

Ressi EPO Shield – Marine Mastic

High-Performance Epoxy Topcoat for C5 High Corrosivity Environments



Ressi EPO Shield – Marine Mastic is a high-performance, two-component epoxy coating designed for steel substrates protected with anticorrosive primers in C5 high corrosivity environments as defined in ISO 12944. It provides superior chemical, UV, and weather resistance, ensuring enhanced durability and long-term protection of steel structures exposed to extremely aggressive industrial, coastal, or offshore conditions.

This topcoat is formulated with advanced pigments and resins to provide a hard, smooth, and chemically resistant finish, maintaining aesthetic appeal while protecting against rust, humidity, salinity, and industrial pollution.

TYPICAL APPLICATION

- ✓ Offshore and coastal steel structures exposed to sea spray and salt-laden air
- ✓ Chemical processing plants and highly corrosive industrial environments
- ✓ Storage tanks, pipelines, and pressure vessels in aggressive conditions
- ✓ Power plants, refineries, and extreme weather installations
- ✓ Heavy machinery and industrial equipment requiring maximum corrosion protection
- ✓ General fabrication and maintenance coatings in C5 environments

ADVANTAGES

- ✓ ISO 12944 C5 compliant for very high corrosivity conditions
- ✓ Excellent adhesion over epoxy primers designed for C5 environments
- ✓ Maximum resistance to humidity, salinity, industrial pollution, and chemicals
- ✓ Smooth, durable, and aesthetically appealing finish
- ✓ Tough, impact- and abrasion-resistant film
- ✓ Suitable for brush, roller, or spray application

SURFACE PREPARATION AND MIXING

- ✓ Apply only over fully cured epoxy primer suitable for C5 environments (minimum tack-free time: 4-5 hours, full cure: 7 days).
- ✓ Ensure primer surface is clean, dry, and free from dust, grease, or contaminants.
- ✓ Light sanding is recommended for glossy or aged primer surfaces to improve adhesion.

MIXING

Ressi EPO Shield – Marine Mastic is supplied in pre-measured two-component kits (Base and Hardener).

1. Pour the entire contents of the Hardener into the Base.
2. Mix thoroughly using a low-speed mechanical mixer (300–400 rpm) until fully homogeneous.
3. Avoid entrapping air during mixing.

APPLICATION

- ✓ Apply by airless spray, conventional spray, brush, or roller.
 - ✓ Ensure uniform coverage and recommended dry film thickness (DFT).
 - ✓ Recommended DFT per coat: 70–80 microns
 - ✓ Number of coats: 2–3 depending on exposure conditions
- Overcoating:
- Minimum: 8 hours
 - Maximum: 48 hours (or lightly sand before recoating if exceeded)

COVERAGE

Approximately 70–80 sq. ft. per kg per coat @ 80–100 microns, Theoretical coverage values are provided for reference only; actual material consumption may vary depending on surface profile, porosity, and application conditions.

LIMITATIONS

When temperatures exceed 35°C working times 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.

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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TECHNICAL PROPERTIES

Appearance	Opaque Liquid
Color	Available in Different Color (Please refer to Shade Card)
Viscosity (Part A)	1000 – 2000
Viscosity (Part B)	150 – 500
Mix Ratio (Part A: Part B)	100 : 25
Mix Viscosity @ 25°C / cPs	400 – 600
Mix Density /g / cc	1.09
Working time	90 – 120 minutes
Tack Free Time	4 – 5 Hours
Over coat time	8 Hours – 12 Hours (Depending upon nature of substrate)
Full Cure	7 days
Gloss	100 – 120 (High)
Adhesion Test (ASTM D 3359)	5B (Pass)
Pencil Hardness (ASTM D 3363)	6H (Pass)
Mandrel Test (ASTM D 522)	12mm (Pass)

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PACK SIZE

Ressi EPO Shield – Marine Mastic is available in the following pack sizes:

1 KG: Part A 800g
Part B 200g

5 KG: Part A 4 KG
Part B 1 KG

20 KG: Part A 16 KG
Part B 4 KG

HEALTH AND SAFETY

The packed material of **Ressi EPO Shield – Marine Mastic** is regarded as non-hazardous for transportation. Once opened extreme temperatures may cause the material to be flammable. Do not re use bags, containers, and packaging materials. It is recommended to dispose 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.