



SPARCO PAINTS (S) PTE LTD

PRODUCT DATA SHEET

ESD Flooring Systems

SPARCO ElectroShield SL 110

Solvent-Free, Two-Component Conductive Epoxy Coating

A high-performance, solvent-free conductive epoxy flooring for ESD-protected areas, combining permanent conductivity with high chemical resistance and mechanical strength.

SPARCO ElectroShield SL 110 is a high-performance, two-component, solvent-free epoxy flooring for electrostatic discharge (ESD) protected areas. It combines excellent chemical resistance and high mechanical strength with permanent conductivity, and is an excellent choice for a self-smoothing finish in electronics, data centre and clean-room environments.

Electrostatically Conductive:

Permanent conductivity for dissipative / ESD-compliant floors; earth resistance Rg from 10^4 to $10^6 \Omega$.

EMI / RFI Shielding:

Suitable for electromagnetic and radio frequency interference shielding on floors and walls.

High Mechanical Strength:

Tensile and flexural strength up to 40 N/mm² with excellent impact resistance.

Chemical Resistant:

Excellent chemical resistance with a durable, seamless, easy-to-clean surface.

Solvent-Free, Low VOC:

Solvent-free, low-VOC formulation with high bond strength on concrete.

Self-Smoothing Finish:

Applied as a self-smoothing finish by squeegee and roller.

FIELDS OF APPLICATION

- ▶ Electronics facilities and data centres
- ▶ Antistatic flooring and walls
- ▶ EMI / RFI shielded areas
- ▶ Pharmaceutical facilities
- ▶ Aerospace hangars
- ▶ Warehouses and storage areas

System Design

	Self-Levelling ElectroShield SL 110
	Conductive Layer
	Primer
	Substrate

Technical Profile*

SOLIDS

Part A / Part B **100% / 100%**

COLOUR

Part A / Part B
Pigmented / Clear, lightly amber

DENSITY

ASTM D4052, @ 25°C
1.42±0.05 / 0.95±0.03 g/cm³

MIXING RATIO

Part A : Part B, by weight **4 : 1**

POT LIFE

@ 28°C **Up to 25 minutes**

EARTH RESISTANCE

average, Rg **$10^4 - 10^6 \Omega$**

TENSILE STRENGTH

to concrete, quartz-filled
Up to 40 N/mm²

FLEXURAL STRENGTH

30% quartz-filled **Up to 40 N/mm²**

ABRASION RESISTANCE

CS10/1000 cycles, cured 7 days
100 mg loss

CONSUMPTION

≈ 1.5 mm DFT
5–8 m²/L at 75 µm DFT

SHELF LIFE

Part A / Part B, unopened
12 / 12 months

* Typical properties of unmixed material at 25°C unless stated. Readings may be affected by ESD clothing, ambient conditions and test method; values are not binding specifications.



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SPARCO ELECTROSHIELD SL 110

Solvent-Free, Two-Component Conductive Epoxy Coating

Model Specification

System	SPARCO ElectroShield SL 110 ESD System
Type	Two-component solvent-free conductive epoxy
Build-up	Self-smoothing conductive finish, target DFT 1.0–1.50 mm
Manufacturer	Sparco Paints (S) Pte Ltd

Preparatory work and application in accordance with manufacturer's instructions.

Surface Preparation

Substrate must be dry, sound, clean and free from oil, grease, loose material, surface contaminants and other bond-inhibiting materials. Prepare concrete mechanically by ball blasting, milling or diamond grinding. Remove weak concrete and fully expose surface defects such as blowholes and voids; fill cracks, holes and gouges with proper patching materials. Remove all dust and loose material, preferably by vacuum cleaner. Moisture content must not exceed 5%. On new concrete, apply at least 28 days after construction.

Packaging

Product	Pack Size
SPARCO ElectroShield SL 110 (Part A + B)	20 kg set (Part A: 16 kg, Part B: 4 kg)
Quartz sand (conductive filler)	As specified (≈ 0.25 kg per coat)
Xylene or Toluene (cleaner)	As required

Technical Assistance

Please contact Sparco Paints (S) Pte Ltd for technical assistance, specification support and application advice.

Warranty

LIMITED WARRANTY: Sparco Paints (S) Pte Ltd warrants that, at the time and place of shipment, our materials will be of good quality and will conform to our published specifications in force on the date of acceptance of the order.

DISCLAIMER: The information contained herein is included for illustrative purposes only and, to the best of our knowledge, is accurate and reliable. As Sparco Paints (S) Pte Ltd has no control over the use to which others may put its products, it is recommended that products be tested to determine suitability for specific applications. Responsibility remains with the architect or engineer, contractor and owner for the design, application and proper installation of each product. Specifier and user shall determine the suitability of the product for its specific application and assume all responsibility in connection therewith.

Application Guidelines

Parameter	Value
Mixing ratio (by weight)	4 : 1
Pot life @ 28°C	Up to 25 minutes
Earth resistance (Rg)	$10^4 - 10^6 \Omega$
Target DFT	1.0–1.50 mm
Consumption	5–8 m ² /L at 75 μ m DFT
Full cure @ 25°C	7 days

IMPORTANT

Do not apply in excess of the stated thickness — applying thicker than ≈ 1.5 mm (max total binder + filler ≈ 2.5 kg/m²) will reduce conductivity. Substrate must be cured at least 28 days (new concrete) with moisture $\leq 5\%$ and adhesion strength > 1.5 N/mm². Mix and cure between +10°C and +35°C; process within the pot life. Minimise heavy traffic for a further 72 hours after application.

Product Preparation

Prior to application, store the product under cover in dry conditions and protect from temperature extremes, which may cause inconsistent workability, finish and curing times. Ideally, maintain the product at approximately 25°C for at least 24 hours before mixing.

SPARCO ElectroShield SL 110 is supplied in pre-weighed parts; no additions or omissions are required. Pour all of Component A into a clean mixing barrel, add all of Component B, and mix homogeneously for at least 2–3 minutes with a mechanical stirrer. Apply with squeegee and roller for a self-smoothing finish, then use a spiked roller immediately after trowelling to release air bubbles.

Cleaning

Remove uncured SPARCO ElectroShield SL 110 from tools and equipment with suitable solvents such as Xylene or Toluene immediately after use. Cured material may only be removed mechanically.

Storage

Store for a minimum of twelve months at 5°C to 30°C in unopened original packaging. Protect from direct sunlight, as excessive exposure will reduce shelf life.

Health & Safety

SPARCO ElectroShield SL 110 is physiologically harmless once cured. Standard safety precautions are advised when handling — refer to the Safety Data Sheet (SDS) for full details.