

# METZ 6NF

## CHEMICAL GRADE EPOXY NOVOLAC



### DESCRIPTION:

Metz 6NF is a 100% solids Epoxy Novolac formulation which imparts outstanding chemical resistance. It is specifically formulated to resist concentrated acid environments, including sulphuric, hydrochloric and phosphoric acids. It also cures rapidly even at low temperatures, thus minimising downtime. Metz 6NF is used to bed and joint acid resistant bricks and tiles.

### 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, and phosphoric acids. Refer Metz Chemical Resistance Chart for full details.
- **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 bedding and jointing material for acid brick and tile installations in:

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

### NOT RECOMMENDED:

- For exposure to strong organic acids and solvents. Refer Metz 12P and Metz 7K

Note: Metz 6NF 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

For bedding tiles

2 kg/square metre/mm of thickness



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### INSTRUCTIONS FOR USE

#### 1. Temperature of Working Area

For optimum results, maintain a temperature of 5 - 40°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 40°C, initial set will take place rapidly. This difficulty can be overcome by mixing in a cooler area or by cooling the components.

Note: Materials should be kept as cool as possible. Reducing material temperature will increase pot life.

#### 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 L2	2	1.85 parts
Hardener	1	1.0 parts
Powder* P2, P1	9,10	7, 8 parts

\* For grouting tiles use P1 Powder, for bedding tiles use P2 Powder.

**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, in correct proportions. Add powder gradually with constant stirring.

##### d) Pot Life at 20°C - 40 minutes

30°C - 30 minutes

40°C - 20 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

##### (a) Bedding

Use Metz P2 powder. For tiles, apply fresh mixed Metz 6NF to substrate with suitable notched trowel and immediately set tiles in the bed. When fixing tiles with keyed backs, prefill keys with Metz 6NF.

Do not spread more Metz 6NF that can be covered in 20 minutes at 20°C. When bedding bricks, bricks should be buttered with Metz 6NF using a trowel and well beaten down and tight against adjoining brick. Ensure there are no voids.

##### (b) Jointing

Use Metz P1 powder. Joint width: 6mm nominal to enable joints to be completely filled. 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 cement from the tile surface prior to the initial set of the cement, using Metz Cleaner or similar.

##### (c) Setting Time

at 20°C 6 hours

at 30°C 4 hours

at 40°C 3 hours

##### (d) Full Cure

at 20°C 3 days

at 30°C 2 days

at 40°C 2 days

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

#### 5. Storage

Store in original, sealed container in a cool dry place. Under these conditions minimum shelf life is 12 months.

#### 6. 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.

Always ensure you have the latest data sheet version, refer [www.metz.net.au](http://www.metz.net.au)

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