

CHEMICAL RESISTANCE CHART



INTRODUCTION

This information on Metz and Metz Sauereisen products has been prepared as a guide only and should not be used for specification purposes by itself.

WHAT WE NEED TO KNOW:

A number of factors must be considered in specifying the correct product for a particular application, including:

- Type, concentration and temperature of all chemicals, including cleaning compounds;
- Whether exposure is continuous or intermittent;
- Mechanical stresses such as traffic, equipment loading, abrasion, etc;
- Type and condition of substrate;
- Surface finish required;
- Site conditions at the time of installation.
- Available curing time before being placed into service.

CLASS CATEGORIES:

- | | |
|-----------------------|--|
| 1. Membranes | - includes Metz 18A, 20M, 96, Metz Sauereisen 89 |
| 2. Potassium Silicate | - includes Metz 7K, 7KE, Metz Sauereisen 65 and 54 Series |
| 3. Epoxy A | - includes Metz 6B, 9HB, 10 and 33 Series, 44-SL, 70, 33EN Sprayable |
| Epoxy B | - includes Metz 4HB and 19 Series, Metz Epoxy Plaster |
| 4. Epoxy Novolac | - includes Metz 4HB-EN, 5EN, 5EN-GF, 5NF, 5NFA, 6NF, 10EN, 33EN Series
(excluding 33EN Sprayable) |
| 5. Furane | - Metz 12P, 12P-2 Part, 12PHF |
| 6. Vinyl Ester | - Metz 10VE, 15VE, 16VE series |
| 7. Polyurethane A | - Metz 93PU and 94 Series |
| Polyurethane B | - Metz 20B, 20M, 92, 95M and 97 |
| 8. Fluoroelastomer | - Metz Viton Caulk, Metz Viton Coating |
| 9. Silicone | - Metz 8 |
| 10. Ceramics | - Metz Acid Tile, Metz Acid Brick, Metz Fireclay Acid Brick, Metz Acid Brick Type XL |

CHEMICAL LISTING

The chemicals listed in the following pages are in concentrated form unless otherwise specified. For chemicals or chemical concentrations not specifically mentioned please consult Metz for recommendations.

CHEMICAL RESISTANCE IS DESCRIBED AS:

- R recommended for full exposure
S satisfactory for splash and spillage exposure with adequate slopes to drain
NR not recommended
ND no data
* Metz carbon products recommended

The data in this chart is based on experience and tests on cured samples **conducted at 20°C**. Combinations of chemicals and also higher temperatures can produce different results. For other specific conditions consult Metz. This information is offered as a guide only to assist the user, who should satisfy themselves that selected products are suitable for their application.

We would welcome your enquiry for advice on any application.

