

WANARMOR®EP146

Epoxy Primer

Product Description

WANARMOR®EP146 Epoxy Primer is a two-component epoxy primer designed for construction machinery. It offers strong corrosion resistance and high adhesion, providing perfect base protection.

Product Characteristics

Exceptional rust prevention and salt spray resistance, excellent mechanical adhesion, good thick-film application properties, compatible with common topcoats, moderate application tolerance, suitable for low surface preparation, meets environmental standards.

Recommended Uses

Suitable for metal structural components of various construction machinery such as excavators, loaders, cranes, and bulldozers. Provides long-lasting protection for critical load-bearing and corrosion-prone areas including undercarriages, frames, and booms. Delivers durable defense in extreme operating conditions like field operations, mining sites, and ports. Serves as a primer layer for new equipment manufacturing and refurbishment of existing machinery.

Technical Specifications

Physical Parameters

Color	Gray
Gloss	Flat
Specific Gravity	Approx. 1.5 kg/L
Solids By Volume	55±2%
Theoretical Spreading Rate	9.2 m ² /L, DFT 60 μm
Flash Point	35°C
VOC	380 g/L

Surface Preparation

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

Clean and Dry: The substrate must be thoroughly cleaned of oil, grease, dust, and soluble salts (e.g., chloride

ions, sulfates).

Rust Removal Grade: Steel surfaces typically require Sa 2.5 (ISO 8501-1) or St 3 (ISO 8501-1) grade, i.e., near-white blast cleaning or thorough power tool removal of all scale, rust, old coatings, and contaminants, allowing only minimal firmly adhering residues.

Roughness: After blast cleaning, an appropriate surface roughness of 30-75 microns (Ry5) must be achieved to enhance mechanical interlocking and adhesion.

Application Guidance

Application Method

Airless spraying, brushing, rolling.

Mixing Ratio

Mass Ratio: 6(Base): 1 (Hardener)

Pot Life: 4 hours at 20 °C

Hardener

CEP1460

Thinner

WANARMOR®TH003

Cleaning Agent: WANARMOR®TH003

Film Thickness

Film Thickness	
Wet Film	110µm
Dry Film	60µm

Drying time

Surface Temperature	20°C
Surface Dry	2 h
Hard Dry	5 h
Fully Cured	7 days
DFT 30 µm	

Overcoating Interval

Product Name		0°C	10°C	20°C	30°C
Epoxy Primer	Lowest	14 h	9 h	3 h	2 h
EP146	Highest	90 days	21 days	21 days	21 days

Ambient Temperature

15°C to 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: 17.5 MPa
	Nozzle Size: 0.43 – 0.53 mm

WANEKO®EP146 can be applied using airless spraying, roller application, or conventional spraying.

Mixing and Thinning

WANARMOR®EP146 is a two-component product with a precise mix ratio. First, stir the Base until uniform and free of lumps for no longer 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 shelf life. High temperatures shorten the mixture's pot life, while low temperatures extend it. A small amount of thinner may be added as needed for application conditions, subject to local regulations regarding volatile organic compounds (VOCs) and air quality.

Ventilation

Ensure adequate ventilation throughout the work area for operator safety and proper product performance.

Packaging and Storage

Packaging

Two-component, 28 kg combination package.

Storage

Product storage must comply with national regulations. Store 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.