

Ressi EPO Mid Coat S – CR is a chemical resistant epoxy mid coat used to build up thickness of chemical resistant epoxy flooring systems. **Ressi EPO Mid Coat S – CR** is based on the standard sized Ressi-chem Aggregate sized used to build up thicknesses of epoxy systems from a minimum of 2mm up to 5mm. **Ressi EPO Mid Coat S – CR** it self is a chemical resistant grade made from specially formulated bisphenol-A Based Resins and Specially formulated Modified chemical resistant cycloaliphatic amine which is free from Nonyl phenol. **Ressi EPO Mid Coat S – CR** is a solvent free formulated product. **Ressi EPO Mid Coat S – CR** is also suitable for a variety of substrates such as wood, metal, fiber-glass and selected plastics.

ADVANTAGES

- ✓ **Exceptional Chemical Resistance:** Formulated with bisphenol-A based resins and modified aliphatic amine, ensuring high resistance to a wide range of chemicals.
- ✓ **Customizable Thickness:** Facilitates thickness build-up from 2mm to 5mm using standard-sized Ressi-chem aggregates, providing versatility in application for various flooring requirements.
- ✓ **Solvent-Free Composition:** Ensures low VOC emissions, making it an environmentally friendly and safer option for application in confined spaces.
- ✓ **Enhanced Durability:** Offers robust mechanical strength and long-lasting performance under harsh industrial conditions.
- ✓ **Nonyl Phenol-Free:** Free from harmful additives like Nonyl Phenol, ensuring compliance with health and safety regulations.
- ✓ **Seamless Application:** Easy-to-apply formulation designed for building up the thickness of epoxy flooring systems with consistent and smooth results.
- ✓ **Compatibility:** Designed to integrate seamlessly with other components of chemical-resistant epoxy flooring systems, ensuring uniform performance and durability.

AREAS OF APPLICATION

- ✓ **Industrial Manufacturing Plants:** Ideal for flooring subjected to heavy equipment, forklifts, and frequent mechanical impacts.
- ✓ **Warehouses and Distribution Centers:** Provides a robust, wear-resistant mid coat surface for high-traffic areas.
- ✓ **Automotive Workshops and Garages:** Resistant to oils, fuels, and chemicals typically found in automotive service environments.
- ✓ **Food and Beverage Facilities:** Suitable for areas requiring hygienic, durable, and seamless floors.
- ✓ **Chemical Processing Units:** Performs well in spaces exposed to mild chemical spills and corrosive agents.
- ✓ **Pharmaceutical Plants:** Ensures a smooth, non-dusting surface, reducing contamination risks.
- ✓ **Power Plants and Utility Areas:** Protects surfaces from mechanical and thermal stresses.

- ✓ **Public Spaces and Parking Garages:** Offers high durability for areas exposed to heavy vehicular traffic and pedestrian footfall.
- ✓ **Cold Storage Areas:** Performs well in environments with temperature fluctuations and low ambient temperatures.
- ✓ **Educational and Commercial Buildings:** Provides durable, easy-to-maintain surfaces in hallways, lobbies, and utility areas.

SURFACE PREPARATION

Surfaces should be free from grease, oil chemical, dust, laitance, loose concrete and should have minimum amounts of moisture. Appropriate surface preparation equipment such as shot blast, Scarified or grinder must be used to obtain a sound surface. Substrates which show any traces of oil must be degreased with a chemical degreaser prior to any surface preparation or grit blasting. Cracks, pinholes, potholes should be repaired using **Ressi EPO Crack Fill**. Uneven concrete should be levelled to produce flat surfaces as much as possible. New concrete floors should be at least 28 Days old prior to application and must not have moisture exceeding 2% using a standard moisture meter. Expansion, control and isolation joints should be carried through floors filled with suitable joint treatment. The concrete surface needs to be primed using an appropriate epoxy primer from the Ressichem Epoxy primer range.

PRIMING

Prepared surfaces should be primed using **Ressi EPO Primer** or any other suitable Primer recommended by Ressichem. The primer should be penetrated / coated onto the substrate using a still brush or roller and allowed to become tacky (10 – 20 mins before the application of **Ressi EPO Mid Coat S – CR**. The primer should be allowed to dry. If the primer has dried, additional coat of primer should be applied and allowed to become tacky.

MIXING

Stir the base and hardener component separately first. Add the Filler component into the base / Hardener material and stir it until the complete material is homogenous. A high-speed drill machine with high RPM levels can be used to homogenize both Part A (base / Resin) and Part C (Filler Material). Once Parts A and C are homogenized, part B should be added into the mix and homogenized accordingly. All Materials should be mixed for at least 3 to 7 minutes a low rpm (400 – 600 rpm) Speed until a uniform homogenized mix is achieved.

APPLICATION

Lay **Ressi EPO Mid Coat S – CR** over the prepared surface whilst the primer is still tacky. Spread out with a notched trowel to a uniform thickness between 2mm to 5mm. The minimum recommended thickness of **Ressi EPO Mid Coat S – CR** is 2mm. Level the material using appropriate trowels and tools to the desired level. A spiked roller should be used to achieve a uniform surface.

LIMITATION

At higher temperatures pot life will be reduced. For working on Low temperatures below 10°C, **Ressi EPO Mid Coat S – CR** may be placed over a hot water bath. The service temperature for the application of **Ressi EPO Mid Coat S – CR** is between 15°C and 35°C.

PACK SIZE

Ressi EPO Mid Coat S-CR is available in the following packag-

2.8 KG :	Part A 1 KG Part B 400g Part C 1.4 KG
14 KG :	Part A 5 KG Part B 2 KG Part C 7 KG
28 KG :	Part A 10 KG Part B 04 KG Part C 14 KG
56 KG :	Part A 20 KG Part B 08 KG Part C 28 KG

TECHNICAL TABLE

Property	Test Method	Result
Component	-	Three : Part A: Base Part B: Hardener Part C: Filler
Mixed form	-	Viscous liquid
Mix ratio (Part A : Part B : Part C)	Theoretical	100 : 40 : 140
Mix Density	ASTM D 1475	1.60 ± 0.5 g /cc
Pot life (300g mix) @ 25°C	-	40 – 60 minutes
Drying time	-	5 – 6 hours
Recoat time	-	10 – 24 hours (Depending upon nature of substrate)
Full Cure	-	7 Days
Coverage per kg material @ 2 mm thickness	-	3 – 4 SFT
Flexural Strength (MPa)	ASTM D 790	46.2 @ 7 Days
Compressive Strength (MPa)	ASTM D 695	79.8 @ 7 Days

*Note: At 40°C pot life will half so application should be planned accordingly.
Typical Results under Laboratory Conditions

CHEMICAL RESISTANCE CHART

Chemicals Solutions	Chemical Resistance
HCL (10%)	★★★
Sulphuric Acid (10%)	★★★
Acetic Acid (10%)	★★
Lactic Acid (20%)	★★
Formic Acid (20%)	NR
Phosphoric Acid (20%)	★★
Nitric Acid (30%)	★★
Caustic (20%)	★★★
Ammonia Solution (18%)	★★★
Hypochlorite (30%)	★★★
Hydrogen Peroxide (50%)	★★★
Ethanol	★
Methanol	★
IPA	★★★
MEK	★★
Xylene	★★★
Mineral Spirit	★★★
KEY ★ (Fair) ★★ (Good) ★★★ (Excellent) NR (not Recommended)	

