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 for example under fryers in commercial kitchens.
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 ISO9001:2015 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)

COLOURS:

Standard colours:	Black, Light Grey, Dark Grey, Ivory and Red
Other colours:	Manufactured to order

COVERAGE: Theoretical quantities (allow for wastage)

For jointing 245 x 120mm tiles - joints 8mm wide x 14mm deep	2.6 kg/square metre
For jointing 150 x 150mm tiles - joints 6mm wide x 12mm deep	1.85 kg/square metre
For bedding Metz Sicodur® kitchen tiles (allow for typically 3mm thick)	6 kg/square metre

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METZ®

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

Mix Liquid component with a slow speed drill for a minimum of 30 seconds and at least until all material is of consistent appearance.

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
Liquid L2	2
Hardener 5NF or 5NFA	1
Powder* P2 or P1	9, 10

* For grouting tiles use P1 powder, for bedding tiles use P2 powder. For bedding tiles, P2 powder can be substituted with P1 powder by using below mix ratio.

	By Weight
Liquid L2	2
Hardener 5NF or 5NFA	1
Powder P1	7

Metz PT1 Powder MUST BE added when using Metz P1 Powder for tile bedding. Add up to 1% by weight of Metz PT1 Powder to Metz P1 powder for bedding tiles.
Powder added will depend upon temperature and site conditions. The exact amount to be added is not critical provided notched adhesive does not readily slump after placement. A loose metric cup of Metz PT1 powder weighs approximately 20 grams.
Note: Decant materials directly into the mixing bucket on electric scale. Measuring by volume gives inconsistent results impacting product performance. Liquid to hardener ratio must not be altered under any circumstances. The powder proportion may be altered ±10% to suit requirements.

c) Mixing Procedure
Thoroughly mix liquid and hardener together first, in correct proportions. Add powder gradually with constant stirring. When using Metz PT1 powder, add Metz PT1 powder into the liquid/hardener mix prior to addition of Metz P1 powder.

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 or alternatively Metz P1 powder and Metz PT1 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. 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.

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

1. 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.
2. If the customer has a claim against Metz in respect of any product supplied to the customer by Metz whether due to a fault in the product or the negligence or breach of contract by Metz or for any other reason:
   a) Metz shall not be liable for any loss or damage including consequential loss or damage or loss of profits arising thereby;
   b) Metz may at its option replace the defective product free of charge to the customer or refund all payments made to it by the buyer in respect of the defective product; and the maximum liability of Metz shall be the cost of replacing the defective product.

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