

## Corrosion Guide for Relinea's *RE-STRUCT* Pultruded Profiles

CHEMICAL ENVIRONMENT	CONCENTRATION (%)	RESIN TYPE	
		ISOPHTHALIC	VINYLESTER
		MAX OPERATING TEMPERATURE (°C)	
Acetaldehyde	All	N/R	N/R
Acetic Acid	25	25	95
Acetic Acid	75	N/R	65
Acetic Acid	100	N/R	N/R
Acetic Anhydride	All	N/R	N/R
Acetone	100	N/R	N/R
Acrylonitrile	All	N/R	N/R
Alcohol, Butyl	All	25	50
Alcohol, Ethyl	10	N/R	65
Alcohol, Ethyl	100	N/R	30
Alcohol, Isopropyl	10	N/R	65
Alcohol, Isopropyl	100	N/R	25
Alcohol, Methyl	10	N/R	65
Alcohol, Methyl	100	N/R	N/R
Aluminium Chloride	All	60	95
Aluminium Hydroxide	5	25	50
Aluminium Nitrate	All	30	70
Aluminium Potassium	All	40	70
Ammonium AQ	10	N/R	35
Ammonium Gas	All	N/R	35
Ammonium Bicarbonate	10	25	50
Ammonium Bisulphite	All	N/R	50
Ammonium Carbonate	All	N/R	50
Ammonium Citrate	All	35	50
Ammonium Fluoride	All	N/R	50
Ammonium Hydroxide	5	25	50
Ammonium Hydroxide	10	25	50
Ammonium Hydroxide	20	N/R	50
Ammonium Nitrate	20	35	70
Ammonium Persulphate	All	N/R	50
Ammonium Phosphate	All	N/R	50
Ammonium Sulphate	All	70	95
Barium Acetate	All	N/R	80
Barium Chloride	All	50	95
Barium Hydroxide	All	N/R	50
Benzene	All	N/R	N/R

CHEMICAL ENVIRONMENT	CONCENTRATION (%)	RESIN TYPE	
		ISOPHTHALIC	VINYLESTER
		MAX OPERATING TEMPERATURE (°C)	
Benzene Sulphonic Acid	50	25	60
Benzoic Acid	All	25	95
Benzyl Alcohol	All	N/R	25
Benzyl Chloride	All	N/R	N/R
Butyl Acetate	All	N/R	N/R
Butyric Acid	0-50%	25	95
Butylene Glycol	All	25	70
Cadmium Chloride	All	25	80
Calcium Chlorate	All	50	80
Calcium Chloride	All	50	80
Calcium Hydroxide	All	-	50
Calcium Hypochlorite	All	25	50
Calcium Nitrate	All	40	95
Carbon Dioxide	All	95	95
Carbon Disulphide	All	N/R	N/R
Carbon Monoxide	All	95	95
Carbon Tetrachloride	All	N/R	40
Castor Oil	All	25	70
Chlorine / Dry Gas	All	N/R	70
Chlorine / Wet Gas	All	N/R	70
Chlorine, Liquid	All	N/R	N/R
Chlorine, Water	All	N/R	75
Chlorobenzene	All	N/R	N/R
Chromic Acid	20	N/R	50
Chromic Acid	30	N/R	N/R
Chromium Sulphate	All	70	70
Citric Acid	All	70	70
Copper Sulphate	All	70	70
Corn Oil	All	25	80
Crude Oil	All	25	70
Cyclohexane	All	25	50
Dibromo Phenol	All	N/R	N/R
Dibutyl Ether	All	N/R	50
Dichloro Benzene	All	N/R	N/R
Dichloro Ethylene	All	N/R	N/R
Diesel Fuel	All	40	80
Diethylene Glycol	All	60	80
Dipropylene Glycol	All	60	80

CHEMICAL ENVIRONMENT	CONCENTRATION (%)	RESIN TYPE	
		ISOPHTHALIC	VINYLESTER
		MAX OPERATING TEMPERATURE (°C)	
Esters – Fatty Acids	All	70	70
Ethyl Acetate	All	N/R	N/R
Ethyl Benzene	All	N/R	25
Ethyl Ether	All	N/R	N/R
Ethylene Glycol	All	25	95
Ethylene Dichloride	All	N/R	N/R
Fatty Acids	All	25	95
Ferric Chloride	All	50	95
Ferrous Nitrate	All	50	95
Ferrous Sulphate	All	50	95
Fertiliser – Urea (Ammonium Nitrate)	All	N/R	50
Formic Acid	10	25	70
Fuel Oil	All	25	70
Gasoline	All	25	50
Glucose	All	70	70
Glycerine	All	50	70
Glycolic Acid	All	25	80
Heptane	All	25	70
Hexane	All	25	70
Hydraulic Fluid	All	25	70
Hydrochloric Acid	10	25	80
Hydrochloric Acid	37	N/R	65
Hydrofluoric Acid	10	N/R	65
Hydrofluoric Acid	20	N/R	35
Hydrogen Bromide, Wet Gas	All	N/R	70
Hydrogen Chloride, Dry Gas	All	N/R	-
Hydrogen Chloride – Wet Gas	All	N/R	80
Hydrogen Peroxide	30	N/R	50
Hydrogen Sulphide, aqueous	All	25	60
Isopropyl Amine	All	N/R	40
Kerosene	All	25	80
Lactic Acid	All	25	95
Lauryl Chloride	All	N/R	70

