METZ 12PHF
CARBON FILLED FURANE COMPOUND

DESCRIPTION:

Metz 12PHF is a three part phenolic modified furane resin based bedding and jointing compound which is resistant to a wide range of chemicals, including hydrofluoric acid.

FEATURES AND BENEFITS:

- Superior Chemical Resistance
  Resistant to a wide range of chemicals including acids, alkalis, salts, fats and oils. Refer Metz Chemical Resistance Chart.
- Excellent Solvent Resistance
  Ideal for use when exposed to strong solvents.
- Hydrofluoric Acid Exposure
  Metz 12PHF resists attack by hydrofluoric acid.
- High Performance at Elevated Temperatures
  May be used at temperatures of up to 230°C.
- Impermeable
  Prevents ingress of aggressive liquids.
- Quality Accreditation
  The management system governing the development and manufacture of this product is proudly ISO9001:2015 certified.

RECOMMENDED:

Recommended for bedding and grouting carbon bricks and tiles.

- Flooring
- Reaction Vessels
- Towers
- Bunds
- Acid Tanks
- Pits
- Drains

NOT RECOMMENDED:

- For use in direct contact with concrete or metal. Consult Metz for recommended membrane.
- For areas subject to immersion in strong oxidizing acids (e.g. nitric, chromic, concentrated sulphuric acid. Refer Metz 7KE, Metz Sauereisen 65, Metz 14VE or Metz 6NF).
- For areas subject to strong chemicals after limited curing times.
- For installations where dry surfaces cannot be achieved.

PHYSICAL PROPERTIES: (Typical Values)

Temperature Limit:	230°C
Compressive Strength:	55MPa
Modulus of Elasticity:	10,000 MPa
Bond Strength	7MPa
Tensile Strength	7.5MPa
Shrinkage	0.18%
Density:	1.40-1.45 g/cm^3
Colour:	Black

COVERAGE: Theoretical quantities (allow for wastage)

For fully bedding and jointing (nominal 3mm joint) standard 75mm thick acid brick	0.26 kg/brick
For bonding bricks in independent brick wall (105mm thick)	0.17 kg/brick
For fully bedding and jointing tiles 240 x 115 x 30mm (6mm joint)	11.6 kg/sq.m.
For jointing tiles only 240 x 115 (6mm x 20mm joint)	2.4 kg/sq.m.

APPLICATION TEMPERATURE:

The recommended temperature range for application is 15°C to 30°C.
At temperatures below 15°C, curing may be inhibited and final technical properties may be affected.
At temperatures above 30°C consistency and setting rates may be affected.
If necessary consult Metz.

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METZ®

INSTRUCTIONS FOR USE

1. Temperature of Working Area
   Maintain a temperature of between 15°C and 30°C on the Metz components, brick or tile and substrate during mixing and application. Air temperature in the area where Metz 12PHF is to be applied should also be between 15°C and 30°C. At temperatures below 15°C, the material will not cure properly. Consult Metz if temperature cannot be maintained above 15°C. At temperatures above 30°C initial set will take place too rapidly. This difficulty can be overcome by mixing in a cooler area, or by cooling the mixing equipment with ice water, and by cooling the Metz components.
2. Surface Preparation
   All surfaces must be clean and completely dry. Metz 12PHF will not adhere to concrete or metal surfaces. These surfaces must first be coated with a membrane. Consult Metz for recommendations.
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) Equipment
      Mechanical mixing is recommended. A low speed dough 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 spatula.
   b) Mixing Proportions

	By Weight	By Volume
12P Liquid	2.5	1.4
12P Hardener	1.0	1.0
12PHF Powder	3.0	1.8

      Note: The 12PHF Powder (only) component may be adjusted to suit conditions (±10%). Do not alter the 12P Liquid or 12P hardener ratio.
   c) Mixing Procedure
      Thoroughly mix liquid and hardener together first.Apply powder gradually and mix thoroughly.
      Do not leave mixed material in thick mass as this will greatly accelerate its setting. Spread freshly mixed material thinly in shallow tray.
   d) Pot Life
      30 minutes at 20°C.
   e) Clean Up
      Use Metz Cleaner, acetone or MEK.
   f) Ensure you have the latest mixing instructions, refer www.metz.net.au for latest data sheet version.
4. Installation
   a) Application
      Apply by trowel. Apply approximately 3mm of Metz 12PHF to membrane or to brick course. Butter one side and end of brick with Metz 12PHF. Tap brick into place with joints of minimum width (3 to 4.5mm).
      Ensure full bonding of bricks with minimum voids. Strike off excess material with trowel before it begins setting.
      When jointing bricks or tiles on floors, ensure joints are flush with tile surface.
   b) Setting Time at 20°C 5 hours
   c) Physical Curing Time at 20°C 3 to 4 days
      (complete chemical cure 4-6 weeks)
5. Storage
   Store in a cool, dry environment for a minimum shelf life of 6 months.
6. Standard Pack Sizes
   12P Liquid 20kg pail, 225kg drum, 1000kg IBC
   12P Hardener 15kg pail
   12PHF Powder 15kg bag
   Note: Metz 12P Hardener is in powder form.
7. Safety Precautions
   a) Liquid
      Avoid all contact with skin and eyes.
      Use chemical goggles, PVC gloves and barrier cream.
   b) Powder:
      Use dust respirator, PVC gloves, barrier cream and chemical goggles.
   c) Cleaner:
      Inflammable. 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

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