

SECTION A SUMMARY

A.1 INFORMATION

1. This work method statement (WMS) covers the systems to install Mineralite Tiles in accordance with MAPEI's technical data sheets (TDS) and guidelines. Relevant standards, architect's drawings, specifications, and substrate manufacturers guidelines are reviewed by Mapei in creating this document. The project stakeholders are responsible in ensuring the system is compliant with the appropriate buildings codes, Australian Standards, and any other project design requirements applicable to the project.
2. MAPEI provides technical data sheets (TDS) and safety data sheets (SDS) for all products which should be read in conjunction with this Work Method Statement (WMS). Where necessary, conduct a chemical risk assessment and SWMS to ensure each products' correct and safe use. These documents can be obtained from www.mapei.com.au, or by clicking directly on the products listed within the PDF.
3. Products in this WMS can contribute towards satisfying the relevant Green Star credits. The VOC content of products can be found under section 9 on the product SDS, while VOC emissions certificates can be found on the product webpage.
4. Confirmation must be obtained from the manufacturer that the selected tile is fit for purpose for the intended application and service environment.

B.2 SUBSTRATE PREPARATION

All substrates must be structurally sound, dry, solid, and stable. Any laitance, dust, grease, oil, paint, release agent or curing compounds present on the surface of the above listed substrates that may inhibit bond must be mechanically removed. The substrates should then be cleaned and prepared in accordance with the relevant standards, substrate manufacturer's instructions, and as per the MAPEI technical data sheets (TDS).

If a moisture vapour barrier (MVB) is required, please contact Mapei for advice on a suitable MVB.

Substrates such as plasterboard, fibre cement boards, and plywood are generally not suitable in external environments. Some proprietary sheets may be suitable, but it is imperative that advice from the manufacturer is sought. There may be limits such as the height of installation, weight of tiling, degree of exposure to weather, and the need for mechanical fixing.

It is advisable to use mechanical fixings, such as metal angles or pin fixings, where the tile/stone is to be applied at a wall height exceeding 3 m above the ground with a stone/tile mass greater than 32 kg/m² or a size of 600x600 mm or larger.

A.3 REFERENCES

A. Product TDS & SDS:

MAPEI provides technical data sheets (TDS) and safety data sheets (SDS) for all products which should be read in conjunction with this Short Form Specification. Where necessary, conduct a chemical risk assessment and SWMS to ensure each product's correct and safe use. These documents can be obtained from www.mapei.com.au, or by clicking directly on the **PRODUCT** name listed within the PDF.

B. Australian Standard(s):

1. AS 3958:2023 – Installation of ceramic and stone tiles
2. AS 3740:2021 – Waterproofing of domestic wet areas
3. AS 4654.2-2012 – Waterproofing membranes for external above-ground use Design and installation
4. AS 4654.1-2012 – Waterproofing membranes for external above-ground use Materials
5. AS/NZS 4858:2004 – Wet area membranes (Reconfirmed 2020)

C. MAPEI Technical Notebook(s):

1. [Surface Preparation Requirements – Ceramic and Stone Installation System](#)
2. [Guide for the Installation of Ceramic Materials](#)
3. [Grout Troubleshooting Guide](#)
4. [Instructions for Installing Large Format Ceramic Tiles](#)
5. [Laying Stone Materials](#)

D. Other References:

1. Australasian Timber Flooring Association (ATFA)
2. Miracle Stone construction Manual



SECTION B SYSTEM

B.1 SMOOTHING MORTAR – CEMENTITIOUS SUBSTRATES WHERE REQUIRED

A. PLANITOP SMOOTH & REPAIR R4

Structural R4-class, rapid-setting, shrinkage-compensated, thixotropic, fibre-reinforced, cementitious mortar, applied in a single layer from 3 to 40 mm thick, for repairing and smoothing concrete.

APPLICATION:

1. Saturate the substrate with water and allow any excess or free-standing water to evaporate (Surface saturated dry, SSD) before applying the product.
2. Mix the mortar with water and applying with a smooth trowel in a single layer.
3. Ensure the mortar is appropriately cured and protected for the first 24 hours.

B.2 WATERPROOFING MEMBRANE

A. MAPELASTIC SMART

Two-component, high-flexibility cementitious mortar. Certified to AS 4654.1 and AS/NZS 4858. UV resistant. Suitable for waterproofing balconies, terraces, bathrooms, swimming pools etc.

