

| Chemical environment | | Concentration | Temperature | GRP molded gratings | | | |
|----------------------------------|---|---------------|-------------|---------------------|-------------|--------|-------|
| | | % | °C | VE-FR | Super VE-FR | ISO-FR | FD-FR |
| ACETIC ACID | CH ₃ COOH | 50 | MAX | C | C | C | C |
| ACETONE | CH ₃ COCH ₃ | 100 | 23,9 | S | S | I | I |
| ALCOHOLS | General | 100 | 48,9 | C | C | I | I |
| ALUM | Al ₂ (SO ₄) ₃ | ALL | MAX | C | C | C | C |
| ALUMINUM CHLORIDE | AlCl ₃ | ALL | MAX | C | C | C | C |
| ALUMINUM FLUORIDE | Al(OH) ₃ | 20 | 23,9 | C | C | I | I |
| AMMONIUM HYDROXIDE | NH ₄ OH | 30 | 23,9 | C | C | N | N |
| AMMONIUM SALTS-NEUTRAL | General | ALL | 48,9 | C | C | C | C |
| AMMONIUM SALTS-AGGRESSIVE | General | ALL | 23,9 | S | C | I | I |
| AROMATIC SOLVENTS | General | ALL | 23,9 | T | T | N | N |
| BARIUM SALTS | General | ALL | MAX | C | C | C | C |
| BENZENE | C ₆ H ₆ | 100 | 60 | I | S | I | I |
| BLACK LIQUOR (pulp mill) | HCN | ALL | MAX | C | C | I | I |
| BLEACH LIQUOR (pulp mill) | NaOCl | ALL | MAX | C | C | I | I |
| CALCIUM HYDROXIDE | Ca(OH) ₂ | 25 | MAX | C | C | S | S |
| CALCIUM HYPOCHLORITE | Ca(ClO) ₂ | ALL | MAX | C | C | I | I |
| CALCIUM SALTS | General | ALL | MAX | C | C | C | C |
| CARBON TETRACHLORIDE | CCl ₄ | 100 | 23,9 | C | C | I | I |
| CHLORINATED HYDROCARBONS | General | 100 | 23,9 | T | T | T | T |
| CHLORINE DIOXIDE | ClO ₂ | SAT | 60 | C | C | N | N |
| CHLORINE WATER | Cl ₂ (H ₂ O)(HOCl) | SAT | 48,9 | C | C | I | I |
| CHLORINE, WET | Cl(H ₂ O) | SAT | MAX | C | C | N | N |
| CHLOROBENZENE | C ₆ H ₅ Cl | 100 | 23,9 | S | S | N | N |
| CHLOROBENZENE | C ₆ H ₅ Cl | ALL | Up to 37,8 | C | C | N | N |
| CHLOROFORM | CHCl ₃ | 100 | 23,9 | N | N | N | N |
| CHROMIC ACID | CrO ₃ | 50 | 60 | S | S | S | S |
| CITRIC ACID | | ALL | MAX | C | C | C | C |
| COPPER CYANIDE PLATING | Cu(CN) ₂ | ALL | 51,7 | C | C | S | S |
| COPPER SALTS | General | ALL | MAX | C | C | C | C |
| CRUDE OIL (sweet or sour) | General | ALL | MAX | C | C | C | C |
| DICHLOROBENZENE | C ₆ H ₄ Cl ₂ | 100 | 23,9 | T | S | N | N |
| ETHERS | General | | 23,9 | T | T | N | N |
| FERRIC CHLORIDE | FeCl ₃ | 100 | MAX | C | C | C | C |
| FERRIC SALTS | General | ALL | MAX | C | C | C | C |
| FLUORIDE SALTS + HCl | General | ALL | 23,9 | C | C | S | S |
| FLUOSILICIC ACID | H ₂ SiF ₆ | 10 | 23,9 | C | C | S | S |
| FORMALDEHYDE | HCHO | 37 | 65,6 | C | C | I | I |
| FORMIC ACID | HCOOH | 25 | 37,8 | C | C | S | S |
| FUEL (diesel, jet, gasoline) | General | ALL | 37,8 | C | C | C | C |
| GLYCERINE | (CH ₂ OH) ₂ CHOH | 100 | MAX | C | C | C | C |
| GREEN LIQUOR (pulp mill) | | ALL | MAX | C | C | N | N |
| HYDROBROMIC ACID | HBr | 48 | MAX | S | S | S | S |
| HYDROCHLORIC ACID | HCl | 10 | MAX | C | C | S | S |
| HYDROCHLORIC ACID | HCl | 30 | MAX | CS | C | S | S |
| HYDROCHLORIC ACID (concentrated) | HCl | ALL | Up to 82,2 | I | C | N | N |
| HYDROCYANIC ACID | HCN | ALL | MAX | C | C | I | I |

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S = Frequent exposure of the grating to splashes and spills from the chemical environment listed with that environment at the temperature listed.

