METZ 19
WATER WASHABLE EPOXY

DESCRIPTION:
Metz 19 is a water washable, epoxy resin that can be used for open joint tiling (3 part mix) and vibration tile jointing (2 part mix) for jointing ceramic tiles. Metz 19 combines excellent adhesion and good chemical resistance with ease of application.

FEATURES AND BENEFITS:
- Chemically Resistant - Resists dilute acids and alkalis, as well as salts, oils and fats. Has better chemical resistance than many other water washable epoxy grouts. Refer to Metz Chemical Resistance chart.
- High Bond Strength - Excellent adhesion to tile and concrete surfaces.
- Hygienic - Dense impermeable surface, easily cleaned to reduce bacteria growth.
- Easy to Use - Excess grout is easily cleaned from tiles and equipment by water, rather than solvents. Long pot life.
- Safe Use - Low potential for allergic reaction as commonly associated with other epoxies. No solvents required for clean up.
- Quality Accreditation - The management system governing the development and manufacture of this product is proudly ISO9001:2015 certified.

RECOMMENDED:
For floor and wall tiling in the following areas:
- Food Processing
- Swimming Pools
- Hospitals and Institutions
- Beverage Manufacture
- Commercial Kitchens
- Pharmaceutical Manufacture
- Dairy Product Processing
- Fast Food Restaurants

NOT RECOMMENDED:
- For application at low temperatures or to damp surfaces. Refer Metz 5NF or Metz 70
- For light colours exposed to UV light where colour stability is critical. Refer Metz 11E
- For exposure to strong organic acids, oxidizing acids and solvents. Refer Metz 12P or Metz 6NF.

PHYSICAL PROPERTIES:

	(Typical Values)
Density:	1.70 - 1.80 g/cm^3 for open joint tiling 1.05 - 1.1 g/cm^3 for vibration tile jointing
Compressive Strength:	78 MPa
Tensile Strength:	28 MPa
Coefficient of Thermal Expansion:	45 x 10^{-6} per °C

COLOURS:

Standard colours	Black, Light Grey, Dark Grey, Ivory, Red and Antique White
Other colours	Manufactured to order.

COVERAGE:
Theoretical quantities (allow for wastage)

For open joint tiling 240 x 115mm tiles - 6mm x 20mm joints	2.7 kgs/sq.m (3 part material)
For open joint tiling 150 x 150mm tiles - 6mm x 12mm joints	1.7 kgs/sq.m (3 part material)
For jointing vibration tile jointing 198 x 198 x 18mm (square) - joint width 2mm	0.3 kg/sq.m (2 part material)
For jointing vibration tile jointing 198 x 98 x 18mm (rectangular) - joint width 2mm	0.5 kg/sq.m (2 part material)
For jointing vibration tile jointing 108 x 125 x 18mm (hexagonal) - joint width 2mm	1.0 kg/sq.m (2 part material)

APPLICATION TEMPERATURE:
The recommended temperature range for application of Metz 19 is 10°C to 35°C.
At temperatures below 10°C, curing will 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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INSTRUCTIONS FOR USE

1. Temperature of Working Area
   Maintain a temperature of between 10°C and 35°C on the Metz 19 components, brick or tile and substrate during mixing and application. Air temperature in the area where Metz 19 is to be applied should also be between 10°C and 35°C.
2. Surface Preparation
   Jointing - all surfaces to be clean and dry. Consult Metz if further details are required.
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 lowspeed 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 Procedure - Thoroughly mix liquid and hardener together first, in correct proportions. Add powder gradually with constant stirring.
   Note: Liquid to hardener ratio must not be altered under any circumstances. Powder proportion may be altered ±10% to suit requirements. Addition of excess powder can result in a porous joint. No powder is required to joint vibration fixed tiles.
   c) For open joint tiling
      i) Mixing Proportions (all colours except Ivory)

	By Weight	By Volume
L1 Liquid	2.6 parts	2.0 parts
19 Hardener	1.0 part	1.0 part
P1 Powder	13.0 parts	8.0 parts

      For colours other than white or ivory the liquid component L1 is factory tinted. For Ivory colour use neutral (untinted) liquid L1 and 19 Ivory powder. For Antique White use Neutral L1 liquid and P1 - Antique White powder.

      ii) Mixing Proportions (Ivory)

	By Weight	By Volume
Liquid L1 (Neutral)	2.6 parts	2.0 parts
Hardener	1.0 part	1.0 part
P1 Ivory Powder	10.0 parts	10.0 parts

      iii) Pot Life - Approximately 2 hours at 25°C. Pot life decreases with increase in temperature, and increases with decrease in temperature.
      iv) Installation - Ensure joints and tile edges are clean. Joint width should be 6mm nominal to enable joints to be completely filled. Joint depth should be equal to at least twice joint width. Apply mixed grout to joints by trowel or compressed air operated jointing gun. Ensure complete filling of the joints. Remove excess grout from tile surfaces with sponge or clean, absorbent material dampened with minimum amount of clean water before grout begins to set (usually within 45 minutes of applying).
      For vertical applications especially with wider joints the use of Metz PT Powder will thicken the material to help prevent sagging. Refer the Metz PT Powder data sheet for usage instructions.
   d) For vibration tile jointing
      i) Mixing Proportion for jointing vibration fixed tiles:

	By Weight	By Volume
L1 Liquid	2.6 parts	2.0 parts
19 Hardener	1.0 part	1.0 part

      ii) Pot Life at 20°C. Approximately 90 minutes. Note: Material should not be left in bulk after mixing as this will cause heat build-up and reduce pot life.
      iii) Installation - Application may vary for different tile surfaces and joint widths. For typical 2mm joints it is possible to prefill joints with sand to avoid air bubbles occurring. Broom clean, dry 30/60 sand across joints and remove excess.
      Apply mixed Metz 19 to tile surfaces with rubber squeegee. Allow material to settle in joint. Check joints after first application and apply more material if joints have sunk. Apply clean, dry fine sand to surface. Remove excess grout from tile surface with rotary scrubber or clean, absorbent material dampened with minimum amount of clean water before grout begins to set (usually within 45 minutes at 20°C).
      Note: Use of excess water when cleaning off will result in decreased hardness and chemical resistance of the joint surface. Surface may also discolour.
   e) Clean Up - Mixing equipment and tools can be cleaned with water prior to initial set of the grout.
4. Setting/Curing

	Setting Time	Full Cure
at 20°C	Overnight	7 Days

   Note: Minimum curing temperature is 10°C.
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. Use chemical goggles, PVC gloves and barrier cream.
   b) Powder - Avoid breathing dust. Use dust respirator and chemical goggles.

   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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