RESSI EPO PRIMER WCR

Water and Chemical Resisant Epoxy Primer

RESSICHEM®
adding life and value to your property

Ressi EPO Primer WCR is a water and chemical resistant solvent free epoxy primer specially designed for concrete floor substrates. This Specially formulated primer is based on specially formulated Bisphenol-A based Resins and special Phenalkamine based curing agents. **Ressi EPO Primer WCR** is also suited for many other substrates such as metal, wood, fiberglass etc. **Ressi EPO Primer WCR** are based on high solids and have the capability to resist different chemicals of high corrosive nature. Typical areas of applications include car parks, factory floors, food industry, kitchens, aircraft hangers, hospitals, pharmaceutical plants, textile tanneries and plants, warehouses etc. **Ressi EPO Primer WCR** is also suitable for a variety of materials such as metal, wood, ceramic, concrete, textile, glass, leather etc.

ADVANTAGES

- **Chemical Resistance:** Exceptional resistance to acids, alkalis, solvents, and oils. Suitable for environments exposed to harsh chemicals, including industrial floors, chemical plants, and wastewater facilities.
- **Solvent-Free Formula**: 100% solids with zero volatile organic compounds (VOC). Environmentally friendly, with no harmful emissions or solvent-related odor. Non-flammable, reducing on-site fire risks.
- **Excellent Adhesion**: Forms a robust bond with concrete, steel, and other substrates. Prevents delamination under harsh chemical and mechanical stresses. Ideal primer for further coatings, including top layers for epoxy, PU, or hybrid systems.
- **High Durability**: Resistant to abrasion, impact, and mechanical wear. Provides a long-lasting protective barrier against corrosion and surface degradation.
- **Moisture Tolerance**: Can be applied to damp substrates without loss of performance. Effective in environments with high humidity or areas prone to moisture ingress.
- **Ease of Application**: High-build formula allows for single-coat application. Self-leveling properties create a smooth and uniform surface(1000 microns or above). Can be applied by brush, roller, or airless spray.
- **Temperature Resistance**: Maintains performance in both high and low-temperature environments. Suitable for surfaces exposed to thermal cycling and hot fluids.
- **Fast Cure Time**: Accelerated curing in ambient conditions. Reduces downtime and speeds up project completion.

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TYPICAL APPLICATION AREAS

- ✔ Industrial flooring systems
- ✔ Chemical storage tanks and containment areas
- ✔ Marine and offshore structures
- ✔ Wastewater treatment plants
- ✔ Pharmaceutical and food processing facilities

SURFACE PREPARATION AND MIXING

Surface should be free from grease, oil chemical contamination, dust, laitance and loose concrete. This can be achieved by scabbing or light brush hammering to provide a sound substrate. **Ressi EPO primer WCR** is supplied with premeasured two-part containers. Mix the premeasured quantities as per the ratio with a high-speed drill mixer fitted with a paddle. The material is to be mixed thoroughly until homogeneous.

APPLICATION

Apply the material with a suitable squeegee, stiff nylon brush or roller working the **Ressi EPO Primer WCR** into the substrate to ensure total absorption into the pinholes and voids. Spray applications are also possible. Airless spray will provide a faster rate of application.

LIMITATIONS

When temperatures exceed 35°C, working hours will be reduced significantly. During application in cold weather correct conditioning is essential. Application should be halted if the ambient or substrate temperature is likely to fall below 10°C.

Prior to the application of mass areas, it is essential to check the floor for moisture content. **Ressi EPO Primer WCR** should form a tack free dry epoxy film over the concrete substrate where moisture is usually under 10% to 15%. However ambient humidity, extreme temperature may result in the epoxy material not to cure appropriately.

It is recommended to have a chemical resistivity test of the specified chemical exposure prior to application of the material on site incase the exposed chemicals are not mentioned in the technical datasheet.

SHELF LIFE

12 Months from the date of manufacture when stored under warehouse conditions in original unopened packaging. Extreme temperature / Humidity may reduce shelf life.

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HEALTH & SAFETY

The packed material of **Ressi EPO Primer WCR** is regarded as non-hazardous for transportation. Once opened extreme temperatures may cause the material to be flammable. Do not reuse bags, containers, or packaging materials. It is recommended to dispose of the packaging as per local rules and regulations. Gloves and suitable masks can be worn during application. Please refer to MSDS of the product for further health and safety information.

PACK SIZE

Ressi EPO Primer WCR is available in the following packaging.

1.8 KG Pack :	Part A 1 KG Part B 800g
18 KG Pack :	Part A 10 KG Part B 08 KG
54 KG Pack :	Part A 30 KG Part B 24 KG

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TECHNICAL TABLE

Property	Test Method	Result
Appearance Part A	Visual	Clear colorless to yellow liquid
Appearance Part B	Visual	red to brown liquid
Mix ratio (Part A: Part B)	Theoretical	100 : 80
Mix viscosity @ 25°C	ASTM D 2196	1500 – 3000
Mix Density	ASTM D 1475	1.052 g /cc
Pot life (300g mix) @ 25°C	-	60 - 90 minutes
Gel Time	-	6 hours
Tack Free Time	-	11 hours
Over coat time	-	12 – 24 hours (Depending upon nature of substrate)
Coverage per kg material @ 200 micron thickness	-	50 - 55 SFT
Compressive Ultimate Strength (MPa)	ASTM D790	85.5 @ 7 Days
Compressive Yield Strength (MPa)	ASTM D695	74.2 @ 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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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)

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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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