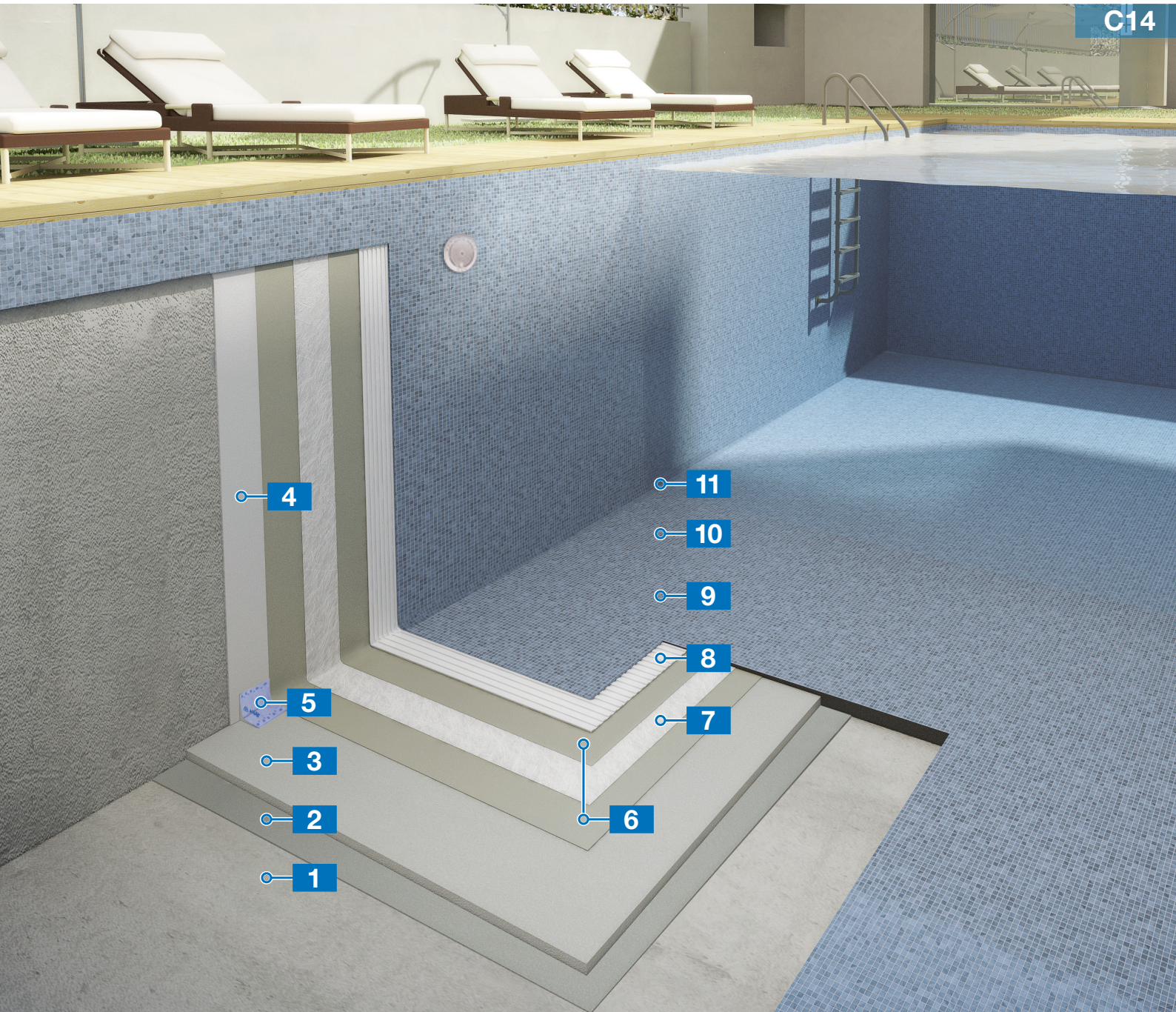


# WATERPROOFING SYSTEM FOR THE INSTALLATION OF GLASS MOSAICS IN SWIMMING POOLS

C14



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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 glass mosaics in swimming pools, 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](http://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
- B. MAPEI Technical Notebook(s):**
1. [Waterproofing Baths and Swimming Pools](#)
  2. [Ceramic Substrate Preparation Guide](#)
  3. [Guide for the Installation of Ceramic Materials](#)
  4. [Grout Troubleshooting Guide](#)

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.

When adding chemicals to the spa and/or pool, ensure they are diluted with water, and are NOT poured directly onto any sections of the covering (e.g. tiles, grout, joints etc.), as this can damage the integrity of the product.



#### 1.4 SUBSTRATE PREPARATION

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All substrates (e.g. concrete, shotcrete) 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 ENGINEERED SCREED - FLOORS

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**Engineered Screed to be chosen from the following options:**

**A. TOPCEM PRONTO** -

Pre-blended, normal setting, controlled shrinkage engineered screed. Allow 24-48 hours of drying before applying subsequent product.

