WORK METHOD STATEMENT
Waterproofing System – Internal & External
Installation of Glass Mosaics in Swimming Pools

PART 1  PRODUCTS

1.1 SUBSTRATE PREPERATION

A. Concrete Substrate
   1. Substrate must be uniformly dry, solid, sound, and free of dust, loose particles, cracks, paint, wax, oil, rust, traces of gypsum and other products that can interfere with bonding. Substrate must be prepared in accordance with the relevant Australian Standards and Mapei Technical Data Sheets (TDS).

B. References
   2. AS 3958.2 (1992) – Ceramic Tiles; Part 2: Guide to Selection of Ceramic Tiling System
   3. MAPEI Technical Notebook – Waterproofing baths and swimming pools

1.2 SCREED – FLOORS, WHERE REQUIRED

A. MAPECEM PRONTO (210-10-2015)
   1. Pre-blended, ready to use, quick setting and drying (24 hours), controlled shrinkage mortar for screeds.
      • APPLICATION:
        ◊ Ensure the screed is applied over a wet slurry coat of PLANICRETE SP (700-11-2008) and MAPECEM (201-5-2005). Refer to the TDS for mixing details.
        ◊ Screed to be minimum 10mm thick and in accordance with AS3958.1 (2007).

1.3 SMOOTHING COMPOUND – WALLS, WHERE REQUIRED

Smoothing compound to be chosen from the following options:

A. PLANITOP FAST 330 (2608-9-2013)
   1. Quick setting, fibre reinforced cementitious mortar for internal and external floors and walls, applied at a thickness from 3 to 30mm to smooth out irregularities.
      • APPLICATION:
        ◊ Apply a feather edge layer to the substrate and then immediately apply a layer at the thickness required.

B. PLANITOP SMOOTH & REPAIR R4 (1136-9-2014)
   1. Structural R4-class, rapid setting, shrinkage compensated, thixotropic, fibre reinforced, cementitious mortar, applied in a single layer from 3 to 40mm 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.
1.4 COVE FILLET

_Cove fillet material to be chosen from the following options:_

A. **MAPEGROUT FAST-SET** (307-10-2013)
   1. Fast setting and drying, shrinkage compensated, fibre reinforced mortar for concrete repair with a two component, solvent free epoxy adhesive for construction joints and for monolithic sealing of cracks in screeds.

B. **MAPEGROUT T40** (308-7-2013)
   1. Medium strength (40MPa) shrinkage compensated, fibre reinforced, thixotropic mortar for repairing concrete.

1.5 WATERPROOFING MEMBRANE

A. **MAPELASTIC SMART** (2013-4-2015)
   1. Two component, high flexibility cementitious mortar (with crack-bridging capacity > 2mm) applied by trowel or roller for waterproofing balconies, terraces, bathrooms and swimming pools.

   **APPLICATION:**
   ◊ Waterproofing membrane must be applied in at least two coats, encapsulating the polypropylene fabric between coats, by trowel or with a roller within 60 minutes of it being mixed, to give a final thickness (DFT) of at least 2mm.

1.6 POLYPROPYLENE FABRIC - WHERE REQUIRED

A. **MAPETEX SEL** (911-5-2008)

   **APPLICATION:**
   ◊ Apply the polypropylene fabric between the layers of the waterproofing membrane in strict accordance with the TDS.

1.7 ADHESIVE

_Adhesive to be chosen from the following options:_

A. **KERAFLEX MAXI S1** (74-2-2014) - **GOOD SOLUTION**
   1. High performance, deformable cementitious adhesive with an extended open time and no vertical slip, for ceramic tiles. Especially suitable for the installation of large porcelain tiles and natural stone (non-moisture sensitive).

B. **KERABOND PLUS / ISOLASTIC 50** (87-2-2005 / 116-6-2013) - **BETTER SOLUTION**
   1. Cement based powder with superior bond strength suitable for all types of tiles and natural stones with a latex additive to elasticize the adhesive.

C. **KERAPOXY** (141-4-2015) **OR KERAPOXY DESIGN** (149-9-2014) - **BEST SOLUTION**
   1. Two component, acid resistant epoxy grout for joints of at least 3mm, OR Two component, decorative, acid resistant epoxy grout, ideal for glass mosaics.

   **NOTE:** To ensure a good adhesion, apply a thin coat of the adhesive with the straight edge of the trowel over the existing waterproofing membrane. Immediately follow this with a layer of adhesive, using a notched trowel, at the correct thickness.

   **NOTE:** It is advised to periodically remove a tile whilst the adhesive is still fresh to assess the coverage being achieved. If it is acceptable then continue as is. If it is not acceptable, reassess the trowel used and the application technique.
1.8 GROUT

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

A. **KERACOLOR Range** - GOOD SOLUTION

B. **ULTRACOLOR PLUS (2801-7-2014)** - BETTER SOLUTION
   1. High-performance, anti-efflorescence, quick-setting and drying polymer-modified mortar with water-repellent technology

C. **KERAPOXY (141-4-2015) OR KERAPOXY DESIGN (149-9-2014)** - BEST SOLUTION
   1. Two component, acid resistant epoxy grout for joints of at least 3mm, OR Two component, decorative, acid resistant epoxy grout, ideal for glass mosaics.
   - **NOTE:** Prior to the application of the grout:
     - Ensure the joints are clean, free of dust and empty down to at least 2/3 of the thickness of the tiles,
     - It is suggested to carry out a 1m² sample area for approval by the architect

1.9 EXPANSION JOINTS

- **NOTE:** Prior to the application of the silicone, it is recommended that the silicone is applied in a test area to be approved by the client.

A. **MAPESIL AC (401-9-2000)**
   1. Solvent-free, acetic crosslinking mildew resistant silicone sealant.

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. Mapei provides technical data sheets (TDS) for all products which should be read in conjunction with this WMS. The TDS can be obtained from www.mapei.com.au. Each project differs in exposure/condition, therefore specific recommendations may vary from the information contained above. For recommendations for specific applications/installations please contact MAPEI Australia Pty. Ltd.