POLYZEN
WHERE SOVEREIGN SURFACES RULE

APPLICATION DATA SHEET
INTERIM

Epoxy Self-Leveling Flooring

SYSTEM FAMILY
Resin flooring / application methodology

TYPE
Seamless self-leveling epoxy floor

NOMINAL BUILD
2–3 mm nominal

1. SCOPE & SYSTEM DESCRIPTION

This Application Data Sheet describes POLYZEN's method for installing a **seamless self-leveling epoxy floor** — a jointless, monolithic resin floor at a nominal 2–3 mm applied over prepared concrete, delivering a smooth, hygienic, hard-wearing surface.

It is a **brand-flexible application guide**: the same methodology applies whether the specified material is a POLYZEN system product or a client-approved equivalent of the same type. Product performance values are given in the relevant Technical Data Sheet; a project-specific Method Statement is issued for each installation.

2. SUBSTRATE REQUIREMENTS

- New concrete cured a minimum of 28 days; sound and structurally stable.
- Compressive strength typically ≥25 N/mm² and surface tensile (pull-off) ≥1.5 N/mm² (indicative; per project).
- Falls, drainage and movement / isolation joints identified and detailed before starting.
- Substrate dry and free of oil, grease, curing compounds and previous coatings.

3. SURFACE PREPARATION

- Mechanically prepare by diamond grinding or captive shot-blasting to a clean, open profile (typical CSP 2–3). Acid etching is not accepted.
- Remove laitance, contamination and unsound material; repair cracks, spalls and joints with compatible epoxy repair mortars.
- Assess substrate moisture per **ASTM F2170** (in-situ RH); apply a moisture-mitigation primer where readings exceed the selected system's limit.
- Vacuum the prepared surface immediately before priming.

4. ENVIRONMENTAL CONDITIONS

- Substrate & ambient temperature 10–35 °C; substrate ≥3 °C above dew point throughout application and initial cure.
- Relative humidity within the selected material's limits; do not apply in falling temperatures.
- Protect the area from dust, water, direct sunlight and traffic during application and cure.

5. MATERIALS

Materials: POLYZEN self-leveling epoxy system (**ZENFLOR Pro ZF-300**) — primer, self-leveling body coat and any seal 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

- Pre-condition components to 15–25 °C.
- Power-mix the resin, add the hardener and mix thoroughly, then add graded aggregate (where used) and mix to a homogeneous, lump-free, streak-free consistency with a low-speed mixer.
- Mix full kits only, exactly as supplied — no part-mixing, no site additions of solvent or water. Respect the material's pot life.

7. APPLICATION PROCEDURE

- **Prime:** apply full-coverage epoxy primer to the prepared substrate; broadcast a light sand into the primer where a mechanical key or thicker build is required.
- **Overcoat window:** apply the body coat within the primer's recoat window, onto a tack-free but receptive surface.
- **Place body coat:** pour the mixed self-leveling material and spread to thickness with a notched trowel or pin rake.
- **De-air:** spike-roll in two directions to release entrapped air and unify the surface.
- **Seal / texture (optional):** apply seal coat or broadcast anti-slip aggregate where specified.
- Plan pours in continuous bays; maintain a wet edge to avoid visible day joints.

8. COVERAGE, COATS & THICKNESS

- Primer: typically ~0.3–0.4 kg/m² (indicative; substrate-dependent).
- Self-leveling body: typically ~1.5 kg/m² per mm of thickness (indicative).
- Nominal finished thickness 2–3 mm; number of coats and exact consumption per the selected material's TDS.

9. CURING & RETURN TO SERVICE

- Light foot traffic typically ~24 h at 25 °C (indicative).
- Return to service / wheeled traffic typically ~48–72 h at 25 °C (indicative).
- Full mechanical & chemical cure typically ~7 days at 25 °C (indicative). Cure times extend at lower temperatures — always per the selected material's TDS.

10. FINISHING — COVING & ANTI-SLIP

- Integral coving to walls and plinths where a hygienic detail is specified.
- Anti-slip texture by broadcast aggregate; slip performance evaluated per **ANSI A326.3** (DCOF) / **ASTM E303** (pendulum) for the chosen finish.

11. QUALITY-CONTROL CHECKPOINTS

- Record substrate moisture (ASTM F2170), temperature and dew point before each pour.
- Verify surface profile, cleanliness and primer coverage.
- Check wet-film / applied thickness and de-airing during placement.
- Spot-check adhesion and visual finish; log ambient conditions through cure.

12. DO'S & DON'TS

Do

- Respect pot life and overcoat windows.
- Maintain a wet edge and continuous bays.
- Control temperature, dust and dew point.
- Follow the selected material's TDS for ratios & cure.

Don't

- Don't add solvent or water to thin the mix.
- Don't apply over damp or contaminated substrate.
- Don't exceed pot life or apply below dew point.
- Don't mix products from different systems.

13. CLEANING & MAINTENANCE

- Allow full cure before wet cleaning.
- Routine: dust-mop and neutral-pH auto-scrub; avoid harsh abrasives and aggressive solvents.
- Renew the seal coat periodically in high-traffic areas to extend service life.

14. HEALTH, SAFETY & ENVIRONMENT

- Uncured epoxy resins and amine hardeners can cause skin/eye irritation and sensitisation — wear chemical-resistant gloves, goggles and protective clothing.
- Ensure adequate ventilation during mixing and application; 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.

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