

SYSTEM FOR **INSTALLATION OF LARGE FORMAT TILES**

C12



Wall

Floor



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 large format tiles, in accordance with industry best practice, relevant standards and as per MAPEI technical data sheets (TDS).
- 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.

1.2 USER NOTES

1.3 RELEVANT DOCUMENTATION

A. Australian Standard(s):

1. AS 3958.1-2007 – Ceramic Tiles; Part 1: Guide to the Installation of Ceramic Tiles
2. AS 3740-2021 – Waterproofing of domestic wet areas
3. AS 4654.2-2012 – Waterproofing membranes for external above-ground use – Part 2: Design and installation

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](#)
5. [Instructions for Installing Large Format Ceramic Tiles](#)
6. [Manual for Installing Large Format Ceramic Tiles](#)

C. Other References:

1. ASAA Natural Stone Manual

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.



1.4 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).

1.5 LEVELLING MATERIAL

Levelling material to be chosen from the following options:

A. UC LEVELLER - ☐

Fast hardening levelling smoothing compound from 3 to 40 mm. Can be increase to 70 mm when aggregate is added. Allow 24 hours of drying before applying subsequent product. Applied in dry internal floors.

• **APPLICATION:**

- ◇ Firstly apply primer **ECO PRIM T PLUS** with a brush or roller diluted with 2 parts water.
- ◇ Spread the levelling compound in thicknesses from 3 to 70 mm per application, using a large metal trowel or float in accordance with the TDS.

B. NIVORAPID - ☐

Ultra-fast setting, thixotropic, cementitious levelling compound for horizontal and vertical surfaces for 1 to 20 mm thick layers. Applied in internal floors and walls.

• **APPLICATION:**

- ◇ Mix and apply using a long metal trowel in accordance with the TDS.

C. 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. Applied in all areas (internal/external, dry/wet, floors/walls).













• **APPLICATION:**

- ◇ Saturate the substrate with water, then wait for any excess water to evaporate.
- ◇ Apply the mortar with a smooth trowel in a single layer from 3 to 40 mm in thickness.



1.6 WATERPROOFING MEMBRANE - IF REQUIRED

- **NOTE:** Prior to the application of the waterproofing membrane:
 - ◇ Ensure all pipe penetrations & angles are primed with **ECO PRIM GRIP PLUS**. Ensure penetrations are appropriately detailed.
 - ◇ Use a **MAPEFLEX** product as general sealant/adhesive where required.
 - ◇ Ensure all wall/wall & wall/floor junctions are treated with a bandage or flexible fillet, and all structural joints are detailed using the options in the below table:

	JUNCTIONS / JOINTS			STRUCTURAL JOINTS
	BANDAGE	FLEXIBLE FILLET		
PRODUCT	MAPEBAND EASY	MAPEBAND SA	MAPEFLEX	MAPEBAND TPE
A.			 - 35 mm reinforced with MAPETEX SEL	
B.	 - overlaps sealed with MAPEFLEX		 - 12 mm	
C.	 - overlaps sealed with MAPEFLEX		 - 12 mm	

Waterproofing membrane to be chosen from the following options:

- A. **MAPELASTIC SMART**
Two component, Class II high flexibility cementitious mortar applied by trowel or roller for waterproofing balconies, bathrooms and swimming pools. Applied at 1 mm per coat. Certified to AS/NZS 4858:2004 and AS 4654.1-2012.
- B. **MAPELASTIC AQUADEFENSE**
Ready-to-use, ultra-quick drying, Class III flexible liquid membrane for internal and external waterproofing applications. Applied at 0.4 mm per coat. Certified to AS/NZS 4858:2004 and AS 4654.1-2012.
- C. **MAPEGUM WPS – Internal areas only**
Fast drying Class III flexible liquid membrane for waterproofing for internal waterproofing applications. Applied at 0.4 - 0.8 mm per coat.

- **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.
 - ◇ Where required, apply a reinforcement fabric with **MAPETEX SEL** or **MAPETEX 50** embedded in the first coat in accordance with the TDS.



