

EPOXY FLOORING SYSTEM FOR LABORATORIES WITH LIGHT CHEMICAL USE



Introduction

Laboratories with light chemical exposure require flooring systems that provide **chemical resistance, hygiene, and mechanical strength** while maintaining a **smooth, easily cleanable finish**. Although the chemical exposure is moderate, regular contact with reagents, solvents, and cleaning agents demands a protective floor with long-term reliability and resistance.

The **Ressi EPO System – Chem Might** from Ressichem combines **reliable primers, self-levelling underlayment (if needed), and a high-performance chemically resistant epoxy topcoat**. This system ensures lasting durability, cleanability, and chemical protection ideal for controlled laboratory environments.

Recommended Use Cases

- Educational and institutional laboratories
- Pharmaceutical and analytical QC labs
- Light chemical handling rooms
- Research and development areas
- Diagnostic and product testing laboratories
- Cleanrooms and sample preparation zones

Step-Wise System Description

Step 1: Surface Preparation

A well-prepared substrate ensures strong adhesion and system longevity.

- Begin with a sound, levelled screed
- Mechanically grind or lightly shot blast the surface to remove laitance, dust, and contamination.
- Clean thoroughly to remove oil, grease, and other residues.
- Fill cracks and voids with an epoxy-based repair mortar. All damages should be repaired using suitable repairing materials. Ressichem has a wide variety of repairing materials available.
- Confirm that the substrate moisture content is below 5% before proceeding.

Step 2: Application of Ressi SLS Primer – 1 (if Required)

Where levelling is required, apply **Ressi SLS Primer – 1**, a latex-based primer that enhances adhesion between the substrate and the self-levelling compound.

- Stir thoroughly before use.
- Apply uniformly by roller, brush, or spray.
- Avoid puddling and allow to dry to a tack-free finish (approximately 2–4 hours).

Step 3: Application of Ressi SLS 610 Self-Levelling Screed (if Required)

If the substrate requires correction or levelling, apply **Ressi SLS 610**, a self-levelling cementitious screed.

- Mix with clean water per manufacturer's recommendations using a low-speed mixer.
- Pour and spread evenly using a gauge rake or trowel.
- Use a spiked roller to release entrapped air and achieve a smooth finish.
- **Ressi SLS 610 does not require curing**, but it must be allowed **7–14 days for moisture release** depending on ambient conditions.
- Proceed with epoxy application only once the **moisture content is verified below 5%**.

Step 4: Application of Ressi EPO Primer LV

Once the surface is fully dry and stabilized, apply **Ressi EPO Primer LV**, a low-viscosity, solvent-free epoxy primer that penetrates and seals the substrate for improved adhesion.

- Mix resin and hardener thoroughly according to the specified ratio.
- Apply uniformly using a roller or brush.
- Avoid puddles and ensure complete coverage.
- Allow the primer to cure overnight before applying the epoxy topcoat.

Step 5: Application of Ressi EPO Chem Might

The final coat consists of **Ressi EPO Chem Might**, a high-build, solvent-free epoxy coating designed to deliver **chemical resistance and surface durability** under light laboratory conditions.

- Mix both components thoroughly using a low-speed drill.
 - Apply evenly using a roller or squeegee, ensuring consistent coverage.
 - Apply in a single layer at a **minimum total thickness of 1000 microns**.
 - Allow **48–72 hours** before opening for mild traffic, depending on ambient temperature.
 - Allow a full cure of 7 days before subjecting the floor to chemical exposure or routine use.
- This results in a **seamless, dense, and chemical-resistant floor** capable of withstanding mild acids, alkalis, and solvents.

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System Advantages

- **Chemical Resistance:** Protects against mild acids, alkalis, and solvents.
- **Durability:** Resists abrasion and light mechanical stress.
- **Hygienic & Seamless:** Non-porous, easy to clean, and prevents microbial buildup.
- **Single-Coat Efficiency:** Achieves protection at ≥ 1000 microns.
- **Controlled Cure Schedule:** Ready for mild traffic in 48–72 hours; full cure in 7 days.
- **Professional Finish:** Smooth, semi-gloss appearance ideal for laboratories.

