



Model Specification for Installation of Tekcem 212+ Leveller onto Tiled Substrate Using Tekcem TekGrip (Bonded System)

1. Substrate Requirements

Substrate Type:

Existing ceramic, porcelain, quarry, or natural stone tile substrates suitable for bonded self-levelling applications.

Condition:

- Tiles must be rigidly bonded, stable, and free from movement.
 - The substrate must be clean, dry, and sound with no hollow or loose tiles.
 - Surfaces must be free from polish, sealers, wax, or other contaminants that could inhibit adhesion.
 - Cracked, damaged, or debonded tiles must be repaired or replaced prior to levelling.
 - Ensure all joints are filled and the surface is even before application.
 - Underfloor heating systems must be fully commissioned and switched off at least 24 hours before application.
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2. Mechanical Surface Preparation

Method:

Mechanically abrade the tile surface using diamond grinding or similar to remove any surface glaze and improve key.

Cleaning:

Vacuum thoroughly to remove dust and residue. Clean with a suitable alkaline degreaser to eliminate residual wax or grease. Rinse and allow to dry completely.

Moisture Testing:

Confirm substrate is dry and free from moisture entrapment. Surface relative humidity (RH) should be $\leq 75\%$.

3. Primer Application (Tekcem TekGrip)

Primer:

Tekcem TekGrip – fast-drying, ready-to-use bonding primer with fine aggregate for enhanced adhesion to non-porous substrates such as tiles.

Application Guidance:

- Shake the container thoroughly before use to evenly distribute the aggregate.



- Apply **one uniform coat** of Tekcem TekGrip using a short-pile roller or brush.
- Work the primer well into the tile joints and textured surfaces.
- Avoid pooling and over-application.
- Allow to **dry fully (typically 20–30 minutes at 20 °C)** until touch-dry and a light green textured finish is visible before applying Tekcem 212+.
- Do not dilute.

Coverage:

Approx. 0.075 – 0.11 kg/m² (equivalent to 9–13 m² per litre, depending on surface texture).

Conditions:

Apply between +5 °C and +30 °C. Ensure ambient RH < 75 % and avoid direct sunlight or draughts during drying.

4. Tekcem 212+ Leveller Specification

Product:

Tekcem 212+ Leveller – fast-setting, cement-based, protein-free, shrinkage-compensated self-levelling compound.

Water Addition:

5.8 – 6.0 litres per 25 kg unit.

Do not exceed 6 litres to prevent loss of strength or delayed drying.

Properties:

- Working time: 20–30 minutes @ 20 °C
- Light foot traffic: ~2 hours @ 20 °C
- Tile installation: after 3 hours @ 3 mm
- Resilient finishes: after 4 hours @ 3 mm
- Compressive strength (28 days): >22 N/mm²
- Flexural strength (28 days): >5 N/mm²

Thickness Guidelines (Bonded Systems):

Minimum 2 mm, maximum 12 mm in a single application.

For thicker applications, apply in multiple layers, re-priming with Tekcem TekGrip between coats.

5. Screed Application

Mixing:

Add powder gradually to clean water while mixing with a slow-speed drill and paddle or a suitable pump.

Mix until uniform and lump-free.



Allow to stand for 2 minutes, re-mix, and apply immediately.
Use each batch within 30 minutes of mixing.

Placement:

Pour or pump the material onto the primed tiled surface.
Spread using a steel trowel and finish with a spiked roller to release trapped air.

Environmental Conditions:

Substrate temperature 5–30 °C; ambient RH < 75 %.

6. Post-Installation

Drying & Overlay:

- Light foot traffic: after ~2 hours @ 20 °C
- Tiled finishes: after 3 hours @ 3 mm
- Resilient finishes: after 4 hours @ 3 mm
- Ensure residual moisture content is within limits before installing final coverings.

Drying Guidance:

At 3 mm thickness, typical drying time is 3–4 hours under good site ventilation.
Cooler or more humid conditions will extend drying.

Curing:

No curing membrane is required; avoid rapid drying from direct sunlight or strong airflow.

Access:

Light traffic after 2–3 hours; full traffic after 24 hours.

7. Limitations

- Do not apply below 5 °C or above 30 °C.
- Not suitable for permanently wet or immersed areas.
- Ensure all tiles are firmly bonded and deglazed prior to priming.
- Only use Tekcem TekGrip as the primer for tiled substrates.
- Do not apply over soft, unstable, or contaminated finishes.



8. Disclaimer

The information provided in this specification is based on Tekcem's experience and current knowledge and is given in good faith to assist in specifying the installation of Tekcem products. It does not replace the need for appropriate design, professional judgement, and proper site evaluation. Tekcem Ltd accepts no liability for the improper use of its products or deviation from the recommended guidelines.

Site conditions, working methods, substrate types, and application techniques can all vary significantly and are beyond Tekcem's control. Therefore, it is the responsibility of the contractor and/or installer to ensure that the products are suitable for the specific conditions of each individual project.

This specification does not relieve the user of the responsibility to carry out appropriate checks, tests, and quality assurance procedures prior to and during application.

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