STATIC-CONTROL FLOORING

StaticGuard EP610

SOLVENT-FREE CONDUCTIVE EPOXY FLOORING

Rayson StaticGuard EP610 is a two-component, solvent-free conductive epoxy flooring that gives ESD-protected areas a self-smoothing, permanently conductive, chemically resistant wearing surface.

StaticGuard EP610 is the static-control floor in the Rayson range. The solvent-free, 100%-solids epoxy self-smooths into a seamless surface whose conductivity is built into the cured matrix — not a surface treatment that wears away. Measured electrostatic behaviour falls in the 10^4–10^6 ohm range on average, placing floors in conductive ESD territory when installed and earthed correctly.

KEY PROPERTIES

- Permanent conductivity through the coating body (average 10^4–10^6 ohms)
- 100% solids, solvent-free and low VOC
- Self-smoothing, seamless, easy-to-clean finish
- High bond strength with excellent impact and chemical resistance
- Static control
- Chemical resistance
- Abrasion resistance
- Hygiene / washdown
- Low odour



Illustration — two-part set, Part A + Part B. Pack sizes: see this data sheet.

MIX RATIO	COVERAGE	POT LIFE	FULL CURE	PACK SIZE
4:1	2.25 kg/m²	25 min	7 days	20 kg set
A:B by weight	at approx. 1.5 mm	at 28 °C	min. heavy traffic 72 h	16 + 4 kg

01 RECOMMENDED USES

- ESD-protected and dissipative-compliant areas
- Electronics facilities and data centres
- Antistatic flooring and walls
- EMI and RFI shielding installations
- Pharmaceutical facilities and aerospace hangars
- Warehouses and storage areas requiring static control

02 SUITABLE SUBSTRATES

- Mechanically prepared concrete (minimum 28 days old, moisture content below 5%)
- Substrate pull-off strength above 1.5 N/mm² after preparation

03 SYSTEM ROLE

RAYSON STATICGUARD EP610 CONDUCTIVE COAT	This product
CONDUCTIVE EARTHING LAYER + GROUNDING POINTS	System element
RAYSON CONDUCTIVE PRIMER	Per system
PREPARED CONCRETE SUBSTRATE	Moisture ≤ 5%

Figure 1 — Typical system build-up (top to bottom). Layer thicknesses are system-dependent; confirm the specification for your project.

Technical data & application controls

Control the substrate, mix, application conditions and cure before handover.

SOURCE TECHNICAL DATA

SURFACE PREPARATION	Substrate must be sound, clean and free of oil, grease, laitance, loose material and bond-inhibiting contaminants. Prepare concrete mechanically (captive shot blasting, milling or diamond grinding); remove weak concrete, open blowholes and voids, and reinstate imperfections with a suitable Rayson repair product. Vacuum all dust. New concrete should be at least 28 days old. A conductive earthing layer and grounding points must be installed as part of the static-control system.
MIXING / DILUTION	Two pre-weighed parts, mix ratio 4:1 (A:B) by weight; mix mechanically for at least 2–3 minutes; pot life up to 25 minutes at 28 °C
APPLICATION METHOD	Steel trowel, Notched rake, Squeegee and roller, Spike roller immediately after trowelling
COVERAGE	Minimum 2.25 kg binder per m² per coat at approximately 1.5 mm (optionally +0.25 kg quartz sand); approximately 5–8 m²/L at 75 µm DFT for thin coats; maximum ~2.5 kg/m² binder plus filler at 1.5 mm
APPLICATION CONDITIONS	Minimum substrate temperature 5 °C; substrate moisture content max 5%; minimum mixing temperature +10 °C; cure between +10 °C and +35 °C; prepared substrate pull-off strength above 1.5 N/mm².

CONDITIONS, PACKAGING & STORAGE

DRYING & CURING	Full cure approximately 7 days; minimise heavy traffic for 72 hours after application
RECOAT INTERVAL	Available from the Rayson technical team on request.
FILM / THICKNESS	Target dry film thickness in the order of 1.0–1.5 mm.
PACK SIZES	Part A 16 kg / Part B 4 kg per set
STORAGE	Minimum 12 months at 5–30 °C in unopened original packaging; protect from direct sunlight.
SHELF LIFE	Approximately 12 months unopened; sunlight exposure reduces shelf life.

04 APPLICATION WORKFLOW

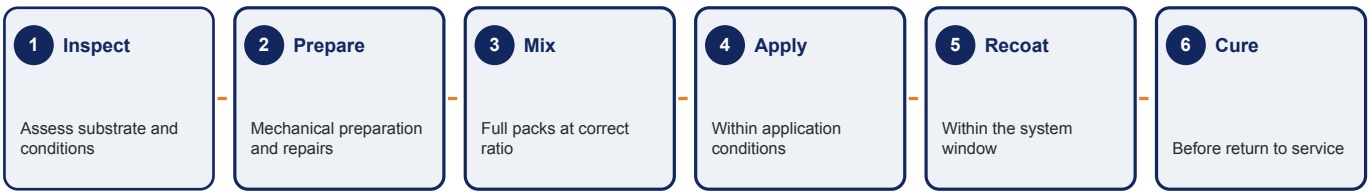

Figure 2 — Application workflow. Each stage is a hold point: confirm the previous stage is complete and within specification before proceeding.

Specify, apply and verify the system

SITE VERIFICATION

Surface-resistance performance and the earthing design must be verified on site against the project ESD target after installation.

05 RECOMMENDED SYSTEM

ESD floor system

1. Mechanically prepare the slab and repair defects with Rayson PatchBond EP220
2. Prime with Rayson PrimeBond EP110 and install earthing points to the agreed layout (system primer selection to be confirmed by the Rayson technical team)
3. Apply Rayson StaticGuard EP610 at the specified thickness and spike-roll to de-aerate
4. Verify floor resistance after cure with documented testing

06 LIMITATIONS

- Applying above the stated film thickness reduces conductivity — thickness control is critical
- Measured resistance readings are affected by ESD clothing, ambient conditions, measurement equipment, floor cleaning and test personnel
- Minimum substrate temperature 5 °C; curing between +10 °C and +35 °C; concrete moisture content maximum 5%
- Requires planned earthing points and post-installation resistance verification

07 HEALTH & SAFETY

Two-component product. Wear gloves, eye protection and suitable respiratory protection where ventilation is limited. Avoid skin and eye contact. Keep out of reach of children. Consult the Safety Data Sheet (in preparation) before use.

DISCLAIMER

The information in this data sheet is given in good faith and reflects typical values and general good practice. Because site conditions and workmanship are beyond our control, Rayson gives no warranty implied from this document; users should verify suitability for their specific application and confirm they are working from the current issue. For project-specific advice, contact the Rayson technical team.

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