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METZ.AU



CHEMICAL (tested at 20°C)	MEMBRANES			POTASSIUM SILICATE	EPOXY A	EPOXY B	EPOXY NOVOLAC	FURANE	VINYL ESTER	POLYUR- ETHANE A	POLYUR- ETHANE B	FLUORO- ELASTOMER	SILICONE	CERAMIC
	18A	20M, 96	S89	7K, 7KE, S65, S54 Series	6B, 9HB, 10 & 33 Series, 70, 33EN Sprayable	4HB & 19 Series, Epoxy Plaster	4HB-EN, 5EN, 5EN-GF, 5NF, 6NF, 5NFA, 10EN, 33EN Series, excl 33EN Sprayable	12P, 12P-2 Part, 12PHF	10VE, 15VE, 16VE Series	93PU & 94 Series	20B, 20M, 95M, 92 & 97	Viton Caulk, Viton Coating	8	Acid Tiles & Bricks
ACETIC ACID, <10%	R	R	R	R	S	S	R	R	R	R	R	R	R	R
ACETIC ACID, GLACIAL	NR	NR	NR	R	NR	NR	NR	R	S	R - 93PU, S - 94	NR	NR	R	R
ACETONE	NR	NR	NR	R	S	NR	S	R	S	S	NR	NR	NR	R
ALUMINIUM CHLORIDE	R	R	R	R	R	R	R	R	R	R	R	R	R	R
ALUMINIUM FLUORIDE	NR	S	NR	NR	R	R	R	R - 12PHF, S - Others	R	S	S	R	R	R
ALUMINIUM NITRATE	R	R	R	R	R	S	R	S	R	S	R	R	R	R
ALUMINIUM SULPHATE	R	R	R	R	R	R	R	R	R	R	R	R	R	R
AMMONIA	R	R	R	NR	R	R	R	R	R	R	R	NR	R	R
AMMONIUM CHLORIDE	R	R	R	R	R	R	R	R	R	R	R	R	R	R
AMMONIUM FLUORIDE	S	S	NR	NR	R	R	R	R - 12PHF, S - Others	R	S	S	S	S	S*
AMMONIUM HYDROXIDE	R	R	R	NR	R	R	R	R	R	R	R	R	R	R
AMMONIUM NITRATE	R	R	R	R	R	S	R	R	R	R	R	R	R	R
AMMONIUM PHOSPHATES	R	R	R	R	R	R	R	R	R	R	R	R	R	R
AQUA REGIA	NR	NR	NR	R	NR	NR	S	NR	NR	NR	NR	R	NR	R
BARIUM CHLORIDE	R	R	R	R	R	R	R	R	R	R	R	R	R	R
BENZENE	NR	NR	NR	R	NR	NR	R	R	S	S	NR	R	NR	R
BENZOIC ACID	S	S	R	R	S	NR	S	R	R	R	S	R	S	R
BENZYL ALCOHOL	NR	NR	NR	R	S	NR	S	S	R	S	NR	R	R	R
BORIC ACID	R	R	R	R	R	S	R	R	R	R	R	R	R	R
BROMINE	S	S	S	R	S	NR	S	NR	NR	S	S	R	NR	R
BUTANOL	NR	S	NR	R	S	NR	S	R	R	R	S	R	R	R
CADMIUM SALTS	R	R	R	R	R	R	R	R	R	R	R	R	R	R
CALCIUM CHLORIDE	R	R	R	R	R	R	R	R	R	R	R	R	R	R

