Epoxy Flooring System for – Static Dissipative / Anti-Static Applications

By Ressichem Private Limited

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Why Epoxy Floorings for **Static Dissipative / Anti-Static Applications**

Static electricity, when uncontrolled, can lead to **electronic component damage, data loss, or even ignition hazards** in sensitive environments. In facilities where electrostatic discharge (ESD) is a risk, it is essential to use a flooring system capable of **dissipating static charge in a controlled and safe manner**.

The **Epoxy Flooring System for Static Dissipative / Anti-Static Applications** by **Ressichem** is a **specially formulated conductive epoxy coating system** that prevents static buildup and safely channels electrical charges through the floor to a grounding point. This ensures operational safety, equipment protection, and compliance with industrial ESD control standards.

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This System is ideal for

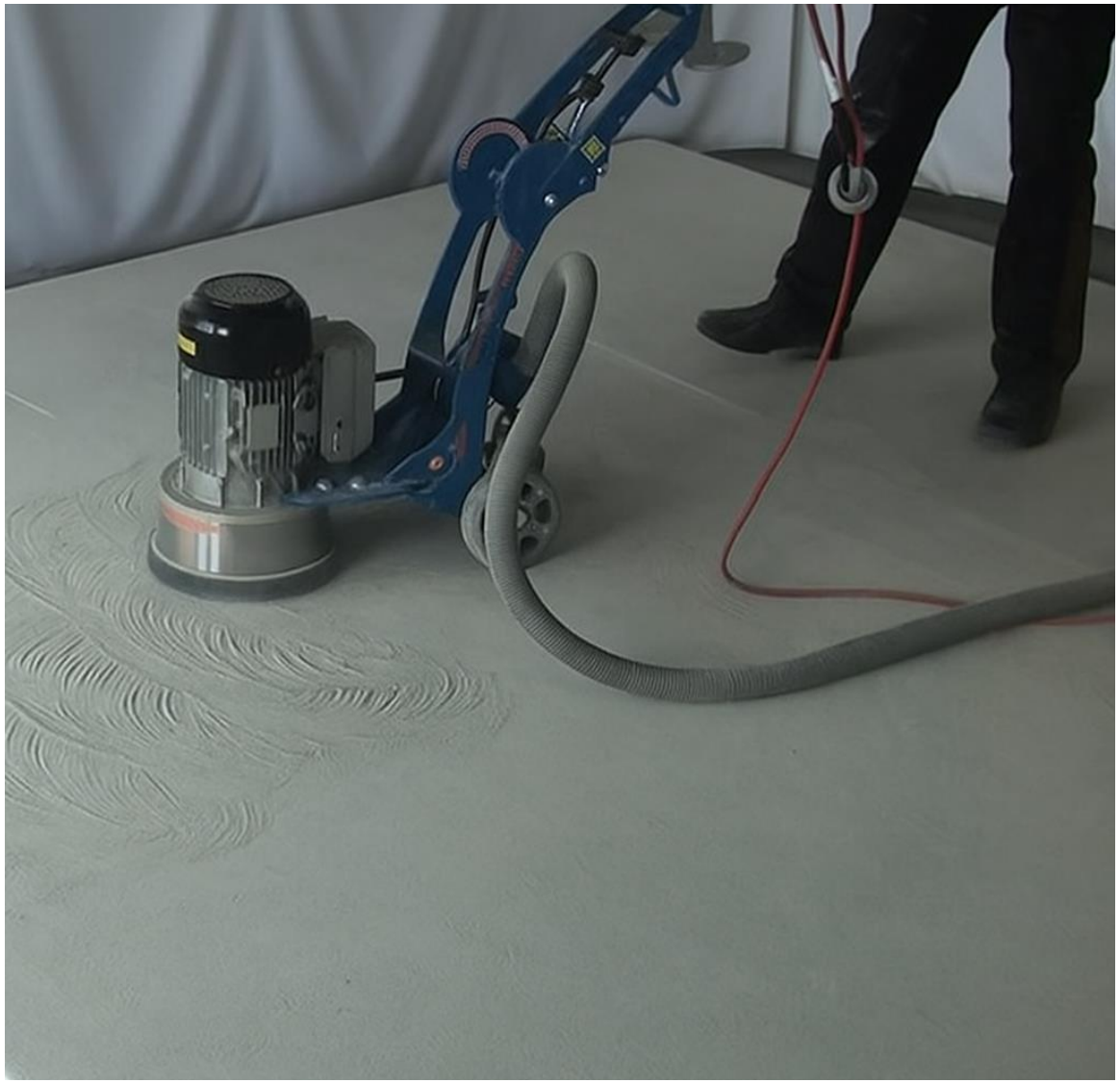
- Electronic assembly and testing facilities
- IT server rooms and data centers
- Telecommunications and control rooms
- Defense and aerospace electronic zones
- Pharmaceutical and precision instrument laboratories
- Powder coating and paint-mixing facilities

