

# METZ 27

## PREMIUM CERAMIC TILE ADHESIVE



### DESCRIPTION:

Metz 27 is a two part synthetic rubber latex cementitious adhesive, which greatly exceeds the requirements of Australian Standard AS ISO 13007.1-2013 for a C2TES2 adhesive. Metz 27 is categorised as a highly deformable, improved cementitious adhesive with slip resistance and extended open time. Metz 27 can be used to bond a wide range of ceramic tile to various backgrounds, including concrete, sand/cement screed, fibre cement and other tiles.

Metz 27 can be manufactured using sulphate resisting cement for natural seawater pools - Metz 27SR.

### FEATURES AND BENEFITS:

- Exceeds requirements of AS ISO 13007.1-2013 for a C2TES2 adhesive.
- Exceeds requirements of AS 3958.1 for C2S1 adhesive for use in swimming pools.
- High bond strength to a wide range of materials.
- Can be used to bond highly vitrified or porcelain tiles including large format porcelain slabs.
- Highly flexible. Can take up substrate movements caused by expansion, vibration, thermal stress or other factors.
- Low-slump. Can be used to fix large format tiles to sloping and vertical surfaces.
- Suitable for installation of large scale porcelain 'slabs'

### RECOMMENDED:

As a thin bed tile adhesive for ceramic tiles, including highly vitrified and porcelain tiles to the following substrates:

- Concrete
- Sand/Cement screeds and renders
- Fibre Cement Sheet
- Many other surfaces (refer Metz for details)

Can be used in continuously immersed situations such as swimming pools including saltwater chlorinated pools. For pools using sewerage Metz 27SR (sulphate resisting) is available. Contact Metz for details.

### NOT RECOMMENDED:

- For bed thicknesses above 6mm.
- For areas subjected to strong chemicals

### PHYSICAL PROPERTIES: (Typical Values)

Density g/cm <sup>3</sup> :	1.30 - 1.40	
Following properties tested in accordance with AS ISO 13007.2-2013		
Characteristic	Requirement*	Result
Tensile adhesion strength	≥ 1.0 N/mm <sup>2</sup>	Pass
Tensile adhesion strength after water immersion	≥ 1.0 N/mm <sup>2</sup>	Pass
Tensile adhesion strength after heat aging	≥ 1.0 N/mm <sup>2</sup>	Pass
Adhesion strength after freeze-thaw cycle	≥ 1.0 N/mm <sup>2</sup>	Pass
Open time: tensile adhesion test	≥ 1.0 N/mm <sup>2</sup>	Pass
Special Characteristic		
Slip (T)	≤ 0.5mm	Pass
Extended open time (E) after 30 minutes	≥ 0.5 N/mm <sup>2</sup>	Pass
Transverse deformation (S) for S2 adhesive	≥ 5mm	Pass
Shear adhesion strength (ISO 13007:2)	No requirement	Pass
Standard Colour:	Off white	

\* Requirement for C2 "Improved Adhesive"

### COVERAGE: Theoretical quantities (allow for extra wastage or back buttering)

1 x 20kg bag powder mixed with 5.7kgs liquid (so 25.7 mixed kg) will cover approximately

- 9m<sup>2</sup> with a 6x6mm notched trowel (2.8 mixed kg/m<sup>2</sup>)
- 7.3m<sup>2</sup> with a 8x8mm notched trowel (3.5 mixed kg/m<sup>2</sup>)
- 5.9m<sup>2</sup> with a 10x10mm notched trowel (4.3 mixed kg/m<sup>2</sup>)

For swimming pool installation Metz recommends back buttering and using at least an 8x8mm notched trowel.

**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. Please refer to Metz for a copy for any such project.



## INSTRUCTIONS FOR USE

### 1. Temperature of Working Area

Maintain a temperature of between 10°C and 35°C on Metz 27 liquid and powder, tiles, substrate and air during mixing, application and cure. At temperatures below 10°C Metz 27 may not cure fully. At temperatures above 35°C, initial set will take place too rapidly and open time will be greatly reduced. This difficulty can be overcome by mixing in a cooler area, cooling components and mixing equipment.

### 2. Surface Preparation

All surfaces must be clean and dry. Remove all oil, grease and other contaminants that may inhibit bond. Concrete surfaces must be free from laitance, form oils and curing compounds and be at least 14 days old.

### 3. Mixing

#### a) Equipment

Mechanical mixing is recommended. A low speed mixer should be used. High speed mixers can break down components in the material and cause air entrapment.

#### b) Mixing Proportions

	By Weight	By Volume
Metz 27 Liquid	1	1
Metz 27 Powder	3.5	2.4

The mixing proportions may be adjusted slightly to suit requirements.

#### c) Mixing Procedure

Place liquid in mixing container. Add powder gradually with constant stirring. Mix for at least 3 minutes until a smooth, lump free paste is obtained.

Note: Ensure you have the latest mixing instructions, refer [www.metz.net.au](http://www.metz.net.au) for current data sheet version.

#### d) Pot Life

3-4 hours at 20°C.

#### e) Open time (time after application of adhesive during which tiles can be laid). At least 30 minutes at 23°C and 50% relative humidity. Note that this time will decrease with increase in temperature, decrease in humidity or increase in airflow.

Note: Increase in temperature will reduce both pot life and open time. Every 10°C will approximately halve both times.

### 4. Application

Spread only sufficient adhesive to cover an area that can be tiled within the open time of the product (30 minutes at 23°C). Do not lay tiles over adhesive that has skinned.

For Metz swimming pool tiles use a minimum 8x8mm notched trowel.

For mosaic and flat back tiles having dimensions less than 200x200mm. Use 6x6mm notched trowel

For larger tile sizes the following notched trowel sizes are recommended:

200x200 mm - 8 mm notched trowel

250x250 mm - 10 mm notched trowel

300x300 mm - 12 mm notched trowel

400x400 mm and above - 12 mm notched trowel

plus buttering of the tile.

For Metz tiles used in immersion conditions such as pools Metz recommends back buttering each tile and then placing tiles into Metz 27 systematically applied with suitably sized notched trowel. Immediately upon placement move the tile perpendicular to the adhesive ribs back and forth approx. 10-15mm. Remove one tile at regular intervals to ensure complete coverage is being achieved. For full details refer Metz Pool Tiling specification.

Clean off excess adhesive with water before it begins to set.

### 5. Setting/Curing Time

Setting time: Overnight at 20°C

Metz 27 achieves approx. 65% of its 28 day strength after 7 days.

Protect adhesive from temperatures outside 5-35°C for the first 4 days after laying.

### 6. Storage

Protect Metz 27 liquid from frost and low temperatures. Store powder in a cool, dry place. Protect bags from moisture. Under these conditions, minimum shelf life is 12 months.

### 7. Safety Precautions

Avoid contact with skin and eyes. Wear gloves and safety glasses. Avoid breathing dust. Wear dust mask when mixing.

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](http://www.metz.net.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.