R = RECOMMENDED

S = SPLASH SPILLAGE

NR = NOT RECOMMENDED

ND = NO DATA

* = METZ CARBON PRODUCTS RECOMMENDED

CHEMICAL (tested at 20°C)	MEMBRANES			POTASSIUM SILICATE	EPOXY A	EPOXY B	EPOXY NOVOLAC	FURANE	VINYL ESTER	POLYUR- ETHANE A	POLYUR- ETHANE B	FLUORO- ELASTOMER	SILICONE	CERAMIC
	18A	20M, 96	S89	7K, 7KE, S65, S54 Series	6B, 9HB, 10 & 33 Series, 70, 33EN Sprayable	4HB & 19 Series, Epoxy Plaster	4HB-EN, 5EN, 5EN-GF, 5NF, 6NF, 5NFA, 10EN, 33EN Series, excl 33EN Sprayable	12P, 12P-2 Part, 12PHF	10VE, 15VE, 16VE Series	93PU & 94 Series	20B, 20M, 95M, 92 & 97	Viton Caulk, Viton Coating	8	Acid Tiles & Bricks
CALCIUM HYDROXIDE	R	R	R	NR	R	R	R	R	R	R	R	R	R	R
CALCIUM HYPOCHLORITE	NR	R	NR	NR	NR	NR	R	NR	R	R	R	R	S	R
CALCIUM SULPHATE	R	R	R	S	R	R	R	R	R	R	R	R	R	R
CARBON DISULPHIDE	NR	NR	S	R	NR	NR	NR	R	S	NR	NR	R	NR	R
CARBON TETRACHLORIDE	NR	NR	NR	R	S	NR	S	R	R	S	NR	R	NR	R
CHLORINE DIOXIDE, WATER (10%)	NR	NR	NR	R	NR	NR	S	S	R	NR	NR	R	R	R
CHLORINE, LIQUID OR GAS	NR	NR	S	R	NR	NR	NR	NR	S	NR	NR	R	NR	R
CHROMIC ACID < 10%	S	NR	S	R	S	NR	R	S	R	R	NR	R	S	R
CHROMIC ACID > 10%	NR	NR	NR	R	NR	NR	S	NR	S	S	NR	R	NR	R
CITRIC ACID, 10%	R	R	R	R	R	R	R	R	R	R	R	R	R	R
CITRIC ACID, 50%	R	NR	R	R	S	NR	R	R	R	R - 93PU, S - 94	NR	R	S	R
COPPER SALTS	R	R	R	R	R	R	R	R	R	R	R	R	R	R
CRESOL	NR	NR	NR	R	NR	NR	S	R	S	S	NR	NR	NR	R
ETHYL ACETATE	NR	NR	NR	R	S	NR	S	R	S	R - 93PU, S - 94	NR	NR	S	R
ETHANOL	NR	S	NR	R	S	S	R	R	R	R	S	S	R	R
ETHYLAMINE	NR	NR	NR	R	NR	NR	NR	S	R	S	NR	NR	S	R
ETHYLENE DICHLORIDE	NR	NR	NR	R	NR	NR	S	R	R	R	NR	R	NR	R
ETHYLENE OXIDE	NR	NR	NR	R	NR	NR	S	R	NR	S	NR	NR	NR	R
FERRIC CHLORIDE	R	R	R	R	R	R	R	R	R	R	R	R	R	R
FERRIC SULPHATE	R	R	R	R	R	R	R	R	R	R	R	R	R	R
FERRIC & FERROCYANIDES	R	R	R	R	R	R	R	R	R	R	R	R	R	R
FLUOBORIC ACID	NR	NR	NR	NR	S	NR	R	R - 12PHF, S - Others	R	S	NR	R	S	R
FLUORINE GAS	NR	NR	NR	NR	NR	NR	NR	NR	S	NR	NR	R	NR	NR*

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FLUOSILICIC ACID	S	S	R	NR	R	S	R	R - 12PHF, S - Others	R	S	S	R	NR	S*
FORMALDEHYDE	S	S	R	R	S	S	S	R	R	R	S	S	S	R
FORMIC ACID	NR	S	R	R	NR	NR	S	R	R	S	S	S	S	R
GLYCERYL ACETATES	NR	S	NR	R	S	S	S	R	R	R	S	NR	S	R
HYDROBROMIC ACID	S	S	R	R	S	NR	S	R	R	S	S	R	NR	R
HYDROCHLORIC ACID 10%	R	R	R	R	R	R	R	R	R	R	R	R	R	R
HYDOCARBON FUELS	NR	S	NR	R	R	S	R	R	R	R	S	R	NR	R
HYDROCHLORIC ACID, 37%	S	S - 20M R - 96	R	R	S	NR	S - 33EN Spray R- All others	R	R	R	S	R	S	R
HYDROCYANIC ACID	S	S	R	R	S	S	S	R	R	S	S	R	S	R
HYDROFLUORIC ACID 10%	S	S	R	NR	S	NR	R	R - 12PHF, S - Others	S	S	S	R	S	S*
HYDROFLUORIC ACID, 50%	NR	NR	S	NR	NR	NR	S	R - 12PHF, NR - Others	NR	NR	NR	R	NR	NR*
HYDROGEN PEROXIDE	S	S	S	S	S	NR	R	NR	NR	R	S	R	R	R
HYDROGEN SULPHIDE	S	S	R	R	R	S	R	R	R	R	S	NR	S	R
HYPOCHLOROUS ACID 10%	S	S	S	R	S	NR	R	S	S	S	S	R	S	R
IODINE	S	S	R	R	S	S	S	NR	R	S	S	R	NR	R
LACTIC ACID, 10%	R	R	R	R	S	S	R	R	R	R	R	R	R	R
LACTIC ACID, 88%	S	NR	R	R	NR	NR	NR	R	R	R - 93PU, S - 94	NR	R	S	R
LEAD CHLORIDE	R	R	R	R	R	R	R	R	R	R	R	R	R	R
LEAD NITRATE	S	S	R	R	S	NR	R	S	R	R	S	R	R	R
MAGNESIUM CHLORIDE	R	R	R	R	R	R	R	R	R	R	R	R	R	R
MAGNESIUM SULPHATE	R	R	R	R	R	R	R	R	R	R	R	R	R	R
MALEIC ACID	S	S	S	R	S	NR	S	R	R	R - 93PU, S - 94	S	R	R	R
MANGANESE SALTS	R	R	R	R	R	R	R	R	R	R	R	R	R	R

