SYSTEM FOR THE **INSTALLATION OF TILES OVER UNEVEN CONCRETE**

this system makes it possible to obtain ***GREEN STAR™*** *credits*

GREEN INNOVATION

MAPEI

C01

concrete substrate	*primer* **Eco Prim T Plus**	*levelling compound* **UC Leveller**	*adhesive* **Ultralite S1**	*grout* **Ultracolor Plus**	*sealant* **Mapesil AC**
1	2	3	4	5	6

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

08/17 REV 1

PART 1 SYSTEM

1.1 REFERENCES

1. AS 3958.1 (2007) – Ceramic Tiles; Part 1: Guide to the Installation of Ceramic Tiles
2. AS 3958.2 (1992) – Ceramic Tiles; Part 2: Guide to the Selection of a Ceramic Tiling System

1.2 CONCRETE SUBSTRATE PREPERATION

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 LEVELLLING MATERIAL

Levelling material to be chosen from the following options:

A. ADESILEX P4 (107-7-2017 AUS) – Smoothing mortar

1. High performance, rapid-setting, full contact, cementitious adhesive for ceramic tile and stone material installations; smoothing compound for interiors and exteriors; mortar for brick and concrete block walls.

- **APPLICATION:**
  - ◊ Apply using an appropriate trowel, as specified on the TDS.

B. TOPCEM PRONTO (209-7-2017 AUS) – Engineered screed

1. Ready-to-use normal setting, controlled-shrinkage mortar for quick-drying screeds. Can receive tiling in 24 hours as opposed to roughly 3 weeks for a normal sand/cement screed according to AS3958.1.

- **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 AS3958.1 (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.

C. UC LEVELLER (518-01-2017 AUS) – Levelling compound (Internal only)

1. Fast hardening levelling smoothing compound for thicknesses from 3 mm to 70 mm: especially recommended for pumping.

- **NOTE:** Prior to the application of the levelling compound:
  - ◊ Apply primer **ECO PRIM T PLUS (2930-1-2014)** with a brush or roller diluted in accordance with the TDS.
- **APPLICATION:**
  - ◊ Spread the levelling compound in thicknesses from 3 to 70 mm per application, using a large metal trowel or float, tilting the trowel slightly to obtain the desired thickness.

1.4 ADHESIVE

- **NOTE:** Natural stone can be subjected to warping and staining, therefore Mapei recommends when using natural stone to refer to the manufactures guidelines. Adhesive selection for natural stone is also dependant on its moisture sensitiveness, which is represented by a class system. Please refer to EN14617 and the Mapei technical notebook – Laying Stone Materials for more information.

Adhesive to be chosen from the following options:

Normal-Set

A. **ULTRALITE S1 (71-07-2016 AUS)** ***– GOOD Solution***

1. One-component, high-performance, flexible, lightweight, cementitious adhesive with no vertical slip and long open time and extremely high yield. Easy to apply by trowel with excellent wetting properties, very low emission of volatile organic compounds for ceramic tiles, stone (Class A) and thin porcelain tiles.

- **NOTE:** Option B required when applying externally with >5000 cm^2 (700x700 mm) tiles.

B. **KERABOND PLUS / ISOLASTIC (87-02-2017, 112-9-2016)** ***– BEST Solution***

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

Rapid-Set

C. **KERAQUICK S1 (103-06-2016 AUS)** ***– GOOD Solution***

1. High performance, deformable, fast setting cementitious adhesive with no vertical slip, for ceramic tiles and stone material (Class A/B*).

- **NOTE:** Option D required when applying externally with >5000 cm^2 (700x700 mm) tiles.

D. **KERAQUICK S1 + LATEX PLUS (103-06-2016, 114-3-2014)** ***– BEST Solution***

1. High performance, deformable, fast setting cementitious adhesive with no vertical slip, for ceramic tiles and stone material (Class A/B*) with a latex additive to elasticize the adhesive.

Resin-Based

E. **KERALASTIC T (122-1-2014)**

1. Two component, high performance polyurethane adhesive for ceramic tiles and stone material (Class A/B*/C**).

- **APPLICATION:**
  - ◊ 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.
  - ◊ Adhesive should also be applied to the back of the tile/stone (*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 with a slight twisting motion, merging the adhesives together wet-on-wet, to ensure good contact coverage is achieved.
  - ◊ It is recommended that once the first tile/stone is laid, it should then be removed to assess the coverage. If it is acceptable, then continue, if it is not acceptable, reassess the trowel used and the application technique.

1.5 GROUT

- **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 then suggested to carry out a 1 m^2 sample area for approval by the architect.

Grout to be chosen from the following options:

A. **KERACOLOR RANGE** **- GOOD SOLUTION**

1. High performance, polymer-modified, cement-base grouts.

B. **ULTRACOLOR PLUS (2801-9-2016 GB)** **- BETTER SOLUTION**

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

C. **KERAPOXY (141-11-2016)** **- BEST SOLUTION**

1. Two component, acid resistant epoxy grout for joints of at least 3 mm.

- **APPLICATION:**
  - ◊ Fill the joints completely with the grout using the appropriate 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.

1.6 SILICONE

- **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 and to ensure it doesn't stain the stone/tile.

Silicone to be chosen from the following options:

A. **MAPESIL AC (401-4-2017 GB) – Ceramic/Porcelain**

1. Solvent-free, acetic crosslinking mildew resistant silicone sealant.

B. **MAPESIL LM (408-1-2015 GB) – Stone**

1. Neutral mould resistant silicone sealant for stone and marble.

MAPEI provides technical data sheets (TDS) for all products which should be read in conjunction with this Work Method Statement. The TDS' can be obtained from www.mapei.com.au, or by clicking directly on the listed products within the PDF.