



# METZ 5NF

## CORROSION RESISTANT EPOXY



### DESCRIPTION:

METZ 5NF is a 100% solids Epoxy Novolac formulation which imparts outstanding chemical resistance. It is specifically formulated to resist concentrated acid environments, including sulphuric and nitric acids. It also cures rapidly even at low temperatures, thus minimising downtime.

### FEATURES AND BENEFITS:

- **Outstanding Chemical Resistance**  
Resistant to a wide range of concentrated acids and alkalis, solvents, oils and fats. Resistant to spillages of concentrated sulphuric, hydrochloric, nitric and phosphoric acids.
- **High Temperature Resistance**  
Resistant to temperatures up to 150°C.
- **High Bond, Tensile and Compressive Strengths**
- **Solventless**  
100% solids formulation.
- **Rapid Cure**  
Fast setting, minimises downtime.
- **Low Temperature Cure**  
Cures at temperatures down to 0°C.

### RECOMMENDED:

As a jointing cement for acid brick and tile installations.

- Secondary containment linings.
- Acid plants.
- Fertiliser plants.
- Oil refineries.
- C.I.P. rooms in food and beverage plants.

Note: Can be also used as a bedding cement by using alternate powder. Consult Metz for details.

### NOT RECOMMENDED:

- For exposure to strong organic acids and solvents. Refer Metz 12P and Metz Sauereisen 65

Note: Metz 5NF may change colour on exposure to concentrated acids.

### PHYSICAL PROPERTIES:

	(Typical Values)
Density, g/cm <sup>3</sup> :	1.9 - 2.0
Compressive Strength, MPa:	100
Adhesion to Brick, MPa:	2.8
Maximum Service Temperature, deg C	150
Tensile Strength, MPa:	21

### COVERAGE: Theoretical quantities (allow for wastage)

For jointing 240 x 115mm tiles - joints 6mm wide x 20mm deep	3 kg/square metre
For jointing 150 x 150mm tiles - joints 6mm wide x 12mm deep	1.85 kg/square metre

### APPLICATION TEMPERATURE:

For optimum results, maintain a temperature of 5 - 25°C on air, substrate and components during mixing, application and curing.

At temperatures below 5°C, curing may be inhibited and final technical properties may be affected.

At temperatures above 25°C, consistency and setting rates may be affected.

Note: At ambient temperatures below 15°C. the liquid should be warmed to 20-25°C prior to use.



CHEMICAL & CORROSION RESISTANT  
MATERIALS OF CONSTRUCTION





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### INSTRUCTIONS FOR USE

#### 1. Temperature of Working Area

For optimum results, maintain a temperature of 5 - 25°C on air, substrate and components during mixing, application and curing.

At temperatures below 5°C, the application becomes more difficult and curing is retarded.

At temperatures above 25°C, initial set will take place rapidly. This difficulty can be overcome by mixing in a cooler area or by cooling the components.

Note: At ambient temperatures below 15°C, the liquid should be warmed to 20-25°C prior to use.

#### 2. Surface Preparation

All surfaces must be clean, dry and free from oil, grease, water and other contaminants which may inhibit bond.

#### 3. Mixing

##### a) *Mixing Equipment*

Mechanical mixing is recommended. A low speed mixer or a heavy duty drill with an appropriate mixing paddle are suitable.

##### b) *Mixing Proportions*

	By Weight	By Volume
Liquid	2	1.85 parts
Hardener	1	1.0 parts
Powder	10	8.0 parts

**Note: Liquid to hardener ratio must not be altered under any circumstances.** The powder proportion may be altered  $\pm 10\%$  to suit requirements.

##### c) *Mixing Procedure*

Thoroughly mix liquid and hardener together first, incorrect proportions. Add powder gradually with constant stirring.

##### d) *Pot Life at 20°C*

Approximately 40 minutes

##### e) *Clean Up*

Mixing equipment, tools, etc., can be cleaned with METZ Cleaner, xylene, acetone or M.E.K. prior to initial set of cement.

#### 4. Installation

Joint width: 6mm nominal to enable joints to be completely filled.

##### (a) *Masking of Floor Tiles*

To facilitate cleaning of tiles we recommend that they should be first coated with METZ Masking Compound. This compound is applied sparingly with a lambswool roller. At least two coats are recommended, with great care being taken to ensure that it does not run down the sides of the joints.

METZ Masking Compound should be allowed to dry (approx. 1 hour under normal conditions), before the second coat is applied. For porous tiles, three or more coats may have to be applied. If tile surfaces are very rough, it is recommended that they be waxed before laying.

##### (b) *Application*

Apply mixed grout to joints using trowel or compressed air operated jointing gun (operating at 100psi pressure). Ensure joints are flush with the tile surface.

Remove as much of the excess cement as possible from the tile surface prior to the initial set of the cement.

A clean rag dampened with METZ Cleaner will aid this removal. After joints have set (usually the next day), METZ Masking Compound can be removed with water and a scrubbing machine.

##### (c) *Setting Time*

at 20°C 6 hours

at 4°C Overnight

##### (d) *Full Cure*

at 20°C 3 days

at 4°C 5 days

Do not allow water or chemicals on the material surface for a minimum of 24 hours. For harsh chemical or physical environments, cure for a minimum of 72 hours prior to exposure.

#### 5. Safety Precautions

##### a) *Liquid and Hardener:*

Avoid contact with skin and eyes. Avoid breathing vapour.

Use barrier cream and wear protective gloves. If contamination occurs, wash affected area with soap and water (never use METZ Cleaner for this purpose).

##### b) *Powder:*

Avoid breathing dust.

Ensure adequate ventilation.

##### c) *Cleaner:*

Inflammable.

No smoking.

Avoid formation of sparks.

Ensure adequate ventilation.

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

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