



METZ SAUEREISEN 65

INORGANIC SILICATE CEMENT



DESCRIPTION:

METZ SAUEREISEN 65 is a two part inorganic potassium silicate cement used in the laying of acidproof bricks and tiles for acidproof structures and linings.

FEATURES AND BENEFITS:

- **Excellent Acid Resistance**
Resistant to all acids in all concentrations, except hydrofluoric acid and fluoride salts. Especially recommended for all concentrations of sulphuric, nitric, hydrochloric and phosphoric acids. Unaffected by 98% Sulphuric Acid. Refer METZ Chemical Resistance Chart.
- **Easy to Prepare and Apply**
Two part mix.
- **High Service Temperature**
Withstands temperatures to 670°C.
- **Low Shrinkage**
Develops lineal shrinkage of less than 1.0%.
- **Safe to Use**
Does not emit hazardous fumes during mixing, application or setting.
- **Superior Performance**
100% potassium silicate bonded. Outperforms sodium silicate based cements.

RECOMMENDED:

As a bonding cement for acid brick and tile installations:

- Acid tanks
- Power station chimneys
- Sewage treatment
- Industrial chimneys
- Waste acid collection sumps
- Pickling lines
- Floors and drains in acid storage areas
- Absorption and drying towers in sulphuric acid and nitric acid plants
- Fertilizer industry

NOT RECOMMENDED:

- Exposure to hydrofluoric or fluoride salts.
- Exposure to alkaline solutions of any kind (i.e. any solution in pH range 7 to 14).
- Exposure to large quantities of running water.

PHYSICAL PROPERTIES: (Typical Values)

Density g/cm ³	1.95-2.05
Compressive Strength MPa	> 21
Adhesion to wire cut brick MPa	1.2
Maximum Service Temperature	670°C
Tensile Strength MPa	2.8
Modulus of elasticity MPa	390
Coefficient of Thermal Expansion per °C	13.3 x 10 ⁻⁶
Shrinkage %	1.0

COVERAGE:

Theoretical quantity (allow for wastage)

For fully bedding and jointing (nominal 3mm joint) Nori acid brick (220 x 105 x 75mm)	0.3 kg per brick
For bonding bricks in independent brick wall	0.2 kg per brick
For fully bedding and jointing tiles 240 x 115 x 30mm (6mm joint)	15 kgs per square metre

APPLICATION TEMPERATURE:

The recommended temperature range for application is 10°C to 27°C.

At temperatures below 10°C, curing may be inhibited and final technical properties may be affected.

At temperatures above 27°C consistency and setting rates may be affected.



CHEMICAL & CORROSION RESISTANT
MATERIALS OF CONSTRUCTION





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INSTRUCTIONS FOR USE

1. Temperature of Working Area

Maintain a temperature of between 10°C and 27°C on the METZ SAUEREISEN 65 Liquid and Powder, brick and substrate during mixing and application. Air temperature in the area where METZ SAUEREISEN 65 is to be applied should also be between 10°C and 27°C.

At temperatures below 10°C, METZ SAUEREISEN 65 will not cure properly. Consult METZ Pty Ltd for special instructions if temperature cannot be maintained above 10°C. At temperatures above 27°C, initial set will take place too rapidly. This difficulty can be overcome by cooling the mixing equipment with ice water, and by cooling the METZ SAUEREISEN 65 liquid.

2. Surface Preparation

All surfaces must be clean and dry. METZ SAUEREISEN 65 will not adhere adequately to concrete surfaces. These surfaces should first be coated with a membrane. The type of membrane will depend on physical and chemical conditions. Please consult METZ Pty Ltd for recommendations. Bricks and tiles should be dry.

3. Mixing

a) Equipment:

Mechanical mixing is recommended. A slow speed mortar mixer or a heavy duty drill with a suitable mixing paddle can be used. Small quantities can be mixed by hand, using a trowel or a spatula.

b) Proportions:

Mix 2.5 parts METZ SAUEREISEN 65 Powder to 1 part METZ SAUEREISEN 65 Liquid by weight or volume. The Powder proportion can be varied by $\pm 10\%$ to the desired consistency.

c) Mixing Procedure:

Pour entire amount of Liquid into the mixing equipment. Add the Powder slowly to the Liquid, mixing constantly to avoid air entrapment. Mix thoroughly until the mortar is smooth and lump free. Material which has begun to set must be discarded.

d) Pot Life

Temperature °C	Pot Life minutes (approx.)
10	60
15	45
20	30
27	10

e) Clean up:

Mixing equipment, tools, etc. can be cleaned with water prior to initial set of cement.

4. Installation

Bricks or tiles should be buttered with METZ SAUEREISEN 65 using a trowel and well beaten down. Joints should be kept to minimum width possible, usually 2-3mm. Ensure there are no voids.

Setting time:

Temperature °C (i)	Final set hours (ii)
10	48
15	36
20	24
27	24

(i) If temperature drops below minimum value noted above, additional time will be required to achieve final set.

(ii) Final set is achieved when material has set through entire mass.

Protect METZ SAUEREISEN 65 from chemicals, water, steam and temperatures below 10°C until final set is achieved. For installations that will be exposed to temperatures above 93°C, consult METZ for drying cycles.

Acid Treatment:

If, after final set, the installation will be exposed to water before it is exposed to acid, METZ SAUEREISEN 65 joints should be treated with a mixture of 1 part commercial strength (33%) hydrochloric acid to 2 parts water.

5. Storage

Liquid Protect from frost. Remix thoroughly before use.
Powder Keep dry.

6. Safety Precautions

Liquid

Avoid contact with eyes at all costs.

Wear safety glasses when mixing.

If contact occurs, wash with copious amounts of water.

Seek medical attention.

Avoid contact with skin. Wear protective gloves.

Powder

Avoid breathing dust.

Ensure adequate ventilation.

For fully safety precautions refer to the Material Safety Data Sheet for each component.

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