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

1. Substrate Requirements

Substrate Type:
Concrete slab or sand/cement screed suitable for bonded self-levelling systems.

Minimum Compressive Strength:
25 MPa.

Condition:
- Structurally sound, stable, and free from movement.
- All cracks and surface defects repaired to provide a flush, continuous surface.
- Free from laitance, dust, oil, grease, curing agents, and contaminants.
- Dry, with surface relative humidity ≤ 75 % (BS 8203).
- Flat and true; deviations corrected before application.

2. Mechanical Surface Preparation

Method:
Mechanically abrade using vacuum-assisted shot-blasting, grinding, or equivalent to expose a clean textured surface.

Cleaning:
Remove all dust and debris using an industrial vacuum.

Moisture Testing:
Confirm surface RH ≤ 75 %. If higher, apply a moisture-tolerant surface DPM before priming.

3. Primer Application

Primer:
Tekcem Tekprime.

Dilution Ratio:
3 parts clean water : 1 part Tekprime (3:1).

Application:
Apply evenly using a roller or soft broom, ensuring full coverage. Allow to fully dry and film-

form (typically 1–2 hours depending on conditions).
Highly porous substrates may require a second coat of Tekprime at the same dilution.

Coverage:
Approx. 170 m² per 5 litres at 3:1 dilution (per coat, subject to substrate porosity).

Conditions:
Do not apply primer if substrate or ambient temperature is below 5 °C or above 30 °C.
Maintain RH below 75 % during curing.

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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; excess water weakens the mix and extends 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 greater thicknesses, apply in multiple layers, priming between coats.

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5. Screed Application

Mixing:
Add powder slowly to clean water while mixing with a slow-speed drill and paddle, or screed pump.
Mix until homogeneous and lump-free. Allow to stand 2 minutes, remix, and apply immediately.
Use each batch within 20–30 minutes of mixing.

Placement:
Pour or pump the material onto the primed substrate. Spread using a steel trowel to the required thickness and finish immediately with a spiked roller to release trapped air.

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

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6. Post-Installation

Drying & Overlay:
- Light foot traffic: ~2 hours @ 20 °C
- Tiled floor finishes: after 3 hours @ 3 mm
- Resilient floor finishes: after 4 hours @ 3 mm
- Other finishes: ensure residual moisture content is suitable for the floor finish system.

Drying Guidance:
At 3 mm, typically dry within 3–4 hours under good ventilation.
Low temperature and high humidity will delay drying.
Always test RH before applying sensitive finishes.

Curing:
No curing membrane required. Avoid rapid drying (direct heat, strong draughts, or sunlight).

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

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7. Limitations

- Do not apply below 5 °C or above 30 °C.
- Not suitable for permanent water immersion.
- Ensure substrate moisture ≤ 75 % RH before installation.
- Always follow Tekcem's priming and substrate guidance for optimum bond strength.

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.