CHEMICAL ENVIRONMENT	CONCENTRATION (%)	RESIN TYPE	
		ISOPHTHALIC	VINYLESTER
		MAX OPERATING TEMPERATURE (°C)	
Lead Acetate	All	60	90
Linseed Oil	All	50	90
Magnesium Chloride	All	50	90
Magnesium Hydroxide	All	N/R	60
Magnesium sulphate	All	50	90
Maleic Acid	All	70	90
Methylene Chloride	All	N/R	N/R
Methyl Ethyl Ketone	All	N/R	N/R
Methyl Isobutyl Ketone	All	N/R	N/R
Methyl Styrene	All	N/R	N/R
Mineral Oils	All	70	90
Motor Oils	All	70	90
Naptha	All	25	90
Nickel Chloride	All	50	90
Nickel Nitrate	All	50	90
Nickel Sulphate	All	50	90
Nitric Acid	5	35	70
Nitric Acid	20	N/R	50
Nitric Acid Fumes	All	N/R	60
Oil, Sour Crude	All	50	90
Oil, Sweet Crude	All	50	90
Oleum	All	N/R	N/R
Olive Oil	All	60	90
Oxalic Acid	All	60	90
Phenol	All	N/R	N/R
Phenol, Sulphonic Acid	All	N/R	N/R
Phosphoric Acid	50	25	90
Phosphorous Trichloride	All	N/R	N/R
Polyvinyl Alcohol	All	30	40
Potassium Bicarbonate	All	25	60
Potassium Carbonate	10	25	60
Potassium Chloride	All	40	90
Potassium Hydroxide	10	N/R	65
Potassium Permanganate	All	25	70
Potassium Sulphate	All	25	70
Propionic Acid	50	N/R	50
Propionic Acid	100	N/R	N/R
Propylene Glycol	All	50	90
Pyridine	All	N/R	N/R

CHEMICAL ENVIRONMENT	CONCENTRATION (%)	RESIN TYPE	
		ISOPHTHALIC	VINYLESTER
		MAX OPERATING TEMPERATURE (°C)	
Silver Nitrate	All	25	70
Soaps	All	25	60
Sodium Acetate	All	50	70
Sodium Bicarbonate	All	40	80
Sodium Bifluoride	All	40	50
Sodium Bisulphate	All	60	95
Sodium Bisulphite	All	60	95
Sodium Bromide	All	60	95
Sodium Carbonate	10	N/R	70
Sodium Chlorate	10	25	70
Sodium Chloride	All	40	70
Sodium Cyanide	All	25	60
Sodium Dichromate	All	25	70
Sodium Ferricyanide	All	40	70
Sodium Fluorosilicate	All	N/R	40
Sodium Hydroxide	5	N/R	70
Sodium Hydroxide	25	N/R	65
Sodium Hydroxide	50	N/R	60
Sodium Hypochlorite	10	25	55
Sodium Lauryl Sulphate	All	60	70
Sodium Mono Phosphate	All	60	95
Sodium Nitrate	All	25	95
Sodium Sulphite	All	25	95
Sodium Thiocyanate	All	N/R	70
Sodium Thiosulphate	All	30	70
Soya Oil	All	60	95
Stannic Chloride	All	50	95
Stearic Acid	All	25	95
Styrene	All	N/R	N/R
Sugar Liquor	All	25	70
Sulphur Dioxide, Dry or Wet	All	N/R	70
Sulphuric Acid	30	25	70
Sulphuric Acid	50	N/R	50
Sulphuric Acid	70	N/R	40
Tannic Acid	All	30	65
Toluene	All	N/R	25
Transformer Oils – Mineral	All	60	90

CHEMICAL ENVIRONMENT	CONCENTRATION (%)	RESIN TYPE	
		ISOPHTHALIC	VINYLESTER
		MAX OPERATING TEMPERATURE (°C)	
Transformer Oils – Chloro Phenyl Types	All	N/R	N/R
Trichloroacetic Acid	50	25	90
Trichloroethylene	All	N/R	N/R
Trisodium Phosphate	All	25	70
Turpentine	All	N/R	40
Urea	50	N/R	40
Vegetable Oils	All	40	70
Vinyl Acetate	All	N/R	N/R
Water – Demineralised	All	50	80
Xylene	All	N/R	N/R
Zinc Nitrate	All	60	90
Zinc Sulphate	All	50	90

N/R – Not recommended

The information in the Corrosion Guide is correct to the best of Relinea’s knowledge. No warranty is expressed or implied, including warranty of merchantability or fitness for any specific application. In no event will Relinea be liable for incidental or consequential damages arising from alleged negligence, strict liability or otherwise. As actual use conditions differ and mixtures of corrosives will occur in service please contact Relinea. The user must test for use and applicability under actual conditions. Test coupons are available upon request.