

METZ 5NF/5NFA EPOXY NOVOLAC MORTAR



DESCRIPTION:

Metz 5NF is a 100% solids Epoxy Novolac formulation specifically designed as a ceramic tile grout for use in food processing and preparation areas where extra chemical and temperature resistance are required. It can also be used to bed tiles in aggressive areas where chemical resistant bedding is desired.

Metz 5NF cures rapidly even at low temperatures, thus minimising downtime.

Metz 5NFA is an accelerated version used where even faster setting is required.

FEATURES AND BENEFITS:

- **Outstanding Chemical Resistance**
Resistant to a wide range of acids and alkalis, solvents, oils and fats. Resistant to foodstuffs and chemicals used in food processing and preparation, including cleaning solutions. Refer Metz Chemical Resistance Chart for full details.
- **High Temperature Resistance**
Resistant to spillages of hot oils and fats including poultry fats
- **High Bond, Tensile and Compressive Strengths**
- **Low VOC Content**
100% solids formulation. Complies with requirements of Green Building Council.
- **Rapid Cure**
Fast setting, minimises downtime
- **Low Temperature Cure**
Cures at temperatures down to 2°C
- **Quality Accreditation**
The management system governing the development and manufacture of this product is proudly ISO9001:2008 certified

RECOMMENDED:

As a jointing cement for ceramic tiles.

- Fast food kitchens, especially in frying areas
- Restaurant kitchens
- Poultry and meat processing plants
- Breweries and beverage plants

NOT RECOMMENDED:

- For immersion in concentrated inorganic acids. Refer Metz 6NF and Metz 7K
 - For exposure to strong organic acids and solvents. Refer Metz 12P and Metz 7K
- Note: Metz 5NF/5NFA may change colour on exposure to concentrated acids. Light colours are not UV colour stable.

PHYSICAL PROPERTIES:

	(Typical Values)
Density, g/cm ³ :	1.9 - 2.0
Compressive Strength, MPa:	100
Adhesion to Brick, MPa:	2.8
Maximum Service Temperature, deg C	150
Tensile Strength, MPa:	21
VOC Content:	4g/L (Metz 5NF)

COVERAGE:

 Theoretical quantities (allow for wastage)

For jointing 245 x 120mm tiles - joints 8mm wide x 14mm deep
For jointing 150 x 150mm tiles - joints 6mm wide x 12mm deep
For bedding tiles

2.6 kg/square metre
1.85 kg/square metre
2 kg/square metre/mm of thickness



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Acid Proofing • Industrial Flooring • Specialty Ceramic Tiling

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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* (for both 5NF and 5NFA)

	By Weight	By Volume
Liquid L2	2	1.8 parts
Hardener 5NF or 5NFA	1	1.0 parts
Powder* P2 or 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*

	5NF	5NFA
at 20°C	50 minutes	40 minutes
at 30°C	35 minutes	30 minutes
at 40°C	25 minutes	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 mortar.

4. Installation

(a) *Masking of Floor Tiles*

To facilitate cleaning of tiles when appearance is critical, we recommend that they should be prior coated with Metz Masking Compound. This compound is applied sparingly by 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. 1-2 hours dependent upon temperatures and airflow), 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) *Bedding*

Use Metz P2 powder. For tiles, apply fresh mixed Metz 5NF/5NFA to substrate with suitable notched trowel and immediately set tiles in the bed. When fixing tiles with keyed backs, prefill keys with Metz 5NF/5NFA.

Do not spread more Metz 5NF/5NFA that can be covered in 20 minutes at 20°C. When bedding bricks, bricks should be buttered with Metz 5NF/5NFA using a trowel and well beaten down and tight against adjoining brick. Ensure there are no voids.

(c) *Jointing*

Use Metz P1 powder. Joint width: 6mm nominal to enable joints to be completely filled. Apply mixed grout to joints using trowel or pneumatic gun. Ensure joints are flush with the tile surface.

Remove excess grout before initial set of material. Use Metz Cleaner or similar to remove smears. If Metz Masking Compound has been applied, remove with water and scrubbing machine after grout has set.

(d) *Setting Time*

	5NF	5NFA
at 20°C	6 hours	5 hours
at 30°C	4 hours	3 hours
at 40°C	3 hours	2 hours

(e) *Full Cure*

at 20°C	3 days	3 days
at 30°C	2 days	2 days
at 40°C	2 days	2 days

Do not allow water on the material surface for a minimum of 6 hours at 20°C. 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 Safety Data Sheet for each component.

Always ensure you have the latest data sheet version, refer www.metz.net.au

- The customer must comply strictly with the instructions contained in this product data sheet. Metz is not responsible for any advice or variations to this data sheet which are not confirmed in writing.
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