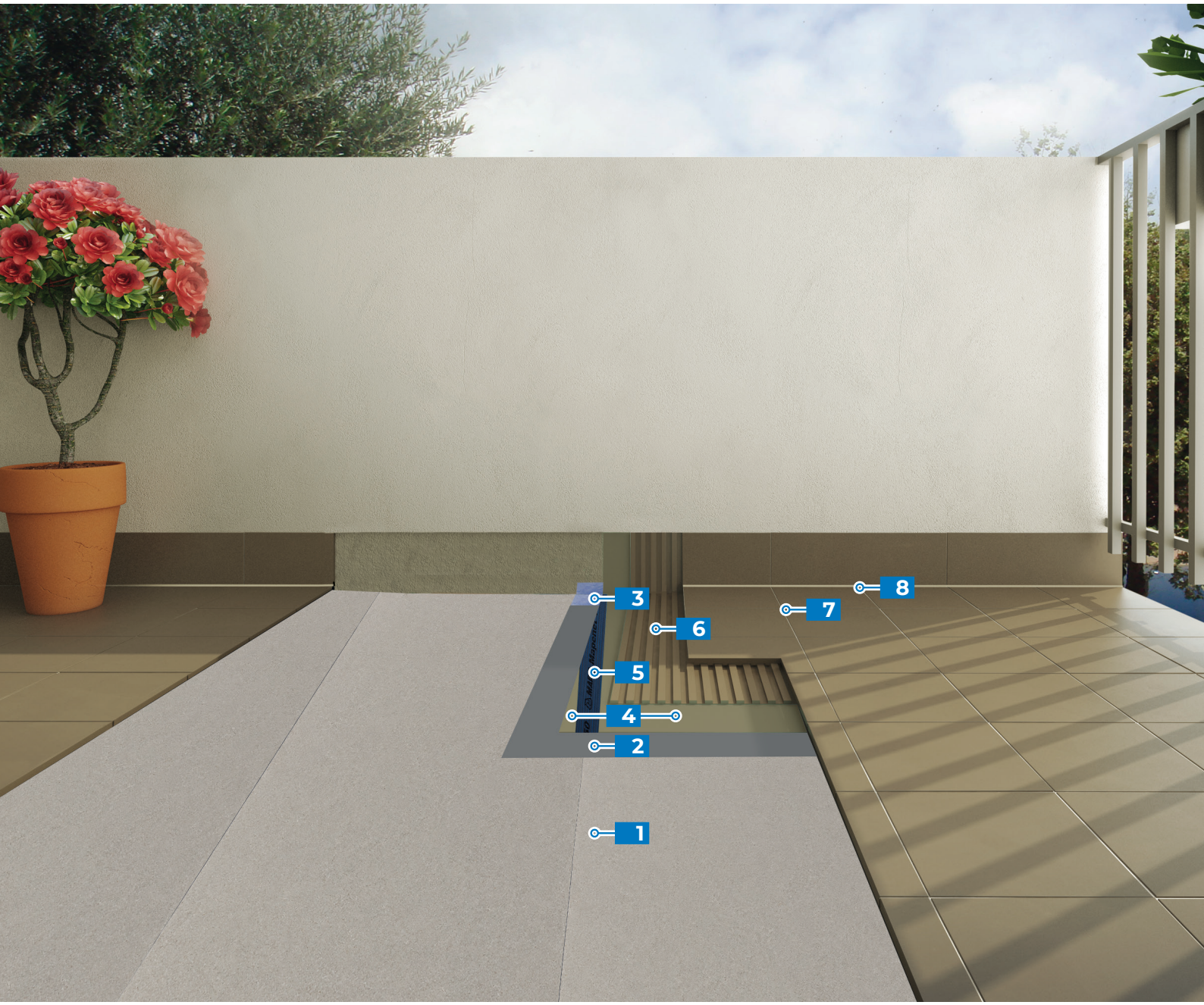
SYSTEM FOR THE **INTALLATION OF TILES ON BALCONIES AND TERRACES OVER MAGNUM BOARD**

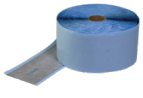




1
Magnum board



2
Bonding primer
Eco Prim Grip



3
Waterproof bandage
Mapeband SA



4
Waterproofing membrane
Mapelastic Smart



5
Fibre glass reinforcement
Mapenet 150



5
Adhesive
Kerabond Plus + **Isolastic**



6
Grout
Ultracolor Plus



7
Sealant
Mapesil AC or **Mapesil LM**

Please refer to the corresponding Work Method Statement for complete list of suitable products and installation information

PART 1 SYSTEM

1.1 INFORMATION

- This work method statement covers the system to install ceramic/stone tiles over Magnum flooring underlay and tile backer in external areas.
- 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.
- 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.
- This Work Method Statement (WMS) provides general recommendations only and is not intended to be interpreted as a generic specification for the application/installation of the listed products. As each project differs in exposure and site conditions, specific recommendations may vary from the information contained above. For recommendations for specific applications/installations please contact MAPEI Australia Pty Ltd.