Step 1: Surface Preparation (1 of 2)

Proper substrate evaluation and preparation are essential to ensure conductivity continuity and coating adhesion.

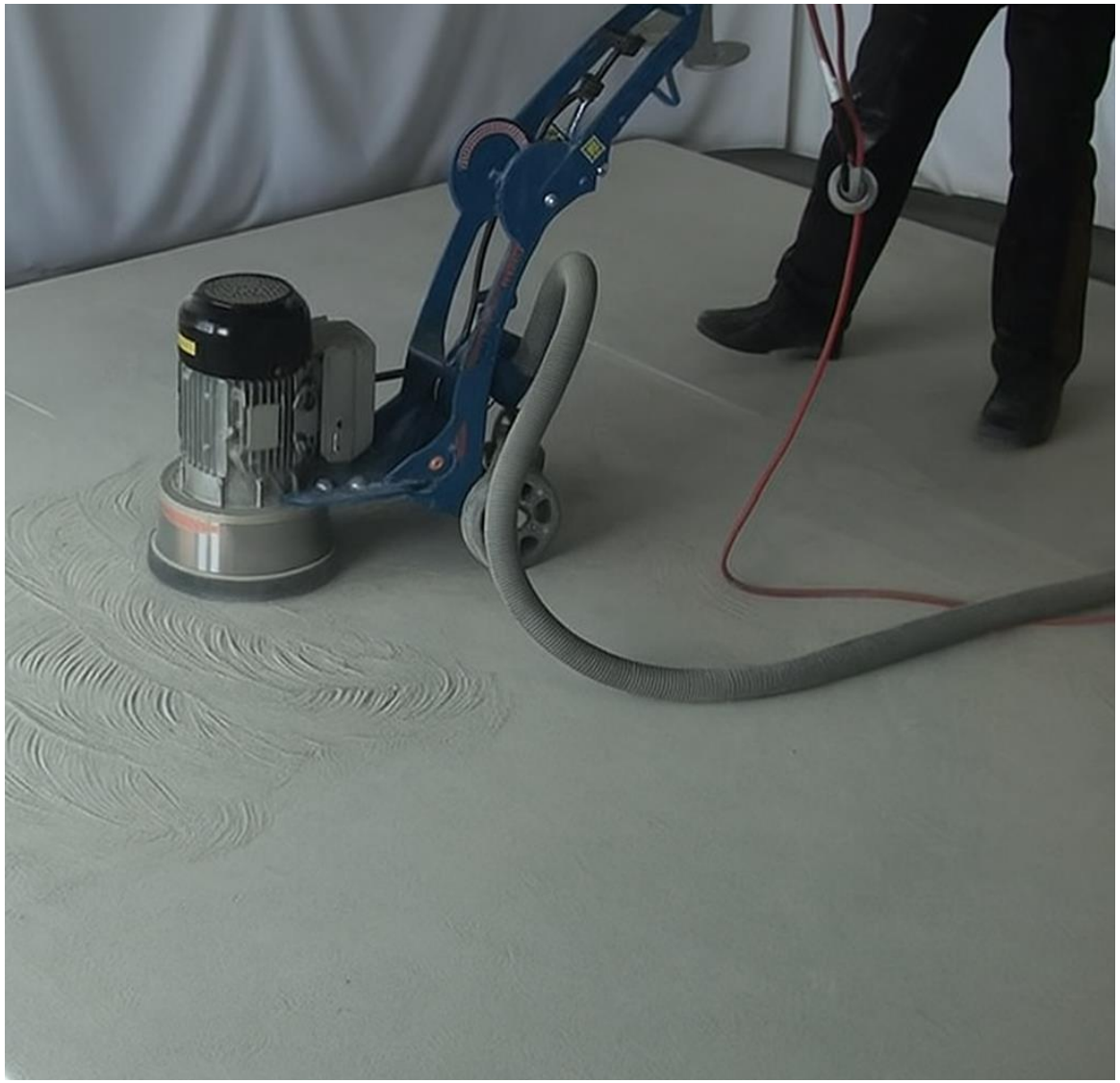
All necessary surface repairs, including crack filling or substrate restoration, must be completed prior to the application of any epoxy flooring materials.

