

Powercrete® R-65/F1 Pipeline Rehabilitation and Girth Weld Coating Fast Cure Liquid Epoxy Coating



Product Description

Powercrete R-65/F1 is a 100% solids liquid epoxy coating with a fast cure time for efficient, user-friendly application and rapid backfill. In addition to ease of application, R65/F1 provides excellent long term corrosion protection for bare steel or FBE coated pipe. This high-build, two-component epoxy can easily achieve a dry film thickness (DFT) of up to 40+ mils (1 mm) in a single application.

Powercrete R-65/F1 can be applied using plural component spray equipment or by hand brush, roller or trowel. Powercrete R-65/F1's unique combination of handling and performance characteristics make it the ideal coating for pipes, girth welds and/or the repair & rehabilitation of existing pipelines.

Product Features & Benefits

- **100% Solids Epoxy: no V.O.C.s / no Isocyanates**
Safe to use.
- **Super Fast Cure Time**
Speeds up production time and saves costs.
- **High Build: 1 mm (40 mils) in a Single Pass**
Saves time and costs.
- **Compatible with Bare Steel or FBE Coated Pipe**
Flexible Use & Reduces Inventory.
- **2:1 Part A:B Mix Ratio by Volume**
Sprayable with Conventional Plural Component Equipment.
- **High Adhesion and Abrasion Resistance**
Superior performance for superior asset protection.
- **High Wet Out for Ultra High Surface Anchorage**
Longer life, better performance.
- **Same Formula for Hand or Spray Application**
Flexible and reduced inventory. Saves money.
- **Excellent Cathodic Disbondment at maximum operating temperature.**
Broad range of applications.

Typical Applications



- Pipeline Coating (Girth Welds, Pipe Bends, Fittings, Valves, Odd Shapes), Repair & Rehabilitation

Physical Properties

Property	Condition	Test Method	Typical Value	
			US Imperial	Metric
Hardness	(Shore D)	ASTM D-2240	85	85
Thin Film Water Absorption		ASTM D-570	0.22 %	0.22 %
Dielectric Strength	(Oil)	ASTM D-149	617 volts/mil	25 kV/mm
Chemical Resistance		ASTM G-20	Excellent	Excellent
Adhesion to FBE		ASTM D-4541	> 3,000 psi	21 MPa
Bare Steel		ASTM D-4541	> 3,400 psi	23 MPa
Impact Resistance		ASTM G-14	118 inch-lb/27mils	13 Joules/27mils
Flexibility	(Degrees per pipe diameter)	NACE RP-0394	< 0.45 °	< 0.45 °
Abrasion Resistance	(CS-17 wheel, wear cycles)	ASTM D-4060	986 cycles/mil	39 cycles/micron
Cathodic Disbondment	(30 days at 60°)	ASTM G-95	< 0.4 inch	< 10 mm
Hot Water Immersion	(24 hours immersion at 60°C)	CSA Z245-20-06	100% coating cohesion >3,000 psi	100% coating cohesion >21 MPa
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 Temperature:	65°C (149°F)	Color:	Green
Compatible Line Coatings:	FBE	Typical Single Coat Thickness:	
Mixing Ratio:		Manually Applied	40 mils (1.0 mm)
By Volume	2:1 Part A to B	Spray Applied	40 mils (1.0 mm)
By Weight	100:36 Part A to B	Recoat Interval (Spray):	
Recommended Surface Profile	2.5 - 4.0 mils	@ 25°C (77°F)	10 - 17 minutes
	63.5 - 101.6 microns	@ 43°C (110°F)	3 - 7 minutes
Surface Preparation:	SA 2 1/2	Theoretical Coverage:	13.5 Sq. Ft./liter @30 mils
	SSPC-10 - Near-White	Clean Up:	Acetone, MEK, Toluene
	SSPC-SP5 - White		

Hand Apply	Coverage Rates	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.) <table border="1"> <tr> <td>10%</td> <td>Kit Application</td> </tr> <tr> <td>15%</td> <td>20" + pipe OD</td> </tr> <tr> <td>25%</td> <td>14"-18" pipe OD</td> </tr> <tr> <td>35%</td> <td>2"-12" pipe OD</td> </tr> </table>	10%	Kit Application	15%	20" + pipe OD	25%	14"-18" pipe OD	35%	2"-12" pipe OD						
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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 80° C (176° F) prior to application.

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

Storage and Handling

For optimum performance, store Powercrete R-65/F1 epoxy product 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, and other adverse environmental conditions or contaminants.

Always consult Material Safety Data Sheet prior to handling Powercrete R-65/F1.

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

Cure Times @ 25°C (77°F)

Pot Life: 0.5 L / 2 Lb kit	9 minutes
Spray Application	
Gel T 40 mils	12 minutes
Dry Time: 40 mils	37 minutes
65 Shore "D" Reading: 40 mils	60 minutes
75 Shore "D" Reading: 40 mils	75 minutes

Shelf life (stored in specified conditions):	Part A - 2 years Part B - 1 years
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Ordering Information

1. Drums

211912-000 **Part A Drum:** PC-F1-A-156L-41Gal (299Kg-660Lb)
 380234-000 **Part B Drum:** PC-F1-B-156L-41Gal (215Kg-475Lb)

2. Kits:

645247-000 **0.5 L Kit:** PC-F1-0.5L-kit (0.9Kg-2Lb)
 124017-000 **1 L Kit:** PC-F1-1L-kit (1.7Kg-4Lb)
 690692-000 **2.5 L Kit:** PC-F1-2.5L-kit (4.3Kg-10Lb)

3. Accessories Kit:

contains: latex gloves;
 trowels;
 mixing paddle for an electric drill;
 hand stirrer;
 wet mil gauge;
 disposable face masks.



Product Support and Additional Information

For additional information on delivery, application, training, appropriate equipment, sales and customer service, please visit www.berrycpg.com, call or email one of the worldwide locations listed below.



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