**B. MAPECEM PRONTO** -

Pre-blended, rapid-setting, controlled shrinkage engineered screed. Allow 3-4 hours of drying before applying subsequent product.

• **APPLICATION:**

- ◇ Ensure a slurry coat of **PLANICRETE SP** mixed with either **MAPECEM** or **TOPCEM PRONTO SLURRY** has been applied depending on chosen product. Refer to the TDS for mixing details.
- ◇ Mix engineered screed in strict accordance with the TDS, paying particular attention to the surrounding environmental conditions.
- ◇ Ensure screed is applied over the slurry coat whilst the slurry coat is still wet at thickness of 10 – 70 mm.
- ◇ Ensure screed has adequate falls.

#### 1.6 SMOOTHING MORTAR - WALLS

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- **NOTE:** Prior to the application of the smoothing mortar, ensure all pipe penetrations, light fittings, water circulation and filtration units are appropriately detailed.

**Smoothing mortar to be chosen from the following options:**

**A. PLANITOP FAST 330** -

Quick setting, fibre reinforced cementitious mortar for internal and external floors and walls, applied at a thickness from 3 to 30 mm to smooth out irregularities.

**B. 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:**

- ◇ Ensure substrate is prepared in accordance with the TDS to have a roughened surface that has been saturated and left for excess water to evaporate.
- ◇ Apply a skim coat layer to the substrate and then immediately apply a layer at the thickness required.
- ◇ Applied such that the trueness is within 4 mm across a 2 m straightedge.



**1.7 WATERPROOFING MEMBRANE**

- **NOTE:** Prior to the application of the waterproofing membrane:
  - ◇ Priming:
    1. For either membrane, if the substrate contains high moisture content, use **PLANISEAL MR** -  as a moisture regulator.
    2. Before applying the **MAPELASTIC FOUNDATION**, apply a coat of **PRIMER 3296** (550-11-2003) with a brush or roller, diluted 1:1 with water. Not required if **PLANISEAL MR** was used.
  - ◇ Ensure all wall/wall & wall/floor junctions are treated with a bandage or flexible fillet using the options in the below table:

PRODUCT	JUNCTIONS / JOINTS	
	BANDAGE	FLEXIBLE FILLET
	<b>MAPEBAND EASY</b>	<b>MAPEFLEX</b>
<b>A.</b>	<input type="checkbox"/>	<input type="checkbox"/> - 35 mm reinforced with <b>MAPETEX SEL</b>
<b>B.</b>	<input type="checkbox"/>	---

**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 FOUNDATION**

Two component, flexible cementitious membrane for waterproofing concrete surfaces subject to both positive and negative water pressure.

• **APPLICATION:**

- ◇ Waterproofing membrane must be applied in at least two coats by trowel or roller within 60 minutes of it being mixed. Waterproofing membrane applied at a thickness of at least 1 mm per coat.
- ◇ It is recommended to lay **MAPENET 150** -  alkali-resistant glass fibre mesh or a reinforcement fabric with **MAPETEX SEL** - , into the wet first coat of the waterproofing membrane, ensuring it is completely embedded, in strict accordance with the TDS.

**1.8 OSMOTIC CEMENTITIOUS MORTAR - SCUM GUTTERS, IF REQUIRED**

**A. PLANISEAL 88** -

Osmotic cementitious mortar suitable for contact with drinking water, for waterproofing masonry and concrete structures.

• **APPLICATION:**

- ◇ Apply mortar with a brush or trowel in a minimum of 2 coats.
- ◇ Ensure previous coat is sufficiently dry before subsequent applications.
- ◇ The final thickness should be approximately 2-3 mm.



## 1.9 ADHESIVE

**Adhesive to be chosen from the following options:**

	PRODUCT	CLASSIFICATION (AS ISO 13007-1)	SETTING SPEED
<input type="checkbox"/>	<b>KERAFLEX MAXI S1</b>	C2 TE S1	Normal Set
<input type="checkbox"/>	<b>KERAFLEX EASY S1</b>	C2 E S1	
<input type="checkbox"/>	<b>ULTRALITE S1 FLEX</b>	C2 TE S1	
<input type="checkbox"/>	<b>ULTRALITE S2 FLEX</b>	C2 TE S2	
<input type="checkbox"/>	<b>KERABOND PLUS + ISOLASTIC 50</b>	C2 S1	
<input type="checkbox"/>	<b>KERABOND PLUS + ISOLASTIC</b>	C2 S2	
<input type="checkbox"/>	<b>KERAPOXY ADHESIVE</b>	R2 T	
<input type="checkbox"/>	<b>KERAPOXY / KERAPOXY DESIGN</b>	R2 T	
<input type="checkbox"/>	<b>KERAQUICK MAXI S1</b>	C2 FT S1	Rapid Set
<input type="checkbox"/>	<b>KERAQUICK MAXI S1 + LATEX PLUS</b>	C2 F S2	
<input type="checkbox"/>	<b>GRANIRAPID</b>	C2 F S1	

- **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.
- ◇ 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 sheet of mosaics tiles into position, pressing firmly to ensure good coverage and to create a flat surface.



