

# GRP Chemical Resistance

## ISO Datasheet



| Environment          | Concentration % | Temp °C | Vinyl | T <sub>Vinyl</sub> | ISO | GPI | Pultruded Vinyl | Grated ISO |
|----------------------|-----------------|---------|-------|--------------------|-----|-----|-----------------|------------|
| Acetic Acid          | 25              | MAX     | C     | C                  | C   | S   | C               | C          |
| Acetic Acid          | 50              | MAX     | C     | C                  | C   | S   | C               | C          |
| Aluminum Hydroxide   | ALL             | MAX     | C     | C                  | C   | C   | C               | C          |
| Ammonium Chloride    | ALL             | 48.8    | C     | C                  | C   | C   | C               | C          |
| Ammonium Bicarbonate | 15              | 48.8    | C     | C                  | C   | S   | S               | C          |
| Ammonium Bicarbonate | 50              | 48.8    | C     | C                  | C   | S   | S               | I          |
| Ammonium Hydroxide   | 20              | 26.6    | S     | C                  | N   | N   | I               | N          |
| Ammonium Sulphate    | ALL             | 48.8    | C     | C                  | C   | C   | C               | S          |
| Benzene              | 100             | 65.5    | I     | S                  | I   | N   | I               | N          |
| Benzoic Acid (SAT)   | SAT             | MAX     | C     | C                  | C   | S   | C               | C          |
| Borax (SAT)          | SAT             | MAX     | C     | C                  | C   | S   | C               | S          |
| Calcium Carbonate    | ALL             | MAX     | C     | C                  | C   | S   | C               | C          |
| Calcium Nitrate      | ALL             | MAX     | C     | C                  | C   | C   | C               | C          |
| Carbon Tetrachloride | 100             | 26.6    | I     | C                  | N   | N   | I               | N          |
| Chloride, Dry Gas*   | ALL             | MAX     | C     | C                  | C   | S   | C               | S          |
| Chloride Water (SAT) | SAT             | 48.8    | C     | C                  | I   | N   | I               | N          |
| Chromic Acid         | 50              | 65.5    | I     | S                  | N   | N   | I               | N          |
| Citric Acid          | ALL             | MAX     | C     | C                  | C   | C   | C               | C          |
| Copper Chloride      | ALL             | MAX     | C     | C                  | C   | C   | C               | C          |
| Copper Cyanide       | ALL             | 60      | C     | C                  | S   | I   | S               | I          |
| Copper Nitrate       | ALL             | MAX     | C     | C                  | C   | C   | C               | C          |
| Ethanol              | 10              | 48.8    | C     | C                  | S   | S   | C               | S          |
| Ethanol              | 50              | 48.8    | C     | C                  | I   | I   | C               | I          |
| Ethylene Glycol      | ALL             | MAX     | C     | C                  | C   | S   | C               | S          |
| Ferric Chloride      | 100             | MAX     | C     | C                  | C   | C   | C               | C          |
| Ferrous Chloride     | ALL             | MAX     | C     | C                  | C   | C   | C               | C          |