Maintenance Guidelines

- Clean regularly with neutral pH, non-abrasive detergents.
- Avoid strong acids or solvent cleaners.
- Promptly clean chemical spills.
- Inspect the surface periodically and recoat if required to maintain chemical protection.

Epoxy Flooring System for Laboratories with Light Chemical Use

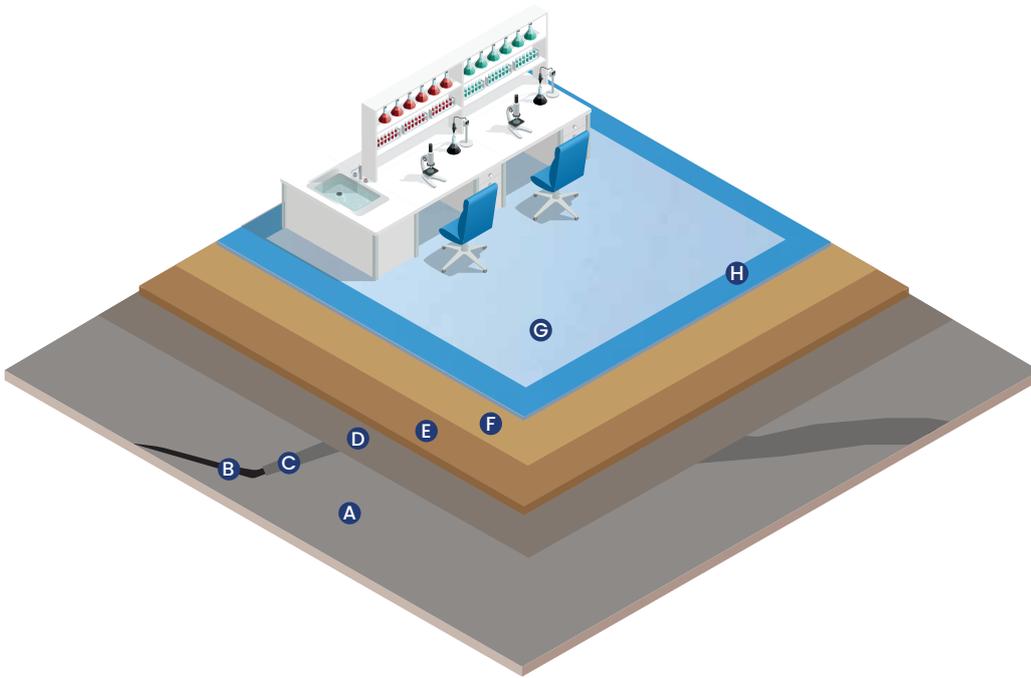
Parameter	Description
System Name	Epoxy Flooring system for Laboratories with light chemical use.
Area Type	Laboratories with Light Chemical Use
Traffic Exposure	Light to Medium Duty
Primary Requirements	Chemical Resistance, Hygiene, Durability
Optional Layers	Ressi SLS Primer – 1, Ressi SLS 610 (if required)
Primer	Ressi EPO Primer LV
Topcoat	Ressi EPO Chem Might
Total System Thickness	Minimum 1000 Microns (Single Layer)
Finish Type	Smooth, Semi-Gloss
Curing Time Before Use	48–72 Hours for Mild Traffic / 7 Days Full Cure
Key Benefits	Chemically Resistant, Durable, Hygienic, Seamless

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Conclusion

For laboratories with light chemical use, the Ressi EPO System – Chem Might offers a durable and hygienic flooring solution that balances chemical resistance and functionality. The system — Surface Preparation Ressi SLS Primer – 1 (if required) Ressi SLS 610 (if required) Ressi EPO Primer LV Ressi EPO Chem Might — delivers a smooth, chemical-resistant, and long-lasting epoxy floor suited to laboratory environments requiring reliability and cleanability.

System Summary



- A. Cementitious Surface: (Concrete slab or screed)
- B. Cracks and surface damage
- C. Crack Filler and Repairing Materials
- D. Ressi SLS Primer - 1 (Optional)
- E. Ressi SLS 610 (Optional)
- F. Ressi EPO Primer LV
- G. Ressi EPO Chem Might
- H. Ressi EPO Chem Might (Marking)