

PART 1 SYSTEM

1.1 REFERENCES

A. *Australian Standard(s):*

1. AS 4654.2-2012 – Waterproofing membranes for external above-ground use – Part 2: Design and installation

1.2 CONCRETE OR BLOCKWORK 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).

1.3 SMOOTHING MORTAR – WHERE REQUIRED

- **WHERE TO USE:** To repair, to fill mortar joints, and to smooth over any rough areas to create a sufficiently even substrate.

Smoothing mortar to be chosen from the following options:

A. **PLANITOP FAST 330 (2608-3-2017 GB)**

– **GOOD SOLUTION**

1. 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 (1136-9-2014)**

– **BEST SOLUTION**

1. 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:**

- ◇ Saturate the substrate with water, then wait until any excess water has evaporated.
- ◇ Apply the mortar with a smooth trowel in a single layer in accordance with the relevant thickness limits of the chosen product.



1.4 JUNCTION DETAIL

Junction detail to be chosen from the following options:

Cementitious Cove – If no screed to be used

A. MAPEGROUT T40 (308-10-2017 AUS) – Normal Set

1. Medium strength (40 MPa), shrinkage compensated, fibre reinforced, thixotropic mortar for repairing concrete.

B. MAPEGROUT FAST-SET (307-10-2013) – Rapid Set

1. Fast setting and drying, shrinkage compensated, fibre reinforced mortar for concrete repair.

• **APPLICATION:**

- ◇ Wet the substrate with water and wait for excess water to evaporate prior to the application of the repair mortar.
- ◇ Apply the mortar at a radius of 30 to 40 mm with a float or trowel at all wall/wall, wall/floor junctions, and any other point of expected movement.

Flexible Fillet – If screed to be used

C. MAPEFLEX PU 45 FT (8102-10-2016 GB)

1. One component, rapid hardening, paintable, thixotropic polyurethane sealant and adhesive with a high modulus of elasticity.

- **NOTE:** Flexible sealant to be used at all junctions (wall-to-wall, wall-to-floor) and other locations that may be subjected to movement with a gap no larger than 10 mm.

1.5 WATERPROOFING MEMBRANE

A. MAPELASTIC SMART (2013-03-2018 AUS)

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

• **APPLICATION:**

- ◇ Waterproofing membrane must be applied in at least two coats by trowel or with a roller within 60 minutes of it being mixed, to give a final thickness (DFT) of at least 2 mm.
- ◇ Ensure substrate has adequate falls in accordance with Clause 2.5.2 of AS4654.2, if not, apply a screed after the primary membrane to create falls.
- ◇ If a flexible fillet was used with **MAPEFLEX PU 45 FT**, ensure **MAPETEX SEL** is applied at all wall/wall, wall/floor junctions, and any other point of expected movement in accordance with the TDS.
- ◇ Floor waterproofing membrane to be returned up wall substrates over the cove or flexible fillet in accordance with AS4654.2 and the TDS, and returned down into wastes.
- ◇ Wall waterproofing membrane to be returned down across the floor substrate over the cured cove or flexible fillet. Wall membrane shall extend vertically to a minimum height of 100 mm above the soil or fill level.
- ◇ If no screed is to be used, ensure waterproofing membrane is covered and adequately protected from point loads, abrasion, root damage, and any other potential cause of damage.



1.6 SCREED – IF REQUIRED

A. TOPCEM PRONTO (209-7-2017 AUS)

1. Ready-to-use normal setting, controlled-shrinkage mortar for quick-drying screeds (4 days).
 - **NOTE:** Prior to the application of the screed:
 - ◇ Ensure a slurry coat of **PLANICRETE SP** (700-6-2016) mixed with **TOPCEM** (207-02-2017 AUS) has been applied. Refer to the TDS for mixing details,
 - ◇ Ensure screed is applied over the slurry coat whilst the slurry coat is still wet.
 - **APPLICATION:**
 - ◇ Screed to be in accordance with AS 3958.1-2007.
 - ◇ Mix water and **TOPCEM PRONTO** in strict accordance with the ratios described in the TDS.
 - ◇ Ensure a minimum thickness of 10 mm is applied.
 - ◇ Ensure screed has adequate falls in accordance with Clause 2.5.2 of AS4654.2.

1.7 WATERPROOFING MEMBRANE – IF SCREED WAS USED

A. MAPELASTIC SMART (2013-8-2017 GB)

1. Two component, high flexibility cementitious mortar (with crack-bridging capacity >2 mm) applied by trowel or roller for waterproofing balconies, terraces, bathrooms and swimming pools.
 - **NOTE:** Prior to the application of the waterproofing membrane:
 - ◇ Ensure a flexible fillet has been applied with **MAPEFLEX PU 45 FT** (8102-10-2016 GB), at wall/wall, wall/floor junctions and all other areas where movement is expected,
 - ◇ Ensure flexible fillet is adequately cured.
 - **APPLICATION:**
 - ◇ Waterproofing membrane must be applied in at least two coats by trowel or with a roller within 60 minutes of it being mixed, to give a final thickness (DFT) of at least 2 mm.
 - ◇ Apply a reinforcement fabric with **MAPETEX SEL** (911-12-2016 GB), at all wall/wall, wall/floor junctions and all other areas where movement is expected,
 - ◇ Floor waterproofing membrane to be returned up wall substrates over the flexible fillet in accordance with AS4654.2 and the TDS, and returned down into wastes.
 - ◇ Ensure waterproofing membrane is covered and adequately protected from point loads, abrasion, root damage, and any other potential cause of damage.

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 or by clicking directly on the listed products within the PDF.

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.

