

Product Description

Tiryán is a revolutionary rubber-plastic coating developed by PodLee Laboratories in Arizona, USA. Its development began in early 2018 and spanned three and a half years.

The specially designed molecular structure of Tiryán provides excellent shear-thinning performance in its liquid state, along with optimal surface tension and nano-scale polymer size. This allows it to penetrate irregular gaps, such as bolt-nut interfaces and flange clearances, achieving dense, fully encapsulated coating.

Its unique formula and process enable natural curing at room temperature after application, forming a solid rubber-plastic isolation layer with outstanding properties: exceptional chemical and corrosion resistance, superior sealing performance, and damping characteristics.

Unlike traditional anti-corrosion coatings, Tiryán avoids issues like anchoring effects, high crosslink density, and rigid structures. It prevents "structural locking" between the coating and metal components, ensuring long-term protection while facilitating disassembly for maintenance. This makes it ideal for pipeline fittings.

Application

Anti-corrosion protection for pipeline joints (flanges, bolts, clamps, etc.).

Waterproofing and anti-corrosion protection for storage tank edge plates.

Advantages

Strong Protection

Easy Disassembly

ST2 Low Surface Preparation

Typical Characteristics

Item	Test Data	Testing Standards	
Cured Density (g/cc)	1.6	–	
Tensile Strength (psi/MPa)	363/2.5	ASTM D 638	
Shore A Hardness	70	ASTM D2240	
Elongation at Break (%)	100	ASTM D 638	
Adhesion (psi/MPa)	Sandblasted Steel Plate	870/6	ASTM D4541
	Concrete	290/2	
	Rusted Steel Plate	290/2	
	FRP	870/6	
Chemical Resistance (90 Days)	HCl (10%)	Pass	ASTM G20
	NaOH (10%)	Pass	
	NaCl (10%)	Pass	
Salt Spray Test (h)	5000	ASTM B117	
Volume Resistivity (Ω -m)	1×10^{12}	ASTM D4496	
Service Temperature ($^{\circ}$ F/ $^{\circ}$ C)	-22/-30 – 94/90	–	

Package

1.25 KG/Kit, 6 Kits/CTN

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 (ST2 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). When the ambient temperature is below 41°F (5°C), Part A must be heated to above 50°F (10°C).

Mixing ratio: 3:2 (By Weight). Total mix ≤ 400 g per batch.

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

Application

Apply using a brush or roller.

Single-coat thickness: 200 - 250 µm. For standalone use, apply ≥ 2 coats (total 400 - 500 µm).

Allow ≥ 18 hours between coats. If exceeding 72 hours, sand the prior coat before recoating.

Coverage

Based on a 250 µm thickness: 1 kg kit will cover 1.3 m² (14 ft²)

Pot Life After Mixing

50°F (10°C) – 40 min 70°F (25°C) – 30 min 104°F (40°C) – 20 min

Curing Schedule

Temperature	50°F (10°C)	70°F (25°C)	104°F (40°C)
Surface Dry (h)	8	4	3
Complete Curing (h)	36	24	18

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.

