



Model Specification for Installation of Tekcem RapidoWITT Screed Unbonded Over Concrete Using 500-Gauge Separating Membrane (Including Perimeter Edge Strip)

1. Substrate Requirements

Substrate Type:

Concrete slab.

Condition:

- Must be structurally sound, clean, and free from dust, laitance, oil, grease, curing compounds, and contaminants.
 - Substrate must be level to provide a uniform screed thickness with no high spots or hollows.
 - If rising moisture is a risk, an appropriate DPM must be installed beneath the separating membrane.
-

2. Installation of Separating Membrane

Membrane Type:

500-gauge polyethylene sheeting or equivalent.

Installation:

- Lay the membrane loosely over the concrete surface.
 - Overlap joints by at least 100 mm and tape with single-sided tape to secure.
 - Turn up the membrane at walls, columns, and any penetrations to above the final screed thickness.
 - Ensure the membrane is laid flat and tight to prevent voids beneath the screed.
-

3. Installation of Perimeter Edge Strip

Material:

Closed-cell polyethylene foam or similar approved material.

Dimensions:

- Thickness: typically 5–10 mm.
- Height: equal to or greater than the screed thickness (minimum 35 mm, 40 mm for heavy-duty use).

**Placement:**

- Install continuously around all walls, columns, door frames, and vertical elements before screeding.
 - Ensure no gaps in the edge strip to allow for screed movement and to avoid cracking at interfaces.
-

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 for sand moisture content)

Consistency:

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

Working Life:

- 45–60 minutes after mixing, depending on conditions

5. Screed Application**Placement:**

- Place screed directly onto the separating membrane.
- Compact thoroughly by tamping and finish with a plastic float or light steel trowel.

Thickness:

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

Compaction:

- Ensure full consolidation throughout to eliminate voids and deliver optimal strength and durability.

Environmental Conditions:



- Apply when substrate and ambient temperatures are between 5°C and 30°C.
 - Relative humidity should be below 75% RH.
-

6. Post-Installation

Protection:

- Protect from frost, direct sunlight, draughts, and rapid drying for at least 24 hours.
- Use polythene or appropriate coverings as needed.

Access:

- Light foot traffic after 12–24 hours
- Full site traffic after 72 hours, subject to screed depth and ambient conditions

Floor Finishes:

- Do not install floor coverings until moisture readings confirm $\leq 75\%$ RH or ≤ 2 CM%, in accordance with floor finish manufacturer guidelines.
-

7. Limitations

- Always isolate screed from vertical structures using perimeter edge strip.
 - Apply screed only over a properly installed separating membrane.
 - Maintain minimum screed thickness throughout: 35 mm (standard), 40 mm (heavy-duty).
 - Do not apply below 5°C ambient or substrate temperature.
 - Reflect any structural movement joints in the concrete slab through the screed if necessary.
-

8. Disclaimer

The information provided in this specification is based on Tekcem's current knowledge and field experience. It is intended to assist in specifying Tekcem products but does not replace appropriate professional judgement or site-specific design. Tekcem Ltd is not responsible for misuse or deviations from recommended practices.

Installers are responsible for confirming suitability and ensuring quality control measures are in place throughout the project.

Tekcem Rapidowitt_unbonded_500 gauge_concrete_no UFH_May2025_R1