- The **concrete strength** requirement must be determined by the consultant according to the operational load conditions.
- Check substrate integrity using both **destructive (core samples)** and **non-destructive (Schmidt Hammer)** testing methods.



Step 1: Surface Preparation (2 of 2)

- For **major repairs (≥ 12 mm)**, use **Ressi NSG 710**, a **high-strength, non-shrink cementitious repair mortar**.
- For **minor imperfections and leveling**, blend **Ressi EPO Primer LV** with **Ressichem's washed, graded, and completely dried (zero-moisture) silica sand** to create a high-density repair mortar.
- Mechanically prepare the substrate via **shot blasting or diamond grinding** to achieve a clean, oil-free, and dust-free surface.
- For older or used floors, ensure complete removal of oil or grease penetration before coating.



Step 2: Application of Ressi SLS Primer – 1 and Ressi SLS 610 (If Required)

Where leveling is needed before epoxy installation, apply **Ressi SLS Primer – 1**, a latex-based bonding primer, followed by **Ressi SLS 610**, a **self-leveling cementitious floor screed** to correct floor irregularities and achieve a uniform surface.

Allow at least **7–14 days for the screed to release moisture**, depending on ambient temperature and humidity, before proceeding with the epoxy application. Ensure that the **moisture level is below 5 %** using a concrete moisture meter.

Step 3: Application of Ressi EPO Primer LV

Apply **Ressi EPO Primer LV**, a **low-viscosity, solvent-free epoxy primer** designed to penetrate and seal the substrate, ensuring proper adhesion of subsequent conductive layers.

- Mix resin and hardener components as per datasheet ratios.
- Apply using a **trowel or epoxy squeegee** to achieve full coverage.
- Allow curing before the next layer application.

Step 4: Application of Ressi EPO Anti-Static

Apply **Ressi EPO Anti-Static**, a **conductive epoxy coating** formulated to provide consistent static dissipation and electrical grounding through its conductive matrix.

- Apply at a **minimum thickness of 500 microns** using a **notched trowel or epoxy squeegee**, followed by back-rolling to ensure a uniform finish.
- Integrate **conductive copper tape networks** connected to an approved **grounding point** as per site design.
- For enhanced aesthetics and protection, an **optional clear epoxy sealer** may be applied over the conductive layer, provided it does not interfere with static performance.
- Refer to **Ressichem Technical Datasheets (TDS)** for all mixing, curing, and application parameters.

