Zepoxy EPO IRON PRIMER

Low viscosity, Zinc-based Epoxy Primer for Iron-based substrates

RESSICHEM®
adding life and value to your property

Ressi EPO Iron primer is a red oxide-based zinc rich epoxy primer with excellent adhesion on shot blasted iron or steel substrates. Ressi EPO Iron Primer has high performance corrosion protection with air and force dry capabilities. Ressi EPO Iron Primer is chromate and lead free. **Ressi EPO Iron primer** must be recoated again with either with the same or another primer or with an appropriate topcoat like **Ressi EPO Iron coat** or **Ressi EPO Iron coat CR** or any other appropriate material recommended by Ressichem or the consultant.

ADVANTAGES

- **Superior Adhesion**: Provides excellent bonding to shot-blasted iron or steel surfaces, ensuring long-lasting performance.
- **Enhanced Corrosion Protection**: The zinc-rich formulation offers high-performance protection against corrosion, even in harsh environments.
- **Compatibility with Topcoats:** Easily recoatable with the same primer or with suitable topcoats like Ressi EPO Iron Coat or Ressi EPO Iron Coat CR, enhancing the durability and finish of the coating system.
- **Versatile Drying Options:** Features both air-drying and force-drying capabilities, providing flexibility in application processes.
- **Low Viscosity Formula**: The low viscosity allows for smoother application, ensuring better surface coverage and penetration into the substrate.
- **Environmentally Safer Composition**: Free from chromates and lead, making it a safer and eco-friendlier option for industrial use.
- **High Chemical and Abrasion Resistance**: Offers excellent resistance to wear, abrasion, and chemical exposure, making it ideal for demanding applications.

AREAS OF APPLICATION

Industrial Structures:
- ✔ Factories, refineries, and chemical plants
- ✔ Steel beams, columns, and support structures

Infrastructure Projects:
- ✔ Bridges and flyovers
- ✔ Water treatment plants and sewage systems
- ✔ Transmission towers and pipelines

Marine and Offshore Equipment:
- ✔ Ships, barges, and offshore platforms
- ✔ Shipyards and harbor structures exposed to saline environments

Transportation and Automotive:
- ✔ Heavy-duty vehicles, trailers, and truck frames
- ✔ Railcars and railway infrastructure

Power and Energy Facilities:
- ✔ Oil and gas pipelines and equipment
- ✔ Power plant steel structures
- ✔ Wind turbine towers

Storage Tanks and Silos:
- ✔ Internal and external surfaces of fuel and chemical storage tanks
- ✔ Silos for grains, cement, and other industrial materials

Cranes and Heavy Machinery:
- ✔ Cranes, conveyors, and lifting equipment
- ✔ Construction and agricultural machinery

Metal Fabrication and Repairs:
- ✔ Welded assemblies, metal enclosures, and frameworks
- ✔ Restoration of corroded metal structures

SURFACE PREPARATION

Proper surface preparation is essential to ensure optimal adhesion and performance of the **Ressi EPO Iron Primer**. Below is the recommended procedure:

Remove contaminants: Clean the surface to remove oil, grease, dirt, salts, and other contaminants using an appropriate degreaser or solvent cleaner.

Wash thoroughly: Rinse the surface with clean water and allow it to dry completely.

Rust and Scale Removal: Use abrasive blasting (shot blasting or grit blasting) to remove rust, mill scale, and old paint.

Surface Profile: Achieve a surface profile of 50–75 microns (2–3 mils) using abrasive blasting to create a rough surface for better mechanical bonding.

Inspection and Dust Removal: After blasting, inspect the surface for any remaining imperfections or loose material. Remove dust and abrasive residue using clean, dry air or a vacuum to ensure a clean surface.

Environmental Conditions: Ensure that the ambient temperature and surface temperature are within the recommended range (typically 10°C to 35°C). The surface must be completely dry before primer application. Relative humidity should not exceed 85% during application to avoid condensation on the surface.

Pre-Coating Check: Apply a small test patch of **Ressi EPO Iron Primer** to ensure compatibility and adhesion.Address any adhesion issues before proceeding with the full application.
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MIXING

Ressi EPO Iron primer is supplied in two parts. It is recommended to premix Part A seperately prior to adding part B into the resin mix. A slow speed drill machine attached with a paddle should be used to mix both parts. Usually the resin and hardener are mixed in small quantities to extend the working time and prevent high exothermic reaction and pre-gelling.

APPLICATION

To ensure good adhesion between the substrates, it is recommended to apply rich layer of homogenous blend uniformly on the surface and fill the dents and pinholes. Adequate cuing normally takes place within 24 hours.

LIMITATIONS

At higher temperatures pot life will be reduced. It is recommended to keep the application temperature of **Ressi EPO Iron primer** to below 35°C.

PACK SIZE

Ressi EPO Iron Primer is available in the following packaging.

1.16 KG Pack :	Part A 1 KG Part B 160g
11.6 KG Pack :	Part A 10 KG Part B 1.6 KG
23.2 KG Pack :	Part A 20 KG Part B 3.2 KG

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TECHNICAL TABLE

Property	Test Method	Result
Appearance Part A	Visual	Low Viscosity, red liquid
Appearance Part B	Visual	Low Viscosity, Yellow to Brown Liquid
Mix ratio (Part A: Part B)	Theoretical	100 : 16
Mix viscosity @ 25°C	ASTM D 2196	250 - 500 cps
Mix Density	-	1.2 g /cc
Pot life (300g mix) @ 25°C	-	>1 hour
Solid Content	-	65 – 67 %
Hardening time	-	24 hours
Full Cure	-	7 Days
Coverage per kg material @ 200 micron thickness	-	80 – 85 SFT

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

HEALTH & SAFETY

Please dispose off containers of the materials as per local laws, rules and regulations. Usage of gloves, safety masks and other safety apparel as per health and safety laws should be done. Especially wear a respirator when sanding cured resin, and if you use alcohol inks DO NOT use a flame to remove bubbles, as alcohol is flammable. For further assistance, please refer to the MSDS of the product for further health and safety information.

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NOTE:

If printed packaging not available, neutral packaging with label. Lot number and manufacturing date to be stamped at the back of each packaging.

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