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METHANOL	NR	S	NR	R	S	S	R	R	R	S	S	R	R	R
METHYL ETHYL KETONE	NR	NR	NR	R	NR	NR	S	R	S	S	NR	NR	NR	R
METHYLENE CHLORIDE	NR	NR	NR	R	NR	NR	S	R	S	S	NR	S	NR	R
NAPHTHALENE	NR	NR	NR	R	S	R	S	R	R	R	NR	R	NR	R
NICKEL SALTS	R	R	R	R	R	R	R	R	R	R	R	R	R	R
NITRIC ACID 10%	S	S - 20M R - 96	NR	R	S	NR	S - 33EN Spray R- All others	S	R	R	S	R	R	R
NITRIC ACID 35%	NR	NR - 20M S - 96	NR	R	NR	NR	NR - 33EN Spray S- All others	NR	R	NR	NR	R	NR	R
NITRIC ACID, 70%	NR	NR	NR	R	NR	NR	NR	NR	S	NR	NR	R	NR	R
NITROGLYCERINE	NR	NR	NR	R	S	NR	S	S	S	S	NR	R	S	R
OILS, MINERAL	S	S	NR	R	R	S	R	R	R	R	S	R	R	R
OLEIC ACID	S	S	NR	R	R	NR	R	R	R	R - 93PU, S - 94	S	R	NR	R
OXALIC ACID	S	R	NR	R	R	R	R	R	R	R	R	R	R	R
PERCHLORIC ACID	NR	NR	NR	R	NR	NR	S	NR	R	S	NR	R	NR	R
PHENOL	NR	NR	NR	R	S	NR	S	R	R	R	NR	R	NR	R
PHOSPHORIC ACID 50%	R	R	R	R	R	S	R	R	R	R	R	R	R	R
PHOSPHORIC ACID 85%	S	NR - 20M S - 96	R	R	NR	NR	S - 33EN Spray R- All others	R	R	R	S	R	S	R
PHTHALIC ACID	S	S	R	R	R	NR	R	S	R	R	S	R	S	R
PICRIC ACID	S	S	NR	R	S	NR	S	S	R	S	S	R	NR	R
POTASSIUM DICHROMATE	NR	S	NR	R	S	S	R	R	R	R	S	R	R	R
POTASSIUM CARBONATE	R	R	R	NR	R	R	R	R	R	R	R	R	R	R
POTASSIUM CHLORIDE	R	R	R	R	R	R	R	R	R	R	R	R	R	R
POTASSIUM HYDROXIDE	R	R	S	NR	R	R	R	R	S	R	R	S	S	R
POTASSIUM NITRATE	R	R	R	R	R	R	R	R	R	R	R	R	R	R

