POLYZEN
WHERE SOVEREIGN SURFACES RULE

APPLICATION DATA SHEET
INTERIM

Epoxy Mortar / Screed Flooring

SYSTEM FAMILY
Resin flooring / application methodology

TYPE
Heavy-duty / chemical-resistant epoxy mortar

NOMINAL BUILD
3–6 mm

1. SCOPE & SYSTEM DESCRIPTION

This Application Data Sheet describes POLYZEN's method for installing a **heavy-duty epoxy mortar / screed** at 3–6 mm — a dense, high-strength, chemically resistant floor for demanding industrial and process areas, including a novolac build for aggressive exposure.

It is a **brand-flexible application guide** applicable with a POLYZEN system product or a client-approved equivalent of the same type.

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 chemical-resistant epoxy mortar system (**ZENFLOR Sovereign ZF-500 (novolac build)**) — 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

- Pre-condition components to 15–25 °C.
- Power-mix the resin, add the hardener and mix thoroughly, then add graded filler/aggregate (where used) 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 chemically compatible epoxy primer; blind with sand where a key is required.
- **Screed / mortar:** place the trowel-applied or self-leveling epoxy mortar to 3–6 mm; compact and finish to level.
- **Grout / seal:** apply epoxy grout coat to close porosity, then a chemical-resistant (novolac) seal in aggressive zones.
- **Detailing:** form coving, bunds and falls as specified.

8. COVERAGE, COATS & THICKNESS

- Primer: ~0.3–0.4 kg/m² (indicative).
- Mortar body: system-based per thickness (~1.8–2.2 kg/m² per mm, indicative).
- Seal: ~0.2–0.4 kg/m² (indicative). Per 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 data sheet.

10. FINISHING & DETAILING

- Integral coving, bunds and falls to containment detailing.
- Chemical-resistant seal in acid/solvent zones; anti-slip texture where specified (ANSI A326.3 / ASTM E303).

11. QUALITY-CONTROL CHECKPOINTS

- Record substrate moisture (ASTM F2170), temperature and dew point before each application.
- Verify surface profile, cleanliness and primer coverage.
- Check wet-film / applied thickness 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 data sheet 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.

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