## 1.10 GROUT

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- **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 / KERAPOXY DESIGN** -  **- 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 / KERAPOXY DESIGN:** 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.

## 1.11 SILICONE

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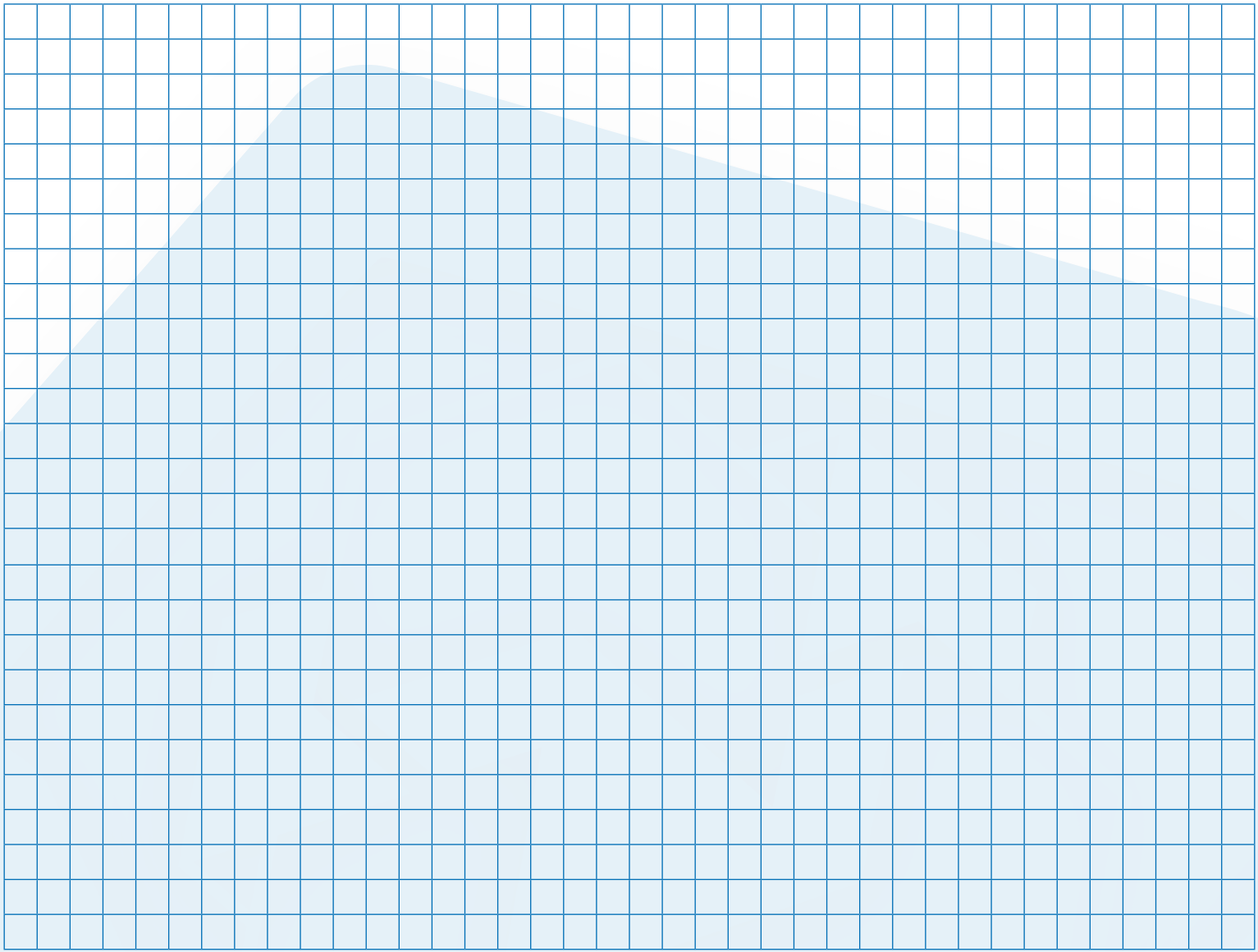
- A. MAPESIL AC** -   
Solvent-free, acetic crosslinking mildew resistant silicone for ceramics and porcelain.

- **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



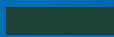
PRODUCTS FOR CEMENTITIOUS AND RESIN FLOOR COVERING



BUILDING SPECIALTY PRODUCTS



ADMIXTURES FOR CONCRETE



PRODUCTS FOR STRUCTURAL STRENGTHENING



PRODUCTS FOR MASONRY RESTORATION



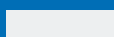
WALL PROTECTIVE AND DECORATIVE COATINGS



WATERPROOFING



PRODUCTS FOR UNDERGROUND CONSTRUCTIONS (UTT)



ELASTIC SEALANTS AND ADHESIVES



PRODUCTS FOR SPORTS FLOORING



CEMENT ADDITIVES (C-ADD)

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