POLYZEN

WHERE SOVEREIGN SURFACES RULE

APPLICATION DATA SHEET

INTERIM

Grouting & Structural Repair

SYSTEM FAMILY
Repair / application methodology

TYPE
Epoxy injection grouting, crack injection & structural repair

NOMINAL BUILD
per detail

1. SCOPE & SYSTEM DESCRIPTION

This Application Data Sheet describes POLYZEN's method for **epoxy injection grouting, crack injection, expansion-joint sealing and structural repair** — restoring integrity and sealing cracks in concrete and masonry.

Delivered as a **POLYZEN Applied System** using client-approved injection resins, repair mortars and sealants — no POLYZEN branded product is required.

2. SUBSTRATE REQUIREMENTS

- Sound parent concrete/masonry adjacent to the defect; the extent of cracking, delamination or damage assessed before work.
- Cracks and joints characterised (dormant vs live) to select the correct resin/sealant.

3. SURFACE PREPARATION

- Rout / open cracks and defects as required; remove unsound material and clean by grinding, needle-gun or grit-blast.
- For injection: install surface-mounted or drilled injection ports at spacing suited to the crack width/depth; seal the crack surface between ports.
- For structural repair: expose and clean reinforcement, apply anti-corrosion primer where specified.

4. ENVIRONMENTAL CONDITIONS

- Apply within the selected material's temperature limits; keep injection resins and mortars dry.
- Protect fresh repairs from water and traffic until cured.

5. MATERIALS

Materials: delivered as a **POLYZEN Applied System** using a client-approved epoxy injection resin, polymer-modified repair mortar and joint-sealant system as per the project specification and standards. Exact products, consumption, thickness and cure times are per the **selected material's data sheet**. No POLYZEN branded product is required for this system.

6. MIXING

- Mix injection resins, repair mortars and sealants strictly per their data sheets; mix full units and respect pot life.

7. APPLICATION PROCEDURE

- **Injection grouting / crack injection:** inject low-viscosity epoxy through ports from lowest to highest until refusal; allow to gel; remove ports and grind flush.
- **Structural repair:** prime the substrate/reinforcement, apply repair mortar in lifts to profile, and finish.
- **Expansion-joint sealing:** install backer rod to the correct depth and apply the specified joint sealant to the designed profile.

8. COVERAGE, COATS & THICKNESS

- Injection resin, repair mortar and sealant consumption per the selected material's data sheet and the measured defect volume.

9. CURING & RETURN TO SERVICE

- Cure per the selected material before load / service (typically hours to days, indicative).

10. FINISHING & DETAILING

- Grind ports and repairs flush; match surface profile.
- Seal movement joints to the correct sealant profile (width:depth) with backer rod.

11. QUALITY-CONTROL CHECKPOINTS

- Verify port spacing and crack sealing before injection.
- Confirm refusal / full penetration during injection.
- Check repair profile, compaction and bond.
- Record joint sealant depth and tooling.

12. DO'S & DON'TS

Do

- Inject from lowest to highest port to refusal.
- Use backer rod to control sealant depth.
- Prime exposed reinforcement where specified.
- Follow the selected material's data sheet.

Don't

- Don't inject a wet/contaminated crack.
- Don't over-tool or over-fill joints.
- Don't load repairs before cure.
- Don't mix incompatible resins/sealants.

13. CLEANING & MAINTENANCE

- Keep repaired joints and cracks inspected for re-opening.
- Maintain movement-joint sealant as it weathers.
- Address new cracking promptly.

14. HEALTH, SAFETY & ENVIRONMENT

- Follow the selected material's SDS — epoxy injection resins and some sealants are irritants/sensitisers.
- Provide PPE, ventilation and eye protection; control high-pressure injection safely.
- Manage silica dust during routing/grinding with extraction and RPE.

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