



ZENFLOR Pro ZF-300

RANGE

ZENFLOR (Epoxy)

MATERIAL FAMILY / GROUP

Epoxy self-leveling / monolithic SL floor

CHEMISTRY

3-part self-leveling epoxy flooring system

1. PRODUCT DESCRIPTION

ZENFLOR Pro ZF-300 is a three-part, high-solids self-leveling epoxy flooring system that produces a seamless, dense, high-gloss monolithic floor at a nominal 2-3 mm. It suits floors demanding a hygienic, joint-free, hard-wearing surface with good resistance to abrasion, common chemicals and wheeled traffic.

The self-leveling body coat flows to a uniform, mirror-flat finish over prepared and primed concrete. Installed exclusively by POLYZEN applicator teams under a single point of responsibility.

2. SYSTEM (LAYER BUILD)

The ZENFLOR Pro system is applied by POLYZEN as one integrated installation:

LAYER	FUNCTION	DESCRIPTION
1 — Primer Coat	Penetration & adhesion	Low-viscosity epoxy primer sealing and anchoring the system; localised scratch/repair coat where required.
2 — Body Coat (Self-Leveling)	Structural wear layer	Three-part self-leveling epoxy (resin + hardener + graded aggregate), poured, spread and spike-rolled to release air; nominal 2-3 mm.
3 — Seal / Top Coat (optional)	Enhanced finish	Optional clear or pigmented seal coat for extra gloss, cleanability or anti-slip texture.

3. TYPICAL APPLICATIONS & SECTORS

- Pharmaceutical & Life Sciences
- Food & Beverage processing & packaging
- Engineering & manufacturing plants
- Electronics & precision assembly (non-ESD)
- Warehousing & distribution
- Automotive & component plants
- Healthcare & laboratory support
- Commercial & retail back-of-house

For severe chemical attack or thermal shock, refer to ZENFLOR Sovereign ZF-500 or ZENPU Cretescreed ZP-300 respectively.

4. KIT COMPOSITION

COMPONENT	DESCRIPTION
Part A — Resin	Pigmented bisphenol-A epoxy resin base
Part B — Hardener	Cycloaliphatic amine curing agent
Part C — Aggregate	Graded aggregate / filler blend for the self-leveling body

Supplied as a pre-measured three-part kit. Mix full kits only, exactly as supplied — no part-mixing, no site additions. Kit pack size: **to be confirmed**. The formulation is proprietary to POLYZEN and is not disclosed.

5. TYPICAL / INDICATIVE PROPERTIES

Typical / indicative values — not a guaranteed specification; confirmed against POLYZEN batch testing & project commissioning.

PROPERTY	TEST METHOD	TYPICAL / INDICATIVE VALUE
Finish	—	High-gloss, seamless, self-leveled
Solids content	—	High-solids / solvent-free class (indicative)
Applied thickness	—	2–3 mm nominal self-leveling body (indicative)
Coverage / consumption	—	~1.5 kg/m ² per mm of thickness (indicative; substrate-dependent)
Pot life (mixed kit)	—	~25–40 min at 25 °C (indicative; shorter when warmer)
Overcoat interval	—	~12–24 h at 25 °C (indicative)
Light foot traffic	—	~24 h at 25 °C (indicative)
Full mechanical / chemical cure	—	~7 days at 25 °C (indicative)
Application temperature	—	10–35 °C; substrate ≥3 °C above dew point (indicative)
Substrate moisture	ASTM F2170	Within system limits per project assessment (indicative)
Hardness, Shore D	ASTM D2240	~75–85 (indicative)
Compressive strength	ASTM C579	~50–70 MPa (indicative)
Pull-off adhesion to concrete	ASTM D4541	>1.5 N/mm ² , typically cohesive failure in concrete (indicative)
Abrasion resistance (Taber)	ASTM D4060	~60–90 mg loss, CS-17, 1 kg, 1000 cycles (indicative)
Chemical resistance	ASTM C267	Resists dilute acids, alkalis, mineral oils, fuels & detergents under intermittent exposure (indicative; project schedule to be reviewed)
VOC content	—	Low-VOC / solvent-free class (indicative)

6. SURFACE PREPARATION

- **Concrete age & strength:** new concrete cured a minimum of 28 days; sound, structurally stable substrate of adequate strength for the intended service.
- **Mechanical preparation:** diamond grinding or captive shot-blasting to remove laitance, curing compounds and contamination, producing a clean, open-textured profile. Acid etching is not accepted.
- **Moisture:** substrate assessed per ASTM F2170 (in-situ RH) before application; moisture-mitigation primer specified where readings exceed system limits.
- **Repairs:** cracks, joints and defects repaired with compatible epoxy repair mortars before priming.
- **Priming:** full-coverage primer applied to the prepared substrate; the body coat is applied within the primer's overcoat window.

7. APPLICATION (OVERVIEW)

- **Mixing:** pre-condition kits to 15–25 °C. Power-mix components in sequence to a homogeneous, lump-free consistency using a low-speed mixer. Mix full kits only, exactly as supplied.
- **Placement:** apply by the specified method (roller / squeegee-and-backroll / notched trowel + spike-roll) at the stated rate; maintain a wet edge.

- **Intervals:** respect pot life, overcoat windows and cure times; plan pours in continuous bays to avoid day joints in visual areas.
- **Environment:** control ventilation, dust and direct sunlight during application and initial cure; protect from water and contamination until full cure.

A full project-specific Method Statement (bay layout, joint detailing, coving, quality checkpoints) is issued by POLYZEN for every installation.

8. STANDARDS & COMPLIANCE

The ZENFLOR Pro system supports compliance with the following (subject to system design, project detailing & site testing):

- **Performance test methods:** ASTM C579 (compressive), ASTM D4541 (pull-off adhesion), ASTM D4060 (Taber abrasion), ASTM C267 (chemical resistance), ASTM D2240 (Shore hardness), ASTM F2170 (substrate relative humidity).
- **Hygiene-critical environments:** supports compliance with facility requirements under FSSAI and HACCP frameworks (Food & Beverage), and WHO-GMP, EU-GMP Annex 1, US FDA cGMP 21 CFR 211 and Revised Schedule M (Pharmaceutical & Life Sciences), through its seamless, non-dusting, cleanable finish — subject to overall facility design and validation.
- **Slip resistance (where a textured finish is specified):** evaluated per ANSI A326.3 (DCOF) and ASTM E303 (pendulum), subject to system design, footwear & site testing.

9. PACKAGING, STORAGE & SAFETY

- **Packaging:** pre-measured three-part kits. Pack size: **to be confirmed**.
- **Storage:** keep in original sealed containers, off the ground, in a dry covered area at 5–30 °C, away from direct sunlight, heat and moisture. Shelf life per batch labelling.
- **Safety:** uncured resins and hardeners can cause skin/eye irritation and sensitisation. Wear PPE (chemical-resistant gloves, goggles, protective clothing); ensure ventilation. Do not allow uncured material to enter drains.
- **SDS:** refer to the product Safety Data Sheet before use.

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ZENFLOR Pro — Self-Leveling Epoxy Flooring System

Disclaimer: this interim Technical Data Sheet is given in good faith based on POLYZEN's current knowledge of this class of product. All values are typical / indicative only and do not constitute a guaranteed specification, warranty or certification. Final performance depends on substrate condition, system design, workmanship and service conditions, and is confirmed through POLYZEN batch testing and project commissioning. POLYZEN reserves the right to revise this document; the latest version supersedes all previous.