATE	R	R
LEAD PLATING SOLUTION: (.8% FLUOBORIC ACID .4% BORIC ACID)	NR	NR	ZINC PLATING SOLUTION: (9% ZINC CYANIDE 4% SODIUM CYANIDE 9% SODIUM HYROXIDE)	NR	NR
LEVULINIC ACID	R	NR	ZINC PLATING SOLUTION: (49% ZINC FLUOROBORATE 5% AMMONIUM CHLORIDE 6% AMMONIUM FLUOROBORATE)	R	NR
LINSEED OIL	R	R	ZINC SULFATE	R	R

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