1.2 USER NOTES

1.3 RELEVANT DOCUMENTATION

A. Australian Standard(s):

1. AS 3958:2023 – Installation of ceramic and stone tiles
2. AS 4654.2-2012 – Waterproofing membranes for external above-ground use – P.2: Design & installation
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

B. MAPEI Technical Notebook(s):

1. Ceramic Substrate Preparation Guide
2. Guide for the Installation of Ceramic Materials
3. Grout Troubleshooting Guide
4. Laying Stone Materials

C. Other References:

1. ASAA Natural Stone Manual

PART 2 TILING SYSTEM

2.1 SUBSTRATE PREPARATION

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

Tiles require the substrate to which it's laid over to be rigid, stable and free of deflection. Some flooring systems present a risk of excessive deflection which can increase the risk of the tile cracking as deflection can exceed the recommended L/360 limit stated in AS 3958:2023. Some stone tiles can be more sensitive to movement, therefore this should be restricted even further to L/480. Seek advice from tile supplier.

2.2 PRIMER

A. ECO PRIM GRIP

Multi-purpose, ready-to-use, low odour, bonding promoter primer with a very low emission of volatile organic compounds (VOC) for render, smoothing and levelling compounds and cementitious adhesives, for internal and external application.

- **APPLICATION:**
  - ◊ Stir ready-to-use primer prior to application, no dilution is required.
  - ◊ Apply primer with either a roller or brush.

2.3 WATERPROOFING MEMBRANE

- **NOTE:** Prior to the application of the waterproofing membrane:
  - ◊ Use a **MAPEFLEX** product as general sealant/adhesive where required.
  - ◊ Ensure all pipe penetrations & angles are primed **ECO PRIM GRIP** to create a suitable mechanically keyed surface prior to the waterproofing.
  - ◊ Apply a waterproofing bandage with **MAPEBAND SA** at wall/wall, wall/floor junctions and all other areas where movement is expected.
  - ◊ Ensure substrate has adequate falls in accordance with AS 4654.2-2012.

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. Applied at a wet film thickness (WFT) between 1.0 mm per coat. The total dry film thickness (DFT) of the two or more coats must be at least 1.6 mm.

APPLICATION:

- ◊ Waterproofing membrane must be applied to walls and floors in a minimum of two even coats to form a final flexible, continuous dry film thickness in accordance with which membrane was used.
- ◊ Lay **MAPENET 150** alkali-resistant glass fibre mesh into the first wet coat of the waterproofing membrane, ensuring the mesh is completely embedded, in strict accordance with the TDS.

2.4 ADHESIVE

- **NOTE:** 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.

Adhesive to be chosen from the following options:

A. **KERAQUICK MAXI S1 + LATEX PLUS**

High performance, deformable, fast setting cementitious adhesive, for ceramic tiles and stone material (Class A/B*) with a latex additive to elasticize the adhesive.

B. **KERABOND PLUS + ISOLASTIC**

Cement based powder with superior bond strength suitable for all types of tiles and natural stone (non-moisture sensitive), with a latex additive to improve the adhesive's characteristics and to elasticize the adhesive.

- **APPLICATION:**
  - ◊ Prepare and mix adhesive in strict accordance to the packaging and TDS.
  - ◊ 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.
  - ◊ Adhesive should also be pressure applied to the back of the tile/stone with a thin coat using the straight edge of the trowel (*back-buttering*).
  - ◊ Ensure the adhesive stays "*fresh*" and does not form a skin, especially in hot environments, prior to the application of the tile/stone.
  - ◊ Place the tile/stone firmly into position wet-on-wet with a slight back and forward motion perpendicular to the trowel lines to collapse the notches.
  - ◊ It is recommended to periodically remove and assess adhesive coverage. Continue if acceptable, otherwise reassess trowel and application technique.

2.5 GROUT

- **NOTE:** To estimate the consumption rate according to specific project data, use the **MAPEI GROUTS AND SEALANTS CALCULATOR**.

A. **ULTRACOLOR PLUS**

High-performance, anti-efflorescence, quick-setting and drying polymer-modified mortar with water-repellent technology.

- **APPLICATION:**
  - ◊ Mix the grout and fill the joints completely using a trowel or rubber float. Ensuring the joints are completely compacted with no unevenness.
  - ◊ Remove excess grout while still fresh from the surface of the tile/stone by moving the float diagonally across the joints.
  - ◊ **ULTRACOLOR PLUS***:* When the grout loses plasticity and becomes opaque, clean excess grout with a hard, damp sponge working diagonal to the joints. Rinse sponge regularly using clean water.

2.6 SILICONE

Silicone to be chosen from the following options:

A. **MAPESIL AC**

Solvent-free, acetic crosslinking mildew resistant silicone for ceramics and porcelain.

B. **MAPESIL LM**

Neutral mould resistant silicone sealant for stone and marble.

- **APPLICATION**
  - ◊ Movement joints should be installed in accordance with AS 3958:2023.