POLYZEN
WHERE SOVEREIGN SURFACES RULE

APPLICATION DATA SHEET
INTERIM

Roof Waterproofing

SYSTEM FAMILY
Applied waterproofing / roof (exposed)

TYPE
Flat / low-slope / pitched-metal; often left exposed

NOMINAL BUILD
per system

1. SCOPE & SYSTEM DESCRIPTION

This ADS describes POLYZEN's method for **roof waterproofing** across roof forms — flat, low-slope and pitched / metal-sheet roofs — where the system is frequently left **exposed** to sun and rain.

Delivered as a **POLYZEN Applied System**. Because many roofs are exposed and sloped / metal roofs self-drain, the focus shifts to **laps, welds and flashing** rather than screed falls.

2. SUBSTRATE REQUIREMENTS

- Clean, sound substrate; cracks and voids sealed; **dry and primed** for membranes / liquids.
- Metal roofs de-greased and de-rusted; loose fasteners addressed.
- Existing coatings assessed for compatibility.

3. SURFACE PREPARATION

- Clean to a sound surface; repair cracks and voids; prime per the selected system.
- Detail upstands (min ~150 mm), coving fillets, sump-dressed drains and (pitched) ridge / valley flashing.
- For metal roofs, treat fastener heads, laps and corrosion.

4. ENVIRONMENTAL CONDITIONS

- Apply to a dry substrate (moisture causes blistering); avoid application before rain.
- Torch-on membranes require fire precautions; liquids cure between coats per the data sheet.

5. MATERIALS

Materials: delivered as a **POLYZEN Applied System** using a client-approved roof waterproofing system — e.g. APP/SBS modified-bitumen membrane (granule-faced, exposable), liquid-applied PU / acrylic elastomeric (UV-reflective 'cool'), polymer-modified cementitious, or single-ply PVC / TPO / EPDM sheet for large commercial roofs; for metal roofs, lap tapes / sealants and fastener treatment, 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; mix full units and respect working time.

7. APPLICATION PROCEDURE

- **Prime:** prime the dry substrate.
- **Bitumen route:** torch / adhere the membrane working uphill with laps 75–100 mm fully sealed; reinforce corners, drains and upstands; expose the granule face or add a reflective coat.
- **Liquid route:** primer → coat 1 with fleece at joints → coat 2 at right angles to ~1.5 mm DFT → optional UV topcoat.
- **Single-ply route:** fasten / adhere sheets → hot-air-weld the seams → flash all details. On pitched / metal roofs, lay laps uphill to shed water.

8. COVERAGE, LAYERS & FALLS

- Laps 75–100 mm (bitumen); ~1.5 mm DFT (liquid); sheet gauge per specification.
- Flat roofs 1:80–1:100 falls; pitched / metal roofs self-drain — detailing is the focus.
- Reference standards: IS 1346, IS 3067, IS 2645, IS 7198 / 13182; ref. ASTM D6083 / D6134 / D4434 / D6878 / D4637.

9. CURING & RETURN TO SERVICE

- Bitumen: effectively immediate on cooling.
- Liquid PU: light traffic ~24–48 h, full ~7 days.
- Single-ply: on completion — per the selected system's data sheet.

10. FINISHING, PROTECTION & OVERLAY

- Often left exposed (granule / reflective finish).
- If trafficked / ballasted → protection screed + geotextile + pavers / gravel (inverted roof).
- All upstands, drains, laps and flashings detailed watertight.

11. TESTING & QC CHECKPOINTS

- Flood test (flat roofs) 48–72 h.
- Seam weld probe / pull test + electronic leak detection (single-ply); DFT / adhesion (liquids).

12. DO'S & DON'TS

Do

- Apply to a dry, primed substrate.
- Seal every lap / weld / flashing (the usual failure point).
- Correct falls before bridging any ponds.
- Use a primer / tie-coat between incompatible chemistries.

Don't

- Don't apply over damp substrate (blisters).
- Don't leave laps / welds unsealed.
- Don't ignore ponding — fix falls first.
- Don't overlay incompatible systems without a tie-coat.

13. MAINTENANCE

- Keep roof drains and outlets clear; inspect laps, welds and flashings after storms.
- Recoat exposed liquid systems as they weather.
- Repair mechanical damage promptly.

14. HEALTH, SAFETY & ENVIRONMENT

- Follow the selected material's SDS; torch-on bitumen needs fire watch and extinguishers, PU / solvent systems need ventilation.
- Enforce working-at-height and fragile-roof (metal) controls.
- Control spills and prevent uncured material entering drains.

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