System Summary Table

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Parameter	Description
System Name	Epoxy Flooring System for – Static Dissipative / Anti-Static Applications
Area Type	Specialized / High-Performance – Static-Controlled Environments
Traffic Exposure	Light to Medium
Primary Requirement	Controlled Static Dissipation
Primer (Optional)	Ressi SLS Primer – 1 (for SLS systems)
Leveling Layer (Optional)	Ressi SLS 610 (if required)
Epoxy Primer	Ressi EPO Primer LV
Conductive Layer	Ressi EPO Anti-Static (≥ 500 microns)
Silica Used	Washed, graded, and completely dried (zero-moisture) silica sand
Application Method	High-Build Trowel or Epoxy Squeegee
Finish Type	Smooth, Matte / Semi-Gloss Conductive Finish
Curing Time Before Use	48–72 Hours (Light Use) / 7 Days (Full Cure)
Key Benefits	Static Control, Durability, Seamless Surface, Safety Compliance

System Summary Diagram

A) Cementitious Surface: (Concrete slab or screed)

B) Cracks and surface damage

C) Crack Filler and Repairing Materials

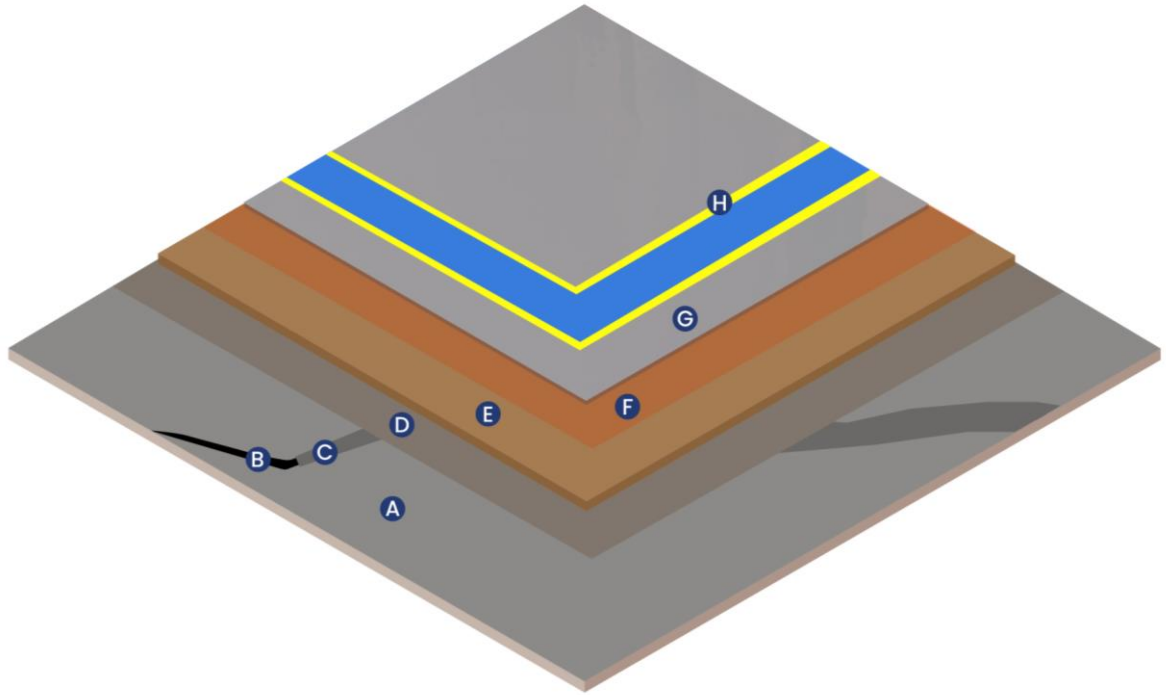
D) Ressi SLS Primer – 1

E) Ressi SLS 610

F) Ressi EPO Primer LV

G) Ressi EPO Anti-Static

H) Ressi EPO Anti-Static (Marking)



Thank You

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