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CHEMICAL (tested at 20°C)	MEMBRANES			POTASSIUM SILICATE	EPOXY A	EPOXY B	EPOXY NOVOLAC	FURANE	VINYL ESTER	POLYUR- ETHANE A	POLYUR- ETHANE B	FLUORO- ELASTOMER	SILICONE	CERAMIC
	18A	20M, 96	S89	7K, 7KE, S65, S54 Series	6B, 9HB, 10 & 33 Series, 70, 33EN Sprayable	4HB & 19 Series, Epoxy Plaster	4HB-EN, 5EN, 5EN-GF, 5NF, 6NF, 5NFA, 10EN, 33EN Series, excl 33EN Sprayable	12P, 12P-2 Part, 12PHF	10VE, 15VE, 16VE Series	93PU & 94 Series	20B, 20M, 95M, 92 & 97	Viton Caulk, Viton Coating	8	Acid Tiles & Bricks
POTASSIUM SULPHATE	R	R	S	R	R	R	R	R	R	R	R	R	R	R
SALICYLIC ACID	R	R	R	R	R	R	R	R	R	R	R	R	R	R
SKYDROL	ND	NR	ND	R	R	ND	R	R	R	R	NR	ND	S	R
SODIUM BICARBONATE	R	R	R	S	R	R	R	R	R	R	R	R	R	R
SODIUM BISULPHATE	R	R	R	R	R	R	R	R	R	R	R	R	R	R
SODIUM CARBONATE	R	R	R	NR	R	R	R	R	R	R	R	R	R	R
SODIUM CHLORIDE	R	R	R	R	R	R	R	R	R	R	R	R	R	R
SODIUM HYDROXIDE, 10%	R	R	R	NR	R	R	R	R	R	R	R	R	R	S*
SODIUM HYDROXIDE, 50%	R	S	R	NR	R	R	R	R	S	R	S	R	R	S*
SODIUM HYPOCHLORITE	NR	R	NR	NR	NR	NR	R	R	R	R	R	R	R	R
SODIUM NITRATE	R	R	R	R	R	R	R	R	R	R	R	R	R	R
SODIUM SULPHATE	R	R	R	R	R	R	R	R	R	R	R	R	R	R
STEARIC ACID	S	S	S	R	S	NR	S	R	R	R	S	R	R	R
SULPHURIC ACID, <10%	R	R	R	R	R	R	R	R	R	R	R	R	R	R
SULPHURIC ACID, 50%	S	R	R	R	R	S	R	R	R	R	R	R	R	R
SULPHURIC ACID, 98%	NR	NR	NR	R	NR	NR	R - 6NF, 5NFA S- All others	NR	S	NR	NR	R	NR	R
TIN SALTS	R	R	R	R	R	R	R	R	R	R	R	R	R	R
TOLUENE	NR	NR	NR	R	S	NR	R	R	R	S	NR	R	NR	R
TOLUENE SULPHONIC ACID	NR	NR	NR	R	NR	NR	S	R	R	R	NR	R	R	R
TRICHLOROETHYLENE	NR	NR	NR	R	NR	NR	S	R	S	S	NR	R	NR	R
TRISODIUM PHOSPHATE	R	R	NR	NR	R	R	R	R	R	R	R	R	R	R
UREA	S	R	S	R	R	R	R	R	R	R	R	NR	R	R
URIC ACID	S	S	NR	R	R	R	R	R	R	R	S	NR	R	R

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WATER	R	R	R	S	R	R	R	R	R	R	R	R	R	R
WATER, DEMINERALISED	R	R	R	S	R	R	R	R	R	R	R	R	R	R
WATER, SALT	R	R	R	S	R	R	R	R	R	R	R	R	R	R
XYLENE	NR	NR	NR	R	S	NR	R	R	R	R	NR	R	NR	R
ZINC SALTS	R	R	R	R	R	R	R	R	R	R	R	R	R	R
<u>FOOD PRODUCTS</u>														
GLUTEN FLOUR	S	S			S	S	R	R		R	S		R	R
OILS, VEGETABLES	S	S			S	S	R	R		R	S		R	R
PICKLE JUICE	R	R			S	S	R	R		R	R		R	R
POULTRY FAT					S	NR	R	R	R	R	R		S	R
SPICES	R	R			R	S	R	R		R	R		R	R
VINEGAR	R	R			S	S	R	R		R	R		R	R

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