

CREOD Coating



Product Description

CREOD is a revolutionary anti-corrosion coating launched by PodLee (USA) in 2017, developed over 2.5 years. It integrates rust removal and corrosion protection, eliminating the need for traditional acid pickling processes.

CREOD utilizes specially designed alcohol-aluminum-based active molecules that react with rust, converting it into a dense epoxy-metal composite protective film on the substrate surface. This achieves simultaneous rust removal and corrosion protection.

Compared to traditional processes (acid pickling → residue cleaning → coating), CREOD offers significant advantages including rust-tolerant application, high permeability, complete rust removal, no acidic residue, superior corrosion resistance, excellent adhesion, compatibility with topcoats. CREOD is an ideal replacement for conventional methods.

Intended Uses

Rusty metal parts in high-humidity, high-salt environments (e.g., ship hulls, decks, offshore platforms).

Equipment, pipelines, and structures in petrochemical, power, and metallurgical industries.

Large steel structures such as bridges, steel frames, and towers.

Advantages

Rust-tolerant application – Reduces construction costs and safety risks.

High permeability – Suitable for complex structures.

Acid-free residue – Compatible with various topcoats.

Typical Characteristics

Name		Test Data	Testing Standard
Cured Density (g/cc)		1.04	–
Solid Content (%)		73 – 77	ASTM D3960
Pencil Hardness (H)		2	ASTM D3363
Water Resistance (1000h)		Pass	ASTM D2247
Adhesion (psi/MPa)	Rusted Steel	435 (3)	ASTM D4541
Chemical Resistance (90 Days)	HCl (10%)	Pass	ASTM G20
	NaOH (10%)	Pass	
	NaCl (10%)	Pass	
Salt Spray Test (h)		1000	ASTM B117
Service Temperature (°F/°C)		-22 (-30) – 194 (90)	–

Package

4 KG/Kit.

Surface Preparation

Proper surface preparation is critical for optimal performance:

Degrease and desalinate surfaces. Rinse salt residues with freshwater in marine environments.

Remove contaminants and manually derust using wire brushes or sandpaper (SA1 grade).

Wipe surfaces clean with a dry cloth to remove moisture and loose rust.

Mixing

Ensure ambient temperature is 50 – 104°F (10 – 40 °C).

Mixing ratio: 3:1 (By Weight).

Weigh components accurately and stir mechanically for 3 – 5 minutes.

Application

Apply using a brush or roller.

Single-coat thickness: 40 µm.

Allow ≥ 18 hours between coats.

Works with epoxy, polyurethane, and fluorocarbon topcoats.

Coverage

Based on a 40 µm thickness: 1 kg kit will cover 15 m² (161 ft²).

Pot Life After Mixing

50°F (10°C) – 6 h, 70°F (25°C) – 4 h, 104°F (40°C) – 2 h.

Curing Schedule

Temperature	50°F (10°C)	70°F (25°C)	104°F (40°C)
Surface Dry (h)	24	18	12
Complete Curing (h)	72	48	36

Clean Up

Clean tools immediately after use with solvents (acetone, xylene, alcohol, etc.).

Storage

Store between 10 °C (50 °F) and 32 °C (90 °F).

Unopened product shelf life: 1 year.

Safety

Before using any products, review the appropriate Material Safety Data Sheet (MSDS) or Safety Sheet for your area. Follow standard confined space entry and work procedures, if appropriate.