

**MEISER**<sup>®</sup>

GRP Element Resistance



Element	Concentration	Isophthal	Vinyl ester
Acetone	25 %	P50	P80
Acrylic acid	100 %	Fumes	°
Aluminium chloride	Saturated	P75	P90
Formic acid	10 %	Z30	P65
	50 %	Z30	P45
Ammonia	Gas	P65	P45
Ammonium acetate		P25	P45
Ammonium chloride		P75	P90
Ammonium sulphate	Saturated	P75	P90
Ammonium sulphide	Saturated	P25	P45
Amyl alcohol		P25	P65
Amyl chloride	100 %	°	°
Car exhaust gas		P30	P80
Petrol		S30	Z30
Benzoic acid		P60	P90
Boric acid		P60	P90
Bromine, liquid		°	°
Bromine, fumes		°	P80
Bromine water	5 %	P20	P80
Hydrogen bromide acid	18 %	P60	P80
	48 %	P25	P45
Butanol	100 %	P25	P45
Butyric acid	50 %	P40	P80
	85 %	P20	P65
Butyl acetate	°	P45	
Butyl alcohol	60 %	P25	P45
Butyl glycol		°	P80
Calcium chloride	All	P75	P90
Calcium nitrate	All	P65	P80
Calcium sulphate	All	P75	P90
Chlorine gas (dry/wet)	Gas	P90	P90
Chloroform	100 %	°	°
Chlorinated water	Saturated	S30	P80
Hydrogen chloride	10 %	P80	P90
Hydrogen chloride (gas)	35 %	P80	P80
	100 %	P80	P80
Chromic acid	5 %	P25	P45
	10 %	°	P45
	20 %	°	Z30
Citric acid	All	P75	P90
Cyclohexane	100 %	P25	P40
Iron II chloride		P75	P90
Iron III chloride		P75	P90
Acetic acid	10 %	P65	P90
	25 %	P65	P90
	50 %	P65	P70
	75 %	P25	P60
	85 %	P25	P45

Element	Concentration	Isophthal	Vinyl ester
Acetic acid anhydride		°	Z30
Ethyl acetate		°	°
Ethyl alcohol	10 %	P40	P60
Ethyl chloride	100 %	°	°
Ethylene glycol		P80	P90
Fatty acids, saturated		P65	P90
Fatty acids, unsaturated		P65	P90
Fluorine		°	°
Fluosilicic acid	10 %	Z30	P65
Hydrogen fluoride (gas)	10 %		P90
Hydrofluoric acid	1 %	S30	P50
	20 %	°	P30
Formaldehyde	44 %	Z35	P45
Glycolic acid		P25	P60
Urea		P25	P50
Heating oil		P65	P90
Heptane		P25	P60
Hexane		P25	P45
Isobutylic acid	100 %	P50	P50
Isopropyl alcohol	100 %	P25	P45
Potassium carbonate	10 %	P25	P70
	Saturated	°	P30
Potassium chloride	Saturated	P75	P80
Potassium cyanide	5 %	P30	P80
	15 %	P30	P60
Potassium hydroxide	10 %	°	P65
	25 %	°	P45
Potassium nitrate	Saturated	P75	P90
Potassium oxide	10 %	Z50	P60
	25 %	S30	P40
Potassium sulphate	Saturated	P30	P90
Kerosene	100 %	P75	P90
Aqua regia	Fumes	°	P30
	Liquid	°	°
Carbon dioxide	Gas	P90	P90
Carbon monoxide	Gas	P90	P90
Fuel		P30	P40
Artificial fertiliser		P45	P60
Copper I sulphate	All	P75	P80
Copper II sulphate	All	P75	P80
Copper chloride	All	P75	P90
Latex	All	P90	P50
Lauric acid	All	P65	P90
Linoleic acid		P75	P75
Magnesium carbonate	Saturated	P60	P80
Magnesium chloride	Saturated	P60	P90
Magnesium nitrate	Saturated	P80	P80
Magnesium sulphate	Saturated	P75	P90

Element	Concentration	Isophthal	Vinyl ester
Maleic acid	All	P60	P90
Methyl chloride, liquid		°	°
Methyl chloride, gas		°	°
Lactic acid		P75	P90
Mineral oil	100 %	P75	P90
Sodium benzoate	Saturated	P75	P80
Sodium bromide	30 %	P65	P90
Sodium carbonate	10 %	P25	P80
	Saturated	P40	P80
Sodium chloride	Saturated	P75	P90
Sodium glutamate		P75	P80
Sodium nitrate	All	P75	P90
Sodium sulphate	Saturated	P75	P90
Caustic soda	10 %	S30	P65
	25 %	°	P65
	50 %	°	P90
Nickel nitrate	All	P75	P90
Nickel sulphate	All	P75	P90
Nitrobenzene		°	°
Oil, etheric		P30	P30
Oleic acid		P65	P90
Ethanedioic acid	Saturated	P65	P90
Palmitic acid	100 %	P65	P90
Paraffin oil		P60	P80
Plant oils		P60	P80
Phosphoric acid	10 %	P75	P80
	75 %	P60	P80
	100 %	°	P80
Phosphoric anhydride		°	P80
Polyvinyl alcohol	All	P30	P45
Polyvinyl acetate	Emulsion	P30	P65
Propanol		P40	S40
Propionic acid	50 %	P25	P25
Propylene glycol	All	P60	P90
Quicksilver		P75	P90
Quicksilver chloride	Saturated	P75	P80
Crude oil	100 %	P75	P75
Nitric acid	5 %	P65	P80
	15 %	P25	P65
	50 %	°	P45
	100 %	°	S30
Nitric fumes		P30	P80
Hydrochloric acid	10 %	P60	P90
	20 %	P60	P90
	37 %	P25	P45
Sulphur dioxide (gas)	10 %	P40	P80
Carbon disulphide		°	°

Element	Concentration	Isophthal	Vinyl ester
Sulphuric acid	10 %	P75	P90
	25 %	P75	P90
	50 %	P60	P90
	70 %	S30	P80
	75 %	°	P40
	Fumes	P90	P90
Hydrogen sulphide.	Gas	P45	P45
Sulphurous acid	All	P25	P45
Sea water		P60	P90
Sorbitol	All	P65	P65
Styrol	100 %	°	°
Tar		Z30	Z50
Turpentine oil		S30	P30
Carbon tetrachloride	100 %	P25	P30
Tetrahydrofuran		°	Z30
Toluene		°	Z30
Trichloroacetic acid	50 %	P25	P90
Trichloroethylene	100 %	°	°
Vinyl acetate	100 %	°	°
Petroleum ether		Z30	Z30
Hydrogen peroxide	5 %	P25	Z65
	30 %	°	P40
Tartaric acid		P75	P80
Xylol		°	P45
Zinc chloride		P75	P90
Zinc nitrate		P75	P90
Zinc sulphate		P75	P90

#### Table legend

Contact duration  
P = permanent  
Z = temporarily  
S = seldom  
° = not resistant

The above-mentioned figures show the media temperature in °C. This table was drafted to the best of our knowledge and belief based on experience. We cannot accept any liability whatsoever for the veracity or completeness of the information herein, particularly in view of lining/coating performance being affected by factors such as mechanical loading.

This information is in no way legally binding in any specific case and does not relieve the user from their duty to undertake their own testing and investigation. The information given cannot serve under any circumstances to justify any claim whatsoever for damages.

MEISER Sweden AB

Box 8778, 402 76 Göteborg | Tel: 010-458 00 00 | Fax: 031-55 40 51 | [www.meiser.se](http://www.meiser.se) | [info@meiser.se](mailto:info@meiser.se)