

Powercrete® W

Liquid Epoxy



Product Description

Powercrete® W is a liquid epoxy polymer coating designed for the use as a pipe lining for sea-water and waste-water pipes and tanks. Powercrete® W is also very effective for slurries and abrasive applications. Powercrete® W offers maximum protection against the corrosion, as it provides strong adhesion to bare steel and to ductile iron along with superior abrasion resistance. Internal lining of the pipeline with Powercrete® W improves flow efficiency and reduces internal friction, due to its smoothness. Powercrete® W also resists the growth of algae formation on the internal pipe/tank walls.

Product Applications

- ID / OD Coating for: Sea/river water & Wastewater Pipes & Storage Tanks
- Directional Drilling
- Pipe Bends, Fittings, Valves & Odd Shapes
- Any bare steel structure in need of corrosion protection

Product Features & Benefits

- 100% Solids Liquid Epoxy; No V.O.C.s and no isocyanates
Safe to use
- Bisphenol A Epoxy
Suitable for pipeline operating temperature to 55°C (131°F)
- Same Formula can be Hand or Spray Applied
Flexibility in difficult to coat field conditions
- Excellent Wetting Properties to Bare Steel
Exceptional adhesion, cathodic disbondment and soil stress resistance on bare steel

Product Properties

Property	Condition	Test Method	Typical Value	
			US Imperial	Metric
Specific Gravity	(Mixed)	ASTM D-3289-03	1.79	1.79
Compressive Strength		ASTM C-109	10,000 psi	70 MPa
Hardness	(Shore D)	ASTM D-2240	85	85
Thin Film Water Absorption		ASTM D-570	1.2 %	1.2 %
Dielectric Strength	(Oil)	ASTM D-149	450 volts/mil	17.7 volts/micron
Resistance to Acids & Alkalies		ASTM C-581	Excellent	Excellent
Adhesion to				
FBE		ASTM D-4541	2,500 psi	17 MPa
Bare Steel		ASTM D-4541	3,000 psi	20 MPa
Impact Resistance	(40 mils thickness)	ASTM G-14-88	66 inch lbs	7.7 Joules (7.7 Nm)
Flexibility	(@ -18°F (0°C))	NACE RP-0394	0.7 - 1.4 °	0.7 - 1.4 °
Tabor Abrasion	(CS-17 wheel, wear cycles)	ASTM D-4060-95	1562 cycles/mil	61 cycles/micron
Cathodic Disbondment	30 days			
43°C (110°F)		ASTM G-95	< 0.31 inch	< 8 mm
Holiday Detection	Holiday free	ISO :21809-3 & CSA Z245.20	125 Volts per mil	5 Volts per micron
		ASTM G 62 Method B	84 Volts per mil	3.3 Volts per micron

Product Selection Guide

Maximum Operating Temp	55°C (131°F)	Color	Tan
Compatible Line Coatings	FBE, CTE	Typical Single Coat Thickness	
Mixing Ratio		Manually Applied	0.5 mm (20 mils)
By Volume	9.75:1 Part A to B	Spray Applied	0.5 mm (20 mils)
By Weight	100:5.5 Part A to B	Recoat Interval (Spray)	
Surface Profile Recommended	2.5 - 4.0 mils	@ 21°C, 70°F	37 - 111 minutes
	64 - 100 microns	@ 65°C, 150°F	11 - 14 minutes
Surface Preparation	SA 2 1/2	Clean Up	Acetone, MEK
	SSPC-10 - Near-White		
	SSPC-SP5 - White		

Typical Application

Hand Apply

Spray Apply

Waste Factor



Theoretical Coverage Rates

425 mil-sq. ft./litre
1605 mil-sq. ft./US gallon
1.0 mm-m²/litre

Recommended Tip Sizes

Tip Size	Pipe Size (DN)	Flow Rates (approx.)
331	to 12" (DN300)	19tip = 1.1 L / min.
419/431	12"-16" (DN300-400)	31tip = 2.8 L / min.
519/531	16"-24" (DN400-600)	
619/631	24"-48" (DN600-1200)	

Note: Fluid pressure at tip approx. 3,500 psi.



(approx.)	
10%	Kit Application
15%	20" + pipe OD
25%	14"-18" pipe OD
35%	2"-12" pipe OD

Temperature Considerations

If the surface to be coated is below 10°C (50°F), preheating of the substrate is recommended. Preheat temperatures should not exceed 82°C (180°F) prior to the application.

Note: The application should only be done when the temperature of the steel is at least 3°C (5°F) higher than the dew point, as recommended by NACE.

Storage & Handling

For optimum performance, store Powercrete® W epoxy products in a dry, well-ventilated area. Maintain products in original packaging and sealed until just before use. Avoid exposure to direct sunlight, rain, snow, dust or other adverse environmental conditions or contaminants.

NOTE:
Avoid prolonged storage at temperatures above 40°C (104°F) or below 5°C (40°F).

Cure Times

Pot Life: 4 Lbs (1.8 Kg) Kit, @ 25°C (77°F)	22 minutes
Spray Application	
Gel Time: 40 mils, @ 27°C (80°F)	39 minutes
Dry Time: 40 mils, @ 27°C (80°F)	2.5 hours
65 Shore "D" Reading: 40 mils, @ 27°C (80°F)	7.75 hours
75 Shore "D" Reading: 40 mils, @ 27°C (80°F)	10 hours
Shelf Life (stored in specified conditions):	2 years

Ordering Information

Powercrete® W is available in three (3) packaging options:

Drum

Part A: 40 Gal / 151 L (600 Lbs/272 Kg)
Part B: 55 Gal / 208 L (450 Lbs/205 Kg)

Pail

Part A: 5 Gal / 19 L (75 Lbs/34 Kg)
Part B: 5 Gal / 19 L (40 Lbs/18 Kg)

Kit Options (Part A and B in proper mix ratio by weight)

20 Lbs / 9 Kg (1.3 Gal / 5 L)
10 Lbs / 4.5 Kg (0.67 Gal / 2.5 L)
4 Lbs / 1.8 Kg (0.27 Gal / 1 L)
2 Lbs / 0.9 Kg (0.13 Gal / 0.5 L)



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