



PU Cement Screed Flooring

SYSTEM FAMILY

Resin flooring / application methodology

TYPE

PU-modified cementitious screed

NOMINAL BUILD

2–6 mm, trowel-applied

1. SCOPE & SYSTEM DESCRIPTION

This Application Data Sheet describes POLYZEN's method for installing a **polyurethane cement (PU-modified cementitious) screed** at 2–6 mm — a heavy-duty, thermal-shock and steam-clean resistant floor for the harshest wet-process food, beverage and pharmaceutical environments.

It is a **brand-flexible application guide** applicable with a POLYZEN system product or a client-approved equivalent of the same type. PU cement can be laid on relatively young or damp concrete.

2. SUBSTRATE REQUIREMENTS

- Concrete typically ≥ 7 days old and gaining strength; PU cement tolerates higher substrate moisture than conventional resins (assess per project).
- Sound, structurally stable substrate; surface tensile ≥ 1.5 N/mm² (indicative).
- Anchor/keying cuts formed at perimeters, drains and terminations as detailed.

3. SURFACE PREPARATION

- Mechanically prepare by shot-blasting / grinding to a strong, open profile (typical CSP 3–5).
- Form termination and anchor grooves at edges, doorways and drains.
- Remove laitance and contamination; dampen or prime per the selected system's instructions.

4. ENVIRONMENTAL CONDITIONS

- Substrate & ambient 10–30 °C (indicative); protect fresh screed from rapid drying and water contact.
- Do not apply below the selected system's minimum temperature.

5. MATERIALS

Materials: POLYZEN PU cement screed system (**ZENPU Cretescreed ZP-300**) — primer, body and any seal/top coat from one compatible system — **or a client-approved equivalent** of the specified type meeting the project specification and standards. Exact mix ratios, consumption, film thickness and cure times are per the **selected material's Technical Data Sheet**.

6. MIXING

- Add the pre-weighed liquid components together, then blend in the cementitious aggregate using a forced-action / pan mixer to a uniform, lump-free mortar.
- Mix full units only; place within the working time (typically ~15–25 min at 25 °C, indicative).

7. APPLICATION PROCEDURE

- **Prime / scratch coat:** apply where required by moisture and profile.
- **Screed:** trowel-apply the PU cement to 2–6 mm; consolidate and finish to level and falls.
- **Coving:** form integral coving to walls and plinths for hygienic detailing.
- **Texture / seal (optional):** broadcast anti-slip aggregate and/or apply seal to set cleanability and slip.

8. COVERAGE, COATS & THICKNESS

- System-based per thickness (typically ~2.0-2.2 kg/m² per mm, indicative). Per the selected material's data sheet.

9. CURING & RETURN TO SERVICE

- Light foot traffic typically ~12-24 h at 25 °C (indicative).
- Return to service typically ~24-48 h (indicative).
- Full cure typically ~5-7 days (indicative); withstands steam-cleaning and thermal cycling once cured — per the selected material's data sheet.

10. FINISHING & DETAILING

- Integral coving, falls and drainage detailing.
- Anti-slip texture options; slip evaluated per ANSI A326.3 / ASTM E303 for the chosen finish.

11. QUALITY-CONTROL CHECKPOINTS

- Verify substrate profile, moisture tolerance and anchor grooves.
- Check screed thickness, falls and coving.
- Confirm texture / slip level and record ambient conditions.
- Spot-check bond and finish.

12. DO'S & DON'TS

Do

- Form anchor grooves at all terminations.
- Place within working time; finish promptly.
- Cove to walls for hygiene areas.
- Follow the selected material's data sheet.

Don't

- Don't over-water or retemper the mortar.
- Don't feather to zero without a groove.
- Don't apply below minimum temperature.
- Don't mix products from different systems.

13. CLEANING & MAINTENANCE

- Suitable for regular wash-down and steam-cleaning once cured.
- Routine neutral-pH scrubbing; the textured surface is designed for wet cleaning.
- Inspect coving and drains periodically.

14. HEALTH, SAFETY & ENVIRONMENT

- Uncured PU components contain isocyanates and can cause respiratory, skin and eye sensitisation — wear gloves, goggles, protective clothing and suitable respiratory protection as per the SDS.
- Ensure good ventilation; keep components dry (isocyanates react with moisture); control spills and prevent uncured material entering drains.
- Refer to the selected material's Safety Data Sheet (SDS) for full handling, first-aid, spill and disposal information.

POLYZEN INDIA PVT. LTD.

Plot No. 7 & 8, S V Heights, Haritha Vanam Colony Road, Bachupally, Hyderabad, Telangana – 500090
Phone / WhatsApp: 9640126496 | Email: info@polyzen.in | Web: polyzen.in

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Disclaimer: this interim Application Data Sheet describes POLYZEN's typical application methodology for this class of system and is provided in good faith. It is a brand-flexible application guide; exact mix ratios, consumption, film thickness and cure times are governed by the selected material's data sheet. All parameters are typical/indicative and are confirmed in the project-specific Method Statement. POLYZEN reserves the right to revise this document; the latest version supersedes all previous.