RESSI EPO MID COAT S - GP

General Purpose Standard aggregate based epoxy mid coat

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Ressi EPO Mid Coat S – GP is a general-purpose high strength and high impact resistant mid coat epoxy. This Epoxy system is highly suitable to build up epoxy thickness of flooring systems where a low-cost system is required. This solvent free epoxy system is based on a modified bisphenol A Based Epoxy system and a Phenelkamine based hardener. **Ressi EPO Mid Coat S – GP** comprises of special Silica based aggregates which enhance the generic properties of mix epoxy systems. **Ressi EPO Mid Coat S – GP** is also suitable for a variety of materials such as metal, wood, ceramic, concrete, textile, glass, leather etc.

ADVANTAGES

- **High Strength and Durability**: The Ressi EPO Mid Coat S – GP provides exceptional compressive and tensile strength, making it highly durable under heavy loads and mechanical stress.
- **Impact Resistance**: This mid coat system is designed to withstand high impact, making it suitable for industrial environments subject to heavy machinery and equipment usage.
- **Cost-Effective Solution**: The system is an economical choice for building up epoxy thickness in flooring systems, offering reliable performance at a lower cost compared to premium alternatives.
- **Solvent-Free Composition**: Being solvent-free, it ensures minimal volatile organic compound (VOC) emissions, contributing to a safer and more environmentally friendly application process.
- **Enhanced Adhesion and Cohesion**: The incorporation of modified bisphenol A-based epoxy and phenalkamine-based hardener ensures superior bonding strength and cohesive properties, enhancing the longevity of the flooring system.
- **Improved Chemical Resistance:** The system offers good resistance to a range of chemicals, including oils, fuels, and mild solvents, making it suitable for various industrial applications.
- **Silica-Based Aggregate Enhancement**: The inclusion of special silica-based aggregates improves the overall mechanical properties, such as wear resistance and hardness, further reinforcing the system.
- **Versatility in Applications:** Ressi EPO Mid Coat S – GP can be used in various industrial and commercial flooring systems, providing flexibility in usage.
- **Uniform Thickness Build-Up**: The system allows for consistent thickness build-up, ensuring a uniform surface profile that improves the performance and lifespan of the topcoat layers.
- **Fast Curing and Application Efficiency**: The phenalkamine-based hardener accelerates the curing process, reducing downtime and making it an efficient choice for projects with time constraints.

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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 mi 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 atleast 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 – GP**. The primer should be allowed to dry. If the primer has dried, additional coat of primer should be applied and allowed to become tacky.

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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 – GP** 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 – GP** 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 – GP** may be placed over a hot water bath. The service temperature for the application of **Ressi EPO Mid Coat S – GP** is between 15°C and 35°C.

PACK SIZE

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

2.96 KG :	Part A 1 KG Part B 480g Part C 1.48
14.8 KG :	Part A 5 KG Part B 2.4 KG Part C 7.4 KG
29.6 KG :	Part A 10 KG Part B 4.8 KG Part C 14.8 KG
59.2 KG :	Part A 20 KG Part B 9.6 KG Part C 29.6 KG

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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 : 48 : 148
Mix Density	ASTM D 1475	1.56 ± 0.05 g /cc
Pot life (300g mix) @ 25°C	-	60 – 90 minutes
Drying time	-	6 – 7 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	47.1 @ 7 Days
Compressive Strength (MPa)	ASTM D 695	75.4 @ 7 Days

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

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