### FOR MORE INFORMATION

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|------------------------|----------------|---------|-------|--------------------|-----|-----|-----------------|------------|
| Formaldehyde 0-50%     | 50             | 48.8    | S     | C                  | I   | I   | S               | I          |
| Gasoline               | ALL            | 48.8    | C     | C                  | C   | S   | C               | S          |
| Glucose                | ALL            | 48.8    | C     | C                  | C   | C   | C               | C          |
| Glycerine              | 100            | MAX     | C     | C                  | C   | S   | C               | S          |
| Hydrobromic Acid       | 50             | MAX     | S     | S                  | S   | I   | I               | N          |
| Hydrobromic Acid       | 10             | MAX     | I     | C                  | S   | I   | I               | I          |
| Hydrobromic Acid       | 37             | MAX     | I     | C                  | S   | I   | I               | I          |
| Hydrogen Peroxide      | 30             | 26.6    | C     | C                  | N   | N   | S               | N          |
| Lactic Acid            | 100            | MAX     | C     | C                  | C   | C   | C               | C          |
| Lithium Chloride (SAT) | SAT            | MAX     | N     | C                  | N   | N   | N               | N          |
| Magnesium Chlorides    | ALL            | MAX     | C     | C                  | C   | C   | C               | C          |
| Magnesium Nitrate      | ALL            | MAX     | C     | C                  | C   | C   | C               | C          |
| Magnesium Sulphate     | ALL            | MAX     | C     | C                  | C   | C   | C               | C          |
| Mercuric Chloride      | ALL            | MAX     | C     | C                  | C   | C   | C               | C          |
| Mercurous Chloride     | ALL            | MAX     | C     | C                  | C   | S   | C               | S          |
| Nickel Chloride        | ALL            | MAX     | C     | C                  | C   | C   | C               | C          |
| Nickel Sulphate        | ALL            | MAX     | C     | C                  | C   | C   | C               | C          |
| Nitric Acid            | 20             | 48.8    | S     | C                  | S   | I   | I               | I          |
| Oxalic Acid            | ALL            | 65.5    | C     | C                  | C   | S   | C               | S          |
| Perchloric Acid        | 30             | 32.2    | S     | C                  | I   | I   | I               | I          |
| Phosphoric Acid        | 80             | MAX     | C     | C                  | C   | C   | C               | S          |
| Potassium Chloride     | ALL            | MAX     | C     | C                  | C   | C   | C               | C          |
| Potassium Dichromate   | ALL            | MAX     | C     | C                  | C   | C   | C               | C          |
| Potassium Nitrate      | ALL            | MAX     | C     | C                  | C   | C   | C               | C          |
| Potassium Sulphate     | ALL            | MAX     | C     | C                  | C   | C   | C               | C          |

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|                  |     |     |   |   |   |   |   |   |
|------------------|-----|-----|---|---|---|---|---|---|
| Propylene Glycol | ALL | MAX | C | C | C | S | C | S |
| Sodium Acetate   | ALL | MAX | C | C | C | C | C | C |

| Environment       | Concentration% | Temp °C | Vinyl | T <sub>Vinyl</sub> | ISO | GPI | Pultruded Vinyl | Grated ISO |
|-------------------|----------------|---------|-------|--------------------|-----|-----|-----------------|------------|
| Sodium Bisulphate | ALL            | 26.6    | S     | C                  | S   | I   | C               | I          |
| Sodium Bromide    | ALL            | 26.6    | S     | C                  | S   | I   | C               | I          |
| Sodium Cyanide    | ALL            | 26.6    | C     | C                  | I   | I   | S               | I          |
| Sodium Hydroxide  | 10             | MAX     | C     | C                  | I   | N   | I               | N          |
| Sodium Hydroxide  | 50             | MAX     | S     | C                  | N   | N   | N               | N          |
| Sodium Nitrate    | ALL            | MAX     | C     | C                  | C   | C   | C               | C          |
| Sodium Sulphate   | ALL            | MAX     | C     | C                  | C   | C   | C               | C          |
| Sulphuric Acid    | 10             | MAX     | C     | C                  | S   | S   | C               | S          |
| Sulphuric Acid    | 25             | MAX     | C     | C                  | S   | S   | S               | I          |
| Sulphuric Acid    | 75             | 37.7    | C     | C                  | I   | I   | I               | N          |
| Tartaric Acid     | ALL            | MAX     | C     | C                  | C   | S   | C               | S          |
| Vinegar           | ALL            | MAX     | C     | C                  | C   | S   | C               | S          |
| Water Distilled   | ALL            | MAX     | C     | C                  | C   | C   | C               | C          |
| Zinc Nitrate      | 100            | MAX     | C     | C                  | C   | C   | C               | C          |
| Zinc Sulphate     | 100            | MAX     | C     | C                  | C   | C   | C               | C          |

T = Transparent

C = Continuous exposure of the grating to the Chemical Environment listed at the temperature listed

S = Frequent exposure of the grating to splashes and spills from the Chemical Environment listed with the environment at the listed temperature

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

N = Not recommended for the concentrations and the temperatures listed

MAX temperature is 115°C for transparent vinyl moulded grating, 85°C for moulded vinyl grating and pultruded vinyl grating, 71.1°C for moulded ISO grating and 65.5°C for moulded GPI grating.

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