

WANARMOR® EF272

Phenolic Epoxy Paint

Product Description

WANARMOR® EF272 is a high-performance two-component phenolic epoxy coating that combines the strong adhesion of epoxy resin with the chemical resistance of phenolic resin. It is specifically designed for high-temperature and highly corrosive environments. This product offers outstanding high-temperature resistance and chemical corrosion resistance, providing long-lasting protection for equipment operating under severe conditions.

Product Characteristics

Excellent high-temperature resistance, chemical resistance, solvent resistance, and acid resistance. Capable of thick-film application with outstanding mechanical properties.

Recommended Uses

Widely applicable in chemical, energy, and shipbuilding industries, such as high-temperature pipelines, storage tanks, and reactors. In marine engineering, it provides corrosion protection for high-humidity and high-salt-fog areas like ballast tanks and engine rooms. It is also suitable for demanding industrial environments including refineries, electroplating workshops, and wastewater treatment facilities.

Technical Specifications

Physical Parameters

| | |
|----------------------------|------------------------------------|
| Color | Gray, or as per user requirements |
| Gloss | Flat |
| Specific Gravity | Approx. 1.7 kg/L |
| Solids By Volume | 67±2% |
| Theoretical Spreading Rate | 6.7 m ² /L, DFT: 100 μm |
| Flash Point | 26°C |
| VOC | 315 g/L |

Surface Preparation

Application Conditions: Substrate temperature must be at least 3 °C above dew point, with relative air humidity not exceeding 85%.

New Projects (New Steel): Surfaces must be free of oil, contaminants, and impurities. Sandblasting must achieve ISO 8501-1:2007 Sa 2½ grade, with surface roughness meeting ISO 8503-2 Medium (G) standard.

Repair Projects: Remove loose contaminants such as oil from the surface. Sandblasting to Sa 2½ grade or manual cleaning to St 3 is recommended. Requirements may be appropriately relaxed for localized areas that are difficult to treat.

Application Guidance

Application Method

Airless spraying, brushing, rolling.

Mixing Ratio

Mass Ratio: 23.3 (Base): 1.7 (Hardener)

Pot Life: 3 hours at 20°C

Hardener

CEF2720

Thinner

WANARMOR®TH003

Cleaning Agent : WANARMOR®TH003

Film Thickness

| Film Thickness | |
|----------------|--------|
| Wet Film | 150 µm |
| Dry Film | 100 µm |

Drying Time

| Surface Temperature | 20°C |
|---------------------|-----------|
| Surface Dry | 3 hours |
| Hard Dry | 6.5 hours |
| Fully Cured | 7 days |

DFT: 100 µm

Overcoating Interval

| Product Name | 10°C | 20°C | 30°C | 40°C |
|----------------------|---------|----------|----------|---------|
| Phenolic Epoxy Paint | Lowest | 25 hours | 16 hours | 8 hours |
| EF272 | Highest | 47 days | 21 days | 10 days |

Ambient Temperature

10°C~40°C. Avoid application when relative humidity exceeds 85%.

Surface Temperature

Above the dew point by 3°C or more.

Recommended Method

| Tools | Application Parameters |
|---------------|-----------------------------|
| Airless Spray | Nozzle Pressure: 20 MPa |
| | Nozzle Size: 0.43 – 0.53 mm |

WANARMOR® EF272 can be applied using airless spraying, roller application, or conventional spraying.

Mixing and Thinning

WANARMOR® EF272 is a two-component product with a precise mix ratio. First, stir the Base until uniform and free of lumps for no more than 2 minutes. Then slowly add the hardener and stir for 3 minutes. Use a variable-speed power mixer. Avoid overmixing, as this accelerates curing and reduces product lifespan. High temperatures shorten the mixture's pot life, while low temperatures extend it. If necessary for application conditions, add a small amount of thinner (5% or less), subject to local regulations regarding volatile organic compounds (VOCs) and air quality.

Ventilation

For the safety of construction personnel and the proper performance of this product, all areas of the construction site must be well ventilated.

Packaging and Storage

Packaging

Two-component, 25 kg combination packaging.

Storage

Products must be stored in accordance with national regulations. Keep in a cool, well-ventilated area away from heat and ignition. Containers must be kept tightly closed.

Shelf life

1 year

Safety Precautions

Warning

May cause eye and skin irritation. Vapors may cause respiratory irritation in sensitive individuals. May cause skin sensitization. Avoid breathing vapors. Avoid contact with eyes and skin. Use eye, ear, and skin protection, and wear an appropriate respirator to avoid potential respiratory irritation. After use, thoroughly wash skin with water. If discomfort occurs, consult a physician. Wash clothing before reuse. If breathing has stopped, perform artificial respiration, preferably mouth-to-mouth, and seek medical attention. Burns: Exothermic reactions may cause product to become excessively hot. Handle mixtures with caution. Wear gloves. First Aid: If product contacts eyes, immediately flush with water for at least 15 minutes. Remove contaminated clothing and shoes. Wash exposed skin with soap.

Before and during use, observe all safety labels on the packaging. Consult the Safety Data Sheet and comply with relevant national or local government safety regulations.

Statement

The information listed in this document is reliable. Each value provided is calculated as theoretical data based on the product formulation. Upon request, our company can disclose the internal standard measurement methods used to determine any of the above data. Since usage conditions are beyond the manufacturer's control, this information is provided without warranty. The product is intended for professional use only. For any inquiries, please contact our company.

Our Technical Support and Customer Service Center is available to provide consultation and application technical services regarding the product. We welcome your inquiries via mail or phone. National Customer Service Hotline: 400-059-1116 ext. 3.