1.7 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.
- ◇ The following table provides general adhesive recommendations based on installation location, with or without tile reinforcement mesh, and depending on the size of the tile. For a complete list of recommended adhesives, refer to the [Guide for the Installation of Ceramic Materials](#).

Adhesive to be chosen from the following options:

Area	Normal-Set	Rapid-Set
Internal*	ULTRALITE S1 FLEX - <input type="checkbox"/>	KERAQUICK MAXI S1 - <input type="checkbox"/>
Internal* (Mesh, Side ≤ 1 m)	ULTRALITE S1 FLEX - <input type="checkbox"/>	KERAQUICK MAXI S1 - <input type="checkbox"/>
Internal (Mesh, Side > 1 m)	ULTRALITE S2 FLEX - <input type="checkbox"/>	KERAQUICK MAXI S1 + LATEX PLUS - <input type="checkbox"/>
External Wall (Side ≤ 1 m)	KERABOND PLUS + ISOLASTIC 50 - <input type="checkbox"/>	GRANIRAPID - <input type="checkbox"/>
External Wall (Side > 1 m)	KERABOND PLUS + ISOLASTIC - <input type="checkbox"/>	KERAQUICK MAXI S1 + LATEX PLUS - <input type="checkbox"/>
External Wall (Mesh, Side ≤ 1 m)	KERABOND PLUS + ISOLASTIC - <input type="checkbox"/>	KERAQUICK MAXI S1 + LATEX PLUS - <input type="checkbox"/>
External Wall (Mesh, Side > 1 m)	KERALASTIC T - <input type="checkbox"/> KERAPOXY ADHESIVE - <input type="checkbox"/>	KERAQUICK MAXI S1 + LATEX PLUS - <input type="checkbox"/>

* On plasterboard or fibre cement-based substrates, use Ultralite Flex S2 or Keraquick Maxi S1+Latex Plus.

• **APPLICATION:**

- ◇ Prepare and mix adhesive in strict accordance to the packaging and TDS.
- ◇ To ensure good adhesion, apply 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. Do this method to both the substrate and back of the tile (*Double-buttering method*) ensuring the notches are in the same direction.
- ◇ Pay particular attention to the open time and pot life of the adhesive, ensuring the adhesive stays "*fresh*" and does not form a skin. Especially in hot environments and when using a rapid-set adhesive.
- ◇ 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.
- ◇ It is recommended to periodically remove and assess adhesive coverage. Continue if acceptable, otherwise reassess trowel and application technique.



1.8 GROUT

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

Grout to be chosen from the following options:

- A. **ULTRACOLOR PLUS** - ☐ **- GOOD SOLUTION**
High-performance, anti-efflorescence, quick-setting and drying polymer-modified mortar with water-repellent technology.
- B. **KERAPOXY** - ☐ **- BEST SOLUTION**
Two component, acid resistant epoxy grout for joints of at least 3 mm.
- **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.
 - **CLEANING:**
 - ◇ **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.
 - ◇ **KERAPOXY:** After grouting, cleaning 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. **KERAPOXY CLEANER** is recommended for removing grout haze. Refer to TDS for further information.

1.9 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 3958.1-2007.



NOTES

- PRODUCTS FOR CERAMICS AND STONE MATERIAL
- PRODUCTS FOR RESILIENT AND TEXTILE MATERIALS
- PRODUCTS FOR TIMBER FLOORING
- PRODUCTS FOR CEMENTITIOUS AND RESIN FLOOR COVERING
- BUILDING SPECIALTY PRODUCTS
- ADMIXTURES FOR CONCRETE
- PRODUCTS FOR STRUCTURAL STRENGTHENING
- PRODUCTS FOR MASONRY RESTORATION
- WALL PROTECTIVE AND DECORATIVE COATINGS
- WATERPROOFING
- PRODUCTS FOR UNDERGROUND CONSTRUCTIONS (UTT)
- ELASTIC SEALANTS AND ADHESIVES
- PRODUCTS FOR SPORTS FLOORING
- CEMENT ADDITIVES (C-ADD)



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