

DERAYAN Coating



Product Description

DERAYAN is an advanced modified epoxy coating developed by PodLee (USA). By incorporating flexible silicone materials with low-temperature flexibility and minimal permanent deformation, this product enhances the toughness of traditional epoxy coatings while maintaining hardness after curing, effectively preventing cracking.

PodLee's innovative solid-filling technology significantly extends the penetration path of corrosive media, providing cured coatings with exceptional resistance to medium penetration and wear resistance. Compared to conventional epoxy coatings, DERAYAN delivers superior adhesion and corrosion resistance.

Intended Uses

Internal and external anti-corrosion for pipelines in marine environments.

External anti-corrosion for steel structures, mechanical equipment, cast iron components, and concrete structures.

Advantages

Excellent anti-penetration, wear resistance, and anti-corrosion – Ensures safety and reliability.

High-solid formula with low VOC emissions – Environmentally friendly.

Outstanding waterproofing – Provides long-term anti-corrosion protection for underwater components and pipelines.

Typical Characteristics

Name		Test Data	Testing Standards
Cured Density (g/cc)		1.5	–
Solid Content (%)		87	ASTM D3960
Pencil Hardness (H)		4	ASTM D3363
Water Resistance (1000h)		Pass	ASTM D2247
Adhesion (psi/MPa)	Sandblasted steel	1,087 (7.5)	ASTM D4541
Chemical Resistance (90 Days)	HCl 10%)	Pass	ASTM G20
	NaOH (10%)	Pass	
	NaCl (10%)	Pass	
Salt Spray Test (h)		5,000	ASTM B117
Service Temperature (°F/°C)		-22 (-30) – 194 (90)	–

Package

7 KG/Kit (1 kg additional specialized thinner included).

Surface Preparation

Proper surface preparation is critical for optimal performance:

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

Use mechanical sandblasting or grinding to remove rust (rust removal grade SA2.5 or ST3).

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: 6:1 (By Weight).

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

Thinner content should not exceed 10% of the total mixture.

Application

Apply using a brush or roller.

Single-coat thickness: 200 – 250 µm.

Apply 2–6 coats depending on operating conditions. Consult PodLee agents for specific requirements.

Minimum recoating interval: 5 hours.

Coverage

Based on a 250 µm thickness: 1 kg kit will cover 2.2 m² (23.6 ft²).

Pot Life After Mixing

50°F (10°C) – 3 h, 70°F (25°C) – 2 h, 104°F (40°C) – 1.5 h.

Curing Schedule

Temperature	50°F (10°C)	70°F (25°C)	104°F (40°C)
Surface Dry (h)	4	2	1.5
Complete Curing (h)	18	10	6

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.