



Model Specification for Installation of Tekcem 025 Industrial Screed onto Concrete Substrate Using Two Coats of Tekprime and Finished with Tekcem Gloss Seal (Bonded System)

1. Substrate Requirements

Substrate Type:

Concrete slab suitable for bonded screed systems.

Minimum Compressive Strength:

25 MPa.

Condition:

- Structurally sound, solid, and continuous.
 - All cracks and surface defects repaired to provide a flush, stable finish.
 - Free from laitance, dust, oil, grease, curing agents, and contaminants.
 - Surface RH $\leq$ 75% as per BS 8203.
 - Flat and level; deviations corrected before screed installation.
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2. Mechanical Surface Preparation

Method:

Prepare by vacuum-assisted shot blasting, grinding, or equivalent mechanical means to expose a clean, textured surface.

Cleaning:

Vacuum thoroughly to remove dust and loose material.

Moisture Testing:

Confirm surface RH is $\leq$ 75%. If above this, install a suitable moisture-tolerant DPM.

3. Primer Application (Tekprime – Two Coats)

Product:

Tekcem Tekprime.

Dilution Ratio:

3 parts water to 1 part Tekprime.

**Application:**

- Apply first coat evenly using a roller or squeegee. Allow 1–2 hours to dry fully.
- Apply a second identical coat. Allow to dry before screed installation.
- Avoid pooling and ensure uniform application.

Coverage:

Approx. 170 m² per 5 litres per coat (depending on substrate porosity).

Conditions:

Apply only when ambient and substrate temperature is between 5°C and 30°C, and RH is below 75%.

4. Tekcem 025 Industrial Screed Specification**Product:**

Tekcem 025 Industrial – fast-setting, shrinkage-compensated, high-strength floor topping.

Water Addition:

5.5 litres per 25kg bag (max. 6 litres). Do not exceed water limit.

Properties:

- Working time: 20–30 minutes at 20°C
- Light foot traffic: 3 hours
- Light forklift traffic: 24 hours
- Full traffic: 7 days
- Compressive strength:
 - 15 MPa (1 day)
 - 25 MPa (7 days)
 - 30 MPa (28 days)
- Flexural strength:
 - 4 MPa (1 day)
 - 6 MPa (7 days)
 - 7 MPa (28 days)

Thickness Range (Bonded):

3 mm to 25 mm per layer.

5. Screed Application**Mixing:**

Add powder slowly to water while mixing with a slow-speed drill or screed pump. Mix until smooth and uniform. Let stand for 2 minutes, remix, and use within 30 minutes.

**Placement:**

Pour or pump directly onto primed surface. Trowel to desired level and finish with a spiked roller to eliminate air.

Layering:

For thicknesses >25 mm, apply in layers, allowing each to cure before applying the next.

Environmental Conditions:

Substrate temperature: 5–30°C. Ambient RH <75%.

6. Sealer Application – Tekcem Gloss Seal**Surface Preparation:**

Ensure screed is fully dry before sealing. Residual moisture may cause staining or loss of adhesion.

Mixing:

Pour full contents of resin into curing agent and mix thoroughly for at least 2 minutes using a slow-speed drill.

Application:

- Apply by roller, squeegee or brush at 4–5 m²/kg.
- Ensure even, continuous coverage.
- After minimum 16 hours (maximum 48 hours), apply second coat if required.
- Avoid pooling and ensure good ventilation throughout application and curing.

Curing:

- Dry to touch: 16 hours at 20°C
- Full cure: 7 days
- Protect from water spills for at least 24 hours post-application

Properties:

- Clear, gloss finish
- Excellent abrasion and chemical resistance
- Low odour, solvent-free
- Hygienic and easy to clean
- UV stable



7. Post-Installation Guidance

Drying Time Guidance:

For screed thicknesses over 10 mm, allow at least **1 day per 10 mm** of depth in good conditions. Low temperatures or high humidity will extend drying times.

RH Testing:

Carry out RH testing in accordance with BS 8203 prior to installation of floor finishes.

Traffic & Use:

- Light foot traffic: after 3 hours
- Full site traffic: after 7 days
- Gloss Seal surface should not be subjected to heavy wear until fully cured (7 days)

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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