I = Infrequent exposure of the grating to splashes and spills from the chemical environment listed with that environment at the temperature listed and the spill immediately cleaned up or washed from the grating.

N = Not recommended for the concentrations and temperatures listed.

T = Test.

Super VE-FR series may require benzoyl peroxide-DMA cure system to increase life.

Consult Narviplastx for corrosion recommendations at concentrations, temperatures or chemicals not listed in this guide.

Max recommended operating temp is 82°C for VE-FR, 65° C for ISO-FR series, and FD-FR series.

The information in this Chemical Resistance Guide is correct to the best of Narviplastx's 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.

Narviplastx's responsibility for claims arising from breach of warranty, negligence or otherwise

is limited to the purchase price of the material sold by Narviplastx. Test coupons are available upon specific request.

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|------------------------------------|---|---------------------------|-------------|---------------------|-------------|--------|-------|
| | | % | °C | VE-FR | Super VE-FR | ISO-FR | FD-FR |
| HYDROFLUORIC ACID | HF | 20 | 23,9 | S | C | N | N |
| HYDROGEN PEROXIDE | H ₂ O ₂ | 30 | 23,9 | C | C | N | N |
| LACTIC ACID | CH ₃ CHOHCOOI | 100 | MAX | C | C | C | C |
| LIME SLURRY | | SAT | MAX | C | C | C | C |
| LITHIUM SALTS | General | ALL | MAX | C | C | C | C |
| MAGNESIUM SALTS | General | ALL | MAX | C | C | C | C |
| MALEIC ACID | (HC.COOH) ₂ | 100 | MAX | C | C | S | S |
| MERCURY CHLORIDE | HgCl ₂ | 100 | MAX | C | C | C | C |
| NICKEL SALT | | ALL | MAX | C | C | C | C |
| NITRIC ACID | HNO ₃ | 20 | 48,9 | C | C | S | S |
| NITRIC ACID | HNO ₃ | 35 | 37,8 | C | C | N | N |
| NITRIC ACID | HNO ₃ | 40 | Ambient | I | C | N | N |
| NITRIC, HYDROFLUORIC | | 20:2 | 23,9 | I | C | N | N |
| NITROUS ACID | | 10 | 23,9 | C | C | C | C |
| OZONE for SEWAGE TREATMENT | | | 37,8 | C | C | C | C |
| PERCHLOROETHYLENE | CCl ₂ | 100 | 23,9 | S | C | N | N |
| PHENOL | C ₆ H ₅ OH | 10 | 23,9 | C | C | N | N |
| PHENOL | C ₆ H ₅ OH | 88 | Ambient | S | C | N | N |
| PHOSPHORIC ACID | H ₃ PO ₄ | 85 | MAX | C | C | C | C |
| PHOSPHORIC ACID, super | H ₃ PO ₄ | 115 | MAX | C | C | I | I |
| POTASSIUM HYDROXIDE | KOH | 10 | 48,9 | C | C | I | I |
| POTASSIUM SALTS | General | ALL | MAX | C | C | C | C |
| SILVER NITRATE | AgNO ₃ | 100 | MAX | C | C | C | C |
| SODIUM CYANIDE | NaCN | ALL | 23,9 | C | C | I | I |
| SODIUM HYDROXIDE | NaOH | 10 | MAX | C | C | I | I |
| SODIUM HYDROXIDE | NaOH | 50 | MAX | C | C | N | N |
| SODIUM HYPOCHLORITE (stable) | NaOCl | 10 | 37,8 | C | C | S | S |
| SODIUM SALTS-NEUTRAL | General | ALL | MAX | C | C | C | C |
| SODIUM SALT-AGGRESSIVE | SO ₂ | ALL | 23,9 | S | C | I | I |
| SULFUR DIOXIDE | H ₂ SO ₄ | SAT | MAX | C | C | S | S |
| SULFURIC ACID | H ₂ SO ₄ | 25 | MAX | C | C | S | S |
| SULFURIC ACID | H ₂ SO ₄ | 50 | MAX | C | C | S | S |
| SULFURIC ACID | H ₂ SO ₄ | 75 | 37,8 | C | C | I | I |
| TOLUENE | C ₆ H ₅ CH ₃ | 100 | 48,9 | S | C | I | I |
| TRICHLOROETHANE 1,1,1 | CICH ₂ CHCl ₂ | ALL | 23,9 | S | C | I | I |
| TRISODIUM PHOSPHATE | Na ₃ PO ₄ | 50 | MAX | C | C | I | I |
| WATER (fresh, salt, moderate D.I.) | H ₂ O | 100 | MAX | C | C | C | C |
| WET CHLORINE/hydrochloric acid | | 10-20 | Up to 176,7 | S | C | N | N |
| WHITE LIQUOR (pulp mill) | ZnCl ₂ | ALL | MAX | C | C | I | I |
| ZINC CHLORIDE PLATING | | ALL | 23,9 | C | C | S | S |
| ZINC SALTS | | 100 | MAX | C | C | C | C |

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