

Powercrete® J Liquid Epoxy



Product Description

Powercrete J is the ultimate girth weld coating for FBE and CTE coated pipe. J is a single coat, 100% solids, high build epoxy that coats, repairs and rehabilitates pipelines operating at maximum temperatures up to 55°C (130°F) and other metal structures. This 2-component, solvent-free epoxy can easily achieve a dry film thickness of up to 20 mils in a single pass.

Product Applications

- Pipe Bends, Fittings, Valves & Odd Shapes
- Pipeline Repair & Rehabilitation
- Girth Welds / Field Joints
- Directional Drilling
- Water Pipe OD
- Any bare steel structure in need of protection

Product Features & Benefits

- 100% Solids Epoxy; No V.O.C.s and no isocyanates
Safe to use
- Bisphenol A Chemistry
Suitable for pipeline operating temperatures to 55°C (130°F)
- Excellent Mechanical Properties
Can be used in directional drill and thrust bore applications
- High Build in a Single Application
Cost saving formulation can build 20 mils in one pass
- 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	1.70	1.70
Compressive Strength		ASTM C-109	16,000 psi	110 MPa
Hardness	(Shore D)	ASTM D-2240	85+	85+
Thin Film Water Absorption	(Saturated)	ASTM D-570	0.85 %	0.85 %
Dielectric Strength	(Oil)	ASTM D-149	485 volts/mil	19 volts/micron
Resistance to Acids & Alkalies		ASTM C-581	Excellent	Excellent
Adhesion to				
FBE		ASTM D-4541	3,280 psi	22 MPa
Bare Steel		ASTM D-4541	3,850 psi	26 MPa
Impact Resistance	(40 mils thickness)	ASTM G-14-88	66 inch lbs	7.7 Joules (7.7 Nm)
Flexibility	(@ -18°C (0°F))	NACE RP-0394	0.75 °	0.75 °
Tabor Abrasion	(CS-17 wheel, wear cycles)	ASTM D-4060-95	1,250 cycles/mil	49 cycles/micron
Cathodic Disbondment				
55°C (130°F)	30 days	ASTM G-95	0.33 inch	8.5 mm
50°C (122°F)	90 days	ASTM G-95	0.63 inch	16.0 mm
Holiday Detection	Holiday free	ISO :21809-3 & CSA Z245.20 ASTM G 62 Method B	125 Volts per mil 84 Volts per mil	5 Volts per micron 3.3 Volts per micron

Product Selection Guide

Maximum Operating Temp	55°C (130°F)	Color	Brown
Compatible Line Coatings	FBE, CTE	Typical Single Coat Thickness	
Mixing Ratio		Manually Applied	20 mils (0.5 mm)
By Volume	4.8:1 Part A to B	Spray Applied	20 mils (0.5 mm)
By Weight	100:11.2 Part A to B	Recoat Interval (Spray)	
Surface Profile Recommended	2.5 - 4.0 mils 63.5 - 101.6 microns	@ 21°C, 70°F	26 - 83 minutes
Surface Preparation	SA 2 1/2 SSPC-10 - Near-White SSPC-SP5 - White	@ 65°C, 150°F	7 - 10 minutes
		Clean Up	Acetone, MEK

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-m ² /litre		(approx.)													
	Recommended Tip Sizes <table border="1"> <thead> <tr> <th>Tip Size</th> <th>Pipe Size (DN)</th> <th>Flow Rates (approx.)</th> </tr> </thead> <tbody> <tr> <td>331</td> <td>to 12" (DN300)</td> <td>19tip = 1.1 L / min.</td> </tr> <tr> <td>419/431</td> <td>12"-16" (DN300-400)</td> <td>31tip = 2.8 L / min.</td> </tr> <tr> <td>519/531</td> <td>16"-24" (DN400-600)</td> <td></td> </tr> <tr> <td>619/631</td> <td>24"-48" (DN600-1200)</td> <td></td> </tr> </tbody> </table> <p>Note: Fluid pressure at tip Approx. 3,500 psi.</p>		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)
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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 93°C (200°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® J 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)	20 minutes
Spray Application	
Gel Time: 20 mils, @ 27°C (80°F)	30 minutes
Dry Time: 20 mils, @ 27°C (80°F)	105 minutes
65 Shore "D" Reading: 20 mils, @ 27°C (80°F)	4.20 hours
75 Shore "D" Reading: 20 mils, @ 27°C (80°F)	5.20 hours
Application Temp Range:	-30 to 100°C -20 to 212°F
Shelf Life(stored in specified conditions):	2 years

Ordering Information

Powercrete J comes is available in three (3) packaging options:

Drum

Part A: 600Lb-272 Kg
Part B: 400Lb-181.44 Kg

Pail

Part A: 75 Lbs/34 Kg
Part B: 40 Lbs/18 Kg

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

20 Lbs / 9 Kg
10 Lbs / 4.5 Kg
4 Lbs / 1.8 Kg
2 Lbs / 0.9 Kg



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