APPLICATION:

1. Prime non-absorbent substrates with **ECO PRIM GRIP** prior to waterproofing to improve adhesion.
2. Apply a waterproofing tape at all junctions and joints. This can be made with **MAPEBAND EASY** or **MAPEBAND SA**.
3. Apply the waterproofing membrane in at least two coats using a trowel, roller, brush, or spray. Ensure the minimum wet film thickness is achieved as required by the chosen product.
4. Along joints of FC sheeting, reinforce the membrane with **MAPETEX SEL** embedded in the first coat of the waterproofing membrane.

B.3 TILE ADHESIVE

Choose from the following options:

A. ULTRALITE S2 T FLEX

One-component, high-performance, highly deformable, lightweight, cementitious adhesive with extended open time and extremely high yield. Easy to apply by trowel with excellent back-buttering capacities, for ceramic, mosaic, and stone tiles. Particularly suitable for laying large format tiles.

B. KERAQUICK MAXI S1 + LATEX PLUS

High-performance, highly deformable, rapid-setting and hydrating, cementitious adhesive mixed with latex, with very low emission of volatile organic compounds for ceramic tiles and in particular for stone, including large formats. Suitable for application in layers up to 15 mm thick.

C. KERALASTIC T

Two-component, high-performance polyurethane adhesives for ceramic tiles and stone material.

APPLICATION:

1. Some natural and engineered stones can be prone to warping (moisture sensitivity) and staining. Therefore, Mapei recommends when using stone materials to consult the manufacturer/supplier for any recommendations or guidelines. Please refer to the Mapei technical notebook 'Laying Stone Materials' for more information.
2. Prepare and mix adhesive in strict accordance with the packaging and TDS.
3. To ensure good adhesion, apply with pressure a thin coat of the adhesive with the straight edge of the trowel. Immediately follow this with a layer of adhesive at the correct thickness using a suitable notched trowel in straight lines.
4. Do this method to both the substrate and back of the tile (*Double-buttering method*) ensuring the notches are in the same direction.
5. Ensure the adhesive stays "fresh" and does not form a skin, especially in hot environments, prior to the application of the tile.
6. Place the tile firmly into position wet-on-wet with a slight back and forward motion perpendicular to the trowel lines to collapse the notches.
7. It is recommended to periodically remove and assess adhesive coverage. Continue if acceptable, otherwise reassess trowel and application technique.

B.4 TILE GROUT

Choose from the following options:

- A. ULTRACOLOR PLUS** (2801-8-2024 en-au (AU))
High-performance, anti-efflorescence, non-irritating quick-setting and drying polymer-modified mortar with water-repellent DropEffect® and mould resistant BioBlock® technology for grouting joints from 2-20 mm wide. With low emission of VOC and CO₂ fully offset in the entire life cycle.
- B. KERAPOXY EASY DESIGN** (9001-9-2024 en I (IT))
Two-component, decorative, acid-resistant epoxy grout, ideal for glass mosaics, with easy workability and very easy to clean. May also be used as an adhesive.
- C. KERAPOXY** (141-8-2021-gb)
Two-component acid-resistant epoxy grout (available in 17 colours) for joints of at least 1mm. Can also be used as an adhesive.

APPLICATION:

1. Ensure the joints are clean, free of dust and empty down to at least 2/3 of the thickness of the tiles. It is then suggested to carry out a 1 m² sample area, along with the silicone, to check cleanability and for approval by the designer.
2. Prepare and mix grout in strict accordance with the packaging and TDS.
3. Fill the joints completely with the grout using the appropriate trowel or rubber float, ensuring the joints are completely compacted with no unevenness.
4. Remove excess grout while still fresh from the surface of the tile by moving the float diagonally across the joints.
5. **ULTRACOLOR PLUS:** When the grout loses its plasticity and becomes opaque, clean off excess grout with a hard, damp sponge working in a diagonal direction to the joints. Rinse sponge regularly using clean water.
6. **KERAPOXY EASY DESIGN** or **KERAPOXY:** After grouting, cleaning of the floors and walls should commence immediately before the product dries. Wet the surface thoroughly and emulsify with an abrasive pad taking care to not wash-out the joints. **ULTRACARE KERAPOXY CLEANER** is recommended for removing grout haze. **ULTRACARE EPOXY OFF GEL** can be used to remove any unwanted epoxy grout residue.

B.5 SILICONE

- A. MAPESIL LM** (408-6-2025 en-IT)
Neutral mould-resistant silicone sealant with very low emissions of VOC for stone and marble.

APPLICATION:

1. Movement joints to be installed in accordance with AS 3958-2023.
2. To facilitate the finishing of the sealant after its application and create a smooth, compact surface without hollows that could ease dirt pick up and lead to future formation of moulds use **ULTRACARE SMOOTH SILICONE**.

