



Model Specification for Installation of Tekcem RapidoWITT Screed Unbonded Over Concrete Using 2000-Gauge DPM or Gas Barrier (Including Perimeter Edge Strip and Taping)

1. Substrate Requirements

Substrate Type:

Concrete slab.

Condition:

- Concrete must be sound, clean, and free of laitance, dust, oil, grease, curing agents, or contaminants.
 - Must be level enough to ensure a uniform screed thickness without abrupt undulations.
 - Where active moisture or ground gas is present, the separating membrane must comply with project-specific performance criteria (e.g. methane or radon protection).
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2. Installation of Separating Membrane (2000-Gauge DPM or Gas Barrier)

Membrane Type:

2000-gauge polyethylene DPM or certified gas barrier system as required by the project specification.

Installation Method:

- Lay membrane loosely over prepared concrete.
- Overlap joints by ≥ 150 mm.
- Apply double-sided tape beneath overlaps to bond adjacent sheets.
- Seal with single-sided tape over joints for a continuous airtight seal.
- Turn membrane up walls, columns, and service penetrations to above finished screed level.
- Remove wrinkles and ensure good contact with the substrate to prevent trapped air.

Manufacturer's Guidance:

Installation must follow the membrane manufacturer's recommendations, including detailing, taping, and performance-specific requirements (e.g. gas resistance, VOC migration).



3. Installation of Perimeter Edge Strip

Material:

Closed-cell polyethylene foam or other approved isolation strip.

Dimensions:

- Thickness: 5–10 mm
- Height: Equal to or greater than finished screed thickness (minimum 35 mm or 40 mm for heavy-duty use)

Placement:

- Install continuously around all vertical elements: perimeter walls, columns, door frames, etc.
 - Ensure full continuity to accommodate expansion and contraction.
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4. Tekcem RapidoWITT Screed Specification

Mix Design (per m³):

- 265 kg Tekcem RapidoWITT
- 1850 kg 0–4 mm screeding sand (BS EN 13139)
- 900 g PP fibres
- Approx. 85 litres clean water (adjust to sand moisture content)

Consistency:

- Semi-dry – forms a ball when squeezed without water bleed.

Working Life:

- Approximately 45–60 minutes after mixing.
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5. Screed Application

Placement:

- Spread Tekcem RapidoWITT screed directly over the 2000-gauge DPM or gas membrane.
- Compact using tamping bars to eliminate voids.
- Finish with a plastic float or light steel trowel.

**Thickness:**

- Minimum 35 mm for standard traffic conditions
- Minimum 40 mm for heavy-duty applications

Compaction:

- Ensure consistent compaction throughout screed depth to maximise performance.

Environmental Conditions:

- Apply only when ambient and substrate temperatures are between 5°C and 30°C.
 - Relative humidity should be below 75% during installation.
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6. Post-Installation**Protection:**

- Protect screed from frost, draughts, direct sunlight, and rapid drying for at least the first 24 hours.
- Temporary coverings may be used where needed.

Access:

- Light foot traffic: 12–24 hours
- Full site access: 72 hours (depending on screed thickness and site conditions)

Floor Finishes:

- Screed must be fully cured and ≤ 2 CM% or $\leq 75\%$ RH before floor coverings are installed.

Underfloor Heating (if present):

- Only commission UFH once the screed is fully cured and dried.
- Use a gradual heat-up cycle per Tekcem guidance.

7. Limitations

- The DPM or gas membrane must be installed in accordance with the manufacturer's guidance for joints, detailing, and service penetrations.
- All laps must be bonded (double-sided tape) and sealed (single-sided tape).
- Screed must remain fully unbonded from the substrate.
- Movement joints in the substrate should be mirrored in the screed layer.
- Always isolate screed from fixed vertical structures using perimeter edge insulation.



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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