



# Model Specification for Installation of Tekcem Tekcreed Screed onto Concrete Substrate Using Tekcem SF Membrane (Wet-on-Wet Application)

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## 1. Substrate Requirements

### Substrate Type:

Concrete slab (suitable for bonded screed system).

### Condition:

- Structurally sound, clean, and dry.
  - Free from laitance, dust, oil, grease, curing agents, or any contaminants that could impair adhesion.
  - Minimum compressive strength: 25 MPa.
  - Flat and level; defects and undulations must be corrected prior to screed installation.
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## 2. Surface Preparation

### Mechanical Preparation:

Use vacuum-assisted shot blasting or mechanical grinding to remove surface contaminants and expose a clean, open-textured surface.

### Cleaning:

Vacuum all dust and loose debris. The surface must be dry and visibly clean.

### Moisture:

Confirm surface RH is  $\leq 75\%$ . If above, an appropriate moisture control system must be used prior to screed installation.

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## 3. Application of Tekcem SF Membrane (Bonding System)

### Mixing:

Mix SF Membrane base resin with curing agent for a minimum of 2 minutes until uniform.

### Application:

Apply evenly using a roller, squeegee, or brush. Coverage rate: approx. 3 m<sup>2</sup>/kg.



### **Wet-on-Wet Screeding:**

While the Tekcem SF Membrane is still wet (typically within 30 minutes of application), install Tekcem Tekcreed screed directly into the membrane. If any areas cure before screeding, reapply fresh membrane.

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## **4. Tekcem Tekcreed Screed Specification**

### **Mix Design (per m<sup>3</sup>):**

- 400 kg OPC (CEM I 42.5N)
- 1600 kg 0–4 mm screeding sand (BS EN 13139 fines category 1)
- Tekcem Tekcreed admixture: Dosage as per latest Tekcem Tekcreed technical data sheet
- Water: Adjust to achieve semi-dry consistency (typically 50–60 litres)
- Optional: 1 kg polypropylene fibres for added crack control

### **Consistency:**

Semi-dry; forms a ball when squeezed without bleeding free water.

### **Working Life:**

45–60 minutes from mixing.

### **Thickness (Bonded Systems):**

- **Standard bonded screed thickness:** 25 mm
- **Minimum 15 mm** only where epoxy bonding is used — see Tekcem SF Membrane data sheet for details
- **Maximum layer thickness:** 75 mm

Where greater build-up is required, screed in layers. Scratch-key between layers and place subsequent layers within 45 minutes to maintain bond.

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## **5. Screed Application**

### **Method:**

Place Tekcem Tekcreed directly into the wet Tekcem SF Membrane. Tamp, float, and trowel to finish and ensure full compaction and contact with the substrate.

### **Compaction:**

Essential to eliminate voids and promote durability and bonding. Ensure thorough consolidation throughout.



### Environmental Conditions:

- Substrate and ambient temperatures: 5°C–30°C
  - Relative humidity: <75%
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## 6. Post-Installation

### Protection:

Protect the screed from frost, direct sunlight, strong air movement, and moisture ingress for the first 24–72 hours.

### Access:

- Light foot traffic: 24 hours
- Full site traffic: ~7 days (depending on site and thickness)

### Floor Finishes:

Install only when residual moisture content is  $\leq 75\%$  RH or as per flooring manufacturer's recommendations.

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## 7. Limitations

- Screed must be placed wet-on-wet into Tekcem SF Membrane.
  - Substrate must be clean, rigid, and within temperature and humidity limits.
  - Do not apply if ambient/substrate temperature is below 5°C.
  - Do not exceed 75 mm per layer — build-up in multiple layers as needed.
  - For bonded screeds below 25 mm, epoxy bonding is essential (see SF Membrane data sheet).
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## 8. Disclaimer

This specification is based on Tekcem's expertise and current product knowledge. It is intended as a guide for best practice but does not replace appropriate professional advice, detailed design, or site-specific assessment. Tekcem Ltd accepts no liability for misuse or deviation from the guidance provided.

Installers must ensure that the specification is suitable for their particular application and that appropriate quality control and testing is conducted throughout the process.

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