POLYZEN
WHERE SOVEREIGN SURFACES RULE

APPLICATION DATA SHEET
INTERIM

External Wall Waterproofing

SYSTEM FAMILY
Applied waterproofing / vertical facade

TYPE
Wind-driven rain: breathable vs film-forming

NOMINAL BUILD
~200–400 µm (elastomeric)

1. SCOPE & SYSTEM DESCRIPTION

This ADS describes POLYZEN's method for **external wall waterproofing** — vertical facades exposed to wind-driven rain and low hydrostatic head, where the key decision is **breathability vs crack-bridging**.

Delivered as a **POLYZEN Applied System**. Use a breathable penetrating repellent where the substrate must breathe and is crack-free; use a film-forming, crack-bridging elastomeric where hairline cracks or water films exist. A wet / rising-damp wall must never be film-sealed.

2. SUBSTRATE REQUIREMENTS

- Sound wall / plaster (new plaster cured 21–28 days); loose paint, dust and oil removed.
- **Efflorescence removed** (dry-brush → dilute acid if needed → neutralise / rinse — salts must be gone).
- Cracks routed and filled; spalled plaster repaired; dry for acrylics, SSD for PMC / silane.

3. SURFACE PREPARATION

- Clean by wire brush / pressure wash / grinding; remove efflorescence and laitance.
- Rout and fill cracks with polymer mortar / sealant; apply membrane + fabric over wide cracks.
- Seal frame junctions and form drip grooves under sills, copings and chajjas.

4. ENVIRONMENTAL CONDITIONS

- Apply to a dry surface for acrylics / elastomerics; avoid application in rain, high wind or on a hot substrate.
- Silane / siloxane: apply to a clean, dry surface; keep rain-free 4–6 h.

5. MATERIALS

Materials: delivered as a **POLYZEN Applied System** using a client-approved external-wall waterproofing system — e.g. acrylic elastomeric (crack-bridging, film-forming), penetrating silane / siloxane repellent (breathable, non-film), 2-component polymer-modified cementitious, or a crack-bridging fabric-reinforced membrane — chosen to match the substrate condition, selected to suit 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. MATERIALS PREPARATION / MIXING

- Prepare the selected material per its data sheet (elastomeric: thin the first coat ~10–15% water where specified; PMC: powder into polymer; silane: ready-to-use).
- Mix full units; respect working time.

7. APPLICATION PROCEDURE

- **Repair first:** fill cracks and joints; reinforce wide cracks and junctions with fabric.
- **Prime / first coat:** apply the primer / thinned first coat (silane is a self-priming flood coat).
- **Build coats:** apply the base coat with fabric at cracks / junctions, then a second coat at right angles to the specified DFT (~200–400 µm for elastomerics). For silane, apply wet-on-wet to refusal — no film is built.

- **Junctions:** seal window / door frame-to-wall junctions with PU / polysulphide and form drip grooves.

8. COVERAGE, LAYERS & FALLS

- Two coats at right angles to ~200–400 µm (elastomeric); silane per the substrate's absorption (L/m² to refusal).
- Slopes are not primary — ensure ledges, copings and sills fall away with drip grooves.
- Reference standards: IS 3067, IS 2645; ref. ASTM D6083, EN 1062, RILEM TC 25-PEM.

9. CURING & RETURN TO SERVICE

- Acrylic: touch-dry 1–2 h, recoat 4–6 h, full cure ~7 days (avoid rain 24–48 h).
- PMC 3–7 days; silane rain-free 4–6 h — per the selected material's data sheet.

10. FINISHING, PROTECTION & OVERLAY

- Elastomeric / PMC overcoatable with a decorative exterior emulsion; silane leaves an invisible finish (only breathable topcoats).
- Sealed frame junctions, drip grooves and plinth / DPC continuity.

11. TESTING & QC CHECKPOINTS

- RILEM tube (Test 11.4) water-absorption before / after where specified; water-spray / driving-rain check.
- Adhesion pull-off (ASTM D4541 / D7234); DFT (wet comb + dry gauge) and coverage rate (L/m²).

12. DO'S & DON'TS

Do

- Remove efflorescence and repair cracks first.
- Match the system to the substrate (breathe vs crack-bridge).
- Apply two coats at right angles and hit the coverage rate.
- Seal frame junctions, drip grooves and the plinth.

Don't

- Don't film-seal a damp / rising-damp wall — it blisters.
- Don't apply in rain, wind or on a hot substrate.
- Don't leave frame junctions and copings undetailed (most 'coating failures' are undetailed junctions).
- Don't skip efflorescence removal.

13. MAINTENANCE

- Wash the facade periodically; inspect junctions, copings and drip grooves.
- Recoat elastomerics / re-apply repellent as they weather.
- Repair new cracks promptly with fabric-reinforced patching.

14. HEALTH, SAFETY & ENVIRONMENT

- Follow the selected material's SDS; silanes are flammable / solvent-based, acid cleaning (efflorescence) needs eye / skin protection.
- Enforce working-at-height controls (scaffold / access); provide ventilation and PPE.
- Control overspray and prevent runoff into drains.

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