POLYZEN
WHERE SOVEREIGN SURFACES RULE

TECHNICAL DATA SHEET
INTERIM

ZENSTAT Dissipative ZS-200

RANGE
ZENSTAT (ESD)

MATERIAL FAMILY / GROUP
ESD dissipative / static-dissipative

CHEMISTRY
static-dissipative ESD flooring system

1. PRODUCT DESCRIPTION

ZENSTAT Dissipative ZS-200 is a complete static-dissipative ESD flooring system — conductive primer, copper earthing network and a dissipative wear coat — designed to control static in electronics and sensitive environments by draining charge to earth in a controlled manner.

Per ANSI/ESD S20.20 and IEC 61340-5-1, dissipative floors fall in the 10^6–10^9 Ω band; the installed value depends on the complete floor, footwear, grounding and maintenance and is verified at commissioning. Installed by POLYZEN.

2. SYSTEM (LAYER BUILD)

The ZENSTAT Dissipative system is applied by POLYZEN as one integrated installation:

LAYER	FUNCTION	DESCRIPTION
1 — Conductive Primer	Adhesion & conductivity	Conductive epoxy primer sealing and priming the prepared substrate and forming the base of the earthing network.
2 — Earthing Grid	Grounding path	Copper strips / grid laid to a designed pattern and bonded to building earth to provide a continuous ground reference.
3 — Dissipative Coat	Static-dissipative wear layer	Dissipative epoxy wear coat providing a controlled resistance-to-ground finish.

3. TYPICAL APPLICATIONS & SECTORS

- Electronics manufacturing & assembly
- Data centres & server halls
- Telecom & control rooms
- Defence electronics
- PCB & semiconductor support
- Laboratories & metrology

4. KIT COMPOSITION

COMPONENT	DESCRIPTION
Part A — Resin	Conductive-formulated epoxy resin base
Part B — Hardener	Cycloaliphatic amine curing agent
Part C / Primer & Grid	Conductive primer + copper earthing network

Supplied as a pre-measured three-part (with earthing) 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	—	Satin–gloss dissipative finish; colour range
Solids content	—	High-solids / solvent-free class (indicative)
Applied thickness	—	~2 mm system (indicative)
Pot life (mixed kit)	—	~25–40 min at 25 °C (indicative)
Overcoat interval	—	~12–24 h at 25 °C (indicative)
Light foot traffic	—	~24 h at 25 °C (indicative)
Full 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)
Resistance to ground	ANSI/ESD STM7.1	Typically 10^6–10^9 Ω dissipative band per ANSI/ESD S20.20 / IEC 61340-5-1; installed value per project TDS & commissioning (indicative)
Body voltage generation	ANSI/ESD STM97.2	Typically <100 V walking test (standard threshold; depends on footwear & grounding) (indicative)
Pull-off adhesion to concrete	ASTM D4541	>1.5 N/mm², typically concrete failure (indicative)
Abrasion resistance (Taber)	ASTM D4060	~40–80 mg loss, CS-17, 1 kg, 1000 cycles (indicative)
Chemical resistance	ASTM C267	Resists dilute acids, alkalis, oils & common spillage; schedule per project (indicative)
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 / shot-blasting to a clean, open profile; remove laitance and contamination.
- **Earthing network:** install the copper earthing grid / strips and bond to the building earth as designed before the conductive coats.
- **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 ZENSTAT Dissipative system supports compliance with the following (subject to system design, project detailing & site testing):

- **ESD / static control:** supports compliance with ANSI/ESD S20.20 and IEC 61340-5-1; resistance per ANSI/ESD STM7.1 and body-voltage per ANSI/ESD STM97.2. Installed performance depends on floor + footwear + grounding + maintenance and is confirmed by site commissioning.
- **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).

9. PACKAGING, STORAGE & SAFETY

- **Packaging:** pre-measured three-part (with earthing) 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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