METZ 27M
FLEXIBLE CEMENTITIOUS MEMBRANE

DESCRIPTION:

Metz 27M is a flexible membrane, used as an underlay beneath Metz ceramic tiling systems. Metz 27M meets the requirements of AS4858 as a Class II (medium extensibility) membrane. Can also be used in swimming pool overflow gutters and balance tanks with protective overcoat.

FEATURES AND BENEFITS:

- Waterproof - protects substrate from penetration of water and chemicals
- Suitable for use in swimming pools
- Tough but flexible - not a brittle product with good compression strength
- Excellent adhesion to concrete and cement screeds
- Liquid applied, eliminating joints and providing a continuous smooth lining for ceramic tile overlay
- Quality Accreditation - The management system governing the development and manufacture of this product is proudly ISO9001:2015 certified.

RECOMMENDED:

As a waterproof membrane used under Metz ceramic tiling systems in.

- Swimming pools
- Food & Beverage industry flooring
- Commercial kitchens, wash ups etc
- Bathrooms, balconies and other wet areas

Can be used in swimming pool overflow gutters and balance tanks with protective overcoat of Metz 9HB.

Can also be used as a bonded decoupling layer under ceramic tile systems.

NOT RECOMMENDED:

- For use without a protective tile or coating overlay - refer Metz for alternative products
- To waterproof structural joints in swimming pools or other structures. Refer Metz Hypalon Bandage
- To waterproof concrete where cracks are expected to move more than ±1.5mm
- In cases where negative hydrostatic pressure exists

PHYSICAL PROPERTIES: (Typical Values - Metz 27M Membrane)

Solid content:	78 - 82%
Density (mixed product):	1.35 - 1.45 g/cm^3
Tensile Strength (7 days):	1.9 MPa
Compatible Overlays:	Metz 27, Metz Epoxy Primer, Metz 9HB - for other products consult Metz

COVERAGE: Theoretical quantities (allow for wastage). Usage rates can vary depending upon conditions of concrete.

Metz 21:	50m^2/20 litre to achieve min of 200 micron DFT in 2 coats
Metz 27M Membrane:	16m^2/40kg kit for average 1.2mm Dry Film Thickness (allows 2 coats)

APPLICATION TEMPERATURE:

The recommended temperature range for application is 10°C to 40°C. In cool conditions indoors use fan to assist drying

Note: Metz has a fully detailed specification covering use of this material as part of a full system for permanent immersion conditions such as swimming pools. Refer to Metz for a copy for any such project and ensure compliance with its more specific instructions..

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INSTRUCTIONS FOR USE

1. **Temperature of Working Area**
   Maintain a temperature of between 10 and 40°C on substrate and air during mixing, application and cure.
   At temperatures below 10°C, Metz 27M may not cure fully. At temperatures above 40°C, working time will be greatly reduced. The material temperature should be below 35°C.

2. **Surface Preparation**
   All surfaces must be clean, smooth and dry. Remove all oil, grease and other contaminants that may inhibit bond. Concrete on grade should utilise a waterproof barrier beneath the slab.

   a) New Concrete - Surface must be free from laitance, form oils and curing compounds. Surface should have a fine wood float finish. Air holes bigger than 1-2mm can reflect through membrane and so must be filled with high strength, non shrink cementitious grout or epoxy filler such as Metz Epoxy Primer/P8. If using cementitious product ensure all residue is removed from surrounding areas prior to Metz 21 application.
   Any laitance should be removed by grinding or light abrasive blasting.
   Minimum cure times:

	Swimming Pools	General Construction
Concrete	42 days	28 days
Cement screeds	21 days	7 days
Metz PR1 Render	7 days	4 days

   b) Old Concrete - Concrete must be sound. Remove laitance, old coatings and attacked or deteriorated concrete. Chemically clean surface to remove any contaminants. Abrasive blast or high-pressure water blast to remove laitance and provide a uniform, textured surface.

3. **Mixing**
   Mix Liquid component with a slow speed drill for a minimum of 30 seconds and at least until the drum 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 should be used.

   b) Mixing Proportions - Primer and membrane are supplied as pre-made kits. If smaller quantities are required the mixing ratios are
   Metz 21   1:1 by weight or volume
   Metz 27M Membrane   1L of liquid to 1kg powder

   c) Mixing Procedure
   Metz 21 - Premix individual components to a uniform colour and consistency then combine each component by equal volume and mix thoroughly. Allow to stand for 5 minutes before application. Take care not to entrap air during mixing. This can cause pinholes. Refer to Metz 21 tecnhical data sheet.

   Metz 27M Membrane - Add 80% of the required quantity of liquid to mixing bucket and while mixing slowly add required quantity of powder. Continue mixing until a thick smooth paste is achieved. When the mixture is lump free add the remaining 20% liquid and continue mixing until homogeneous.
   Allow to stand for 3-5 minutes then remix for a few seconds before use.

   Remix every 20 to 30 minutes as required.
   Discard mixed product that has not been applied within 1 hour or has become too thick to use. Do not add water or further Metz 27M Liquid.

4. **Installation**
   (i) Treatment of external corners - Sharp edge must be removed to form a fillet min size 9mm x 9mm
   (ii) Treatment of internal corners - For reinforced concrete structures with continuous reinforcing at a change in direction use a 9 x 9mm polyurethane fillet beneath the membrane. For other substrate details consult Metz.
   (iii) Metz 21 - Apply 2 coats of Metz 21 or approximately 200 micton WFT per coat to achieve a total minimum DFT of 200 microns.
   Primer must be pinhole free prior to application of Metz 27M Membrane. Refer to Metz 21 techncial data sheet for details.
   Allow Metz 21 to dry for a minimum of 24 hours at 20°C.
   (iv) Metz 27M Membrane
   Apply mixed material to dried Metz 21 with brush or roller at a spread rate of $1.2m^2$ per L, or a 700 micron Wet Film Thickness.
   Allow 4 to 24 hours to dry then apply a second coat at 90° to original coating direction. Where a smoother finish is required eg for overtiling with mosaics a steel trowel can be used to flatten the surface after application by roller. Average Dry Film Thickness should be 1.2mm with a minimum of 1.0mm Dry Film Thickness at any point.

5. **Setting/Curing**
   Setting Time: 24 hours at 25°C
   Full cure   7 days at 25°C
   Allow final coat to cure for at least 24 hours before tiling. Allow longer in cool conditions. In swimming pool or other areas subject to be constantly immersed applications allow to cure for a minimum of 7 days before tiling.

6. **Storage**
   Store in sealed containers in a cool, dry environment. Under these conditions, minimum shelf life is 12 months.

7. **Safety Precautions**
   Use chemical goggles, PVC gloves and barrier cream. Avoid contact with skin and eyes. Ensure adequate ventilation.
   For full safety precautions refer to the Safety Data Sheets for each component.

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

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