

PRODUCT DATA SHEET

POWERCRETE® R-95

Product Information

Product description: Powercrete® R-95 is a high-build solvent free novolac epoxy coating designed for protecting new line pipes and pipeline rehabilitation projects that operates at temperatures up to 95°C (203°F). Powercrete® R-95 can be used for extra protection on top of FBE mainline coatings or as a DTM (drirect to metal) coating when an increased temperature-and chemical resistance is required.

Features:

- 100% Solids Novolac Epoxy
- no VOC
- high temperature and chemical resistance
- Excellent adhesion to FBE and abrasive blasted steel
- · Excellent cathodic disbondment characteristics
- · Excellent wastewater and sulphuric acid resistance
- Suitable for pipeline operating temperatures to 95°C (203°F)
- Can be sprayed and hand applied up to 1000micron (40mils) in one multi-pass layer

Application examples

Application: coating system for pipe bends, fittings, valves, girth welds, field joints, directional drilling, buried tanks and vessels, Offshore risers, piles, waste water pipes, sulphur hoppers and chutes and other steel structures in need of protection that operates temperatures up to 95°C (203°F).

Product Performance	(processing under lab	oratory conditions)
	Test Method	Typical Value
Cathodic Disbondment	ASTM G8 (25°C)	3 mm
	(77°F) 30 days	_
	ASTM G95 (95°C) (203°F) 30 days	8mm
Flexibility	NACE RP-0394	0.27/PD at 23°C/73°F
Impact Resistance	ASTM-G14	>44.25in/lb/>5Nm/>5J at 40mils/1000micron
Adhesion to FBE	ASTM D4541	3000psi/20MPa
Adhesion to Steel	ASTM D4541	3500psi/24MPa
Adhesion to Steel, 90D HWI at 85°C (185°F)	ASTM D4541	3130psi/21MPa
Abrasion Resistance	ASTM D4060	850 cycles a mil (34 cycles/micron)
Resistance to Acids and Alkalies	ASTM C581	Excellent
Dielectric Strength	ASTM D149	690V/mil (27V/micron)
Thin Film Water Absorption	ASTM D570	0.15% (24 hours)
Hardness	ASTM D2240	85 Shore D

General Product Information		
Colour	Grey	
Finish	Gloss	
Primer	Self-priming on FBE and DTM	
Dry Film Thickness	40mils (1000micron) for most applications	
Coverage Rate (theoretical)	40.8 sq.ft/USG at 40mils (1000micron)DFT. 1,00m ² /l at 40mils (1000micron)DFT.	
Volume Solids	100%	
VOC Content	0 g/l	
Flash Point	154°C (309°F) mixed product	
Mixing Ratio	3.6:1 (A to B in volume) 100:16 (A to B by weight)	
Potlife	14 minutes at 25°C (77°F)	

Application Instru	ction: Surface Preparation Steel
General	The area to be coated has to be clean, dry and free from oil, grease and dust. All contamination that could interfere with the adhesion of the coating has to be removed according to SSPC-SP1.
Preventing	Prior and during the surface preparation, the
condensation on	temperature of the substrate(s) must be at least
the substrate	5°F (3°C) above the dew point.
Abrasive Blasting	Minimum Sa2½ (SSPC-SP10/ NACE2) .
Recommended Surface Profile	3-4mils (75-100micron) angular profile.

Application Instru	Application Instruction: Surface Preparation FBE		
General	The area to be coated has to be clean, dry and free from oil, grease and dust. All contamination that could interfere with the adhesion of the coating has to be removed according to SSPC-SP1.		
Preventing	Prior and during the surface preparation, the		
condensation on	temperature of the substrate(s) must be at least		
the substrate	5°F (3°C) above the dew point.		
Abrasive Blasting	Sa1 (SSPC-SP7/NACE4, sweep-blasting for		
	optimum performance.		
Recommended Surface Profile	Minimum 2mils (50micron) angular profile.		

Application Safety	
General	Read the Product Data Sheet and follow the caution statements on the Material Safety Data Sheet . Personnel who will come into contact with the product should be using appropriate protection equipment. Follow national safety guidelines.

Application	Conditions			
	Product	Surface	Ambient	Humidity
Optimum	130°F	70-90°F	70-90°F	25-50%
	(55°C)	(21-32°C)	(21-32°C)	
Minimum	122°F	50°F	-20°F	0%
	(50°C)	(10°C)*	(-30°C)	
Maximum	140°F	200°F	120°F	85%
	(60°C)	(93°C)	(49°C)	

* 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 and during the application, the temperature of the substrate must be at least 3°C above the dew point.

Application Instru	ction: Plural Component Spray
Step 1	Mix the Part A and B until uniform in consistency.
Step 2	Use only heated plural component Airless equipment capable to maintain a 3.6:1 ratio in volume and 1.25 Gallon/4,73 Liter per minute output, with heated drums, insulated (heated) hoses and minimum 193bar (2800psi.) fluid pressure for Part A and 207bar (3000psi) for Part B. Use Binks 1M Airless spray-gun or equal with preferably changeable spray tips. Consult Powercrete® for specific information.
Step 3	Part A must be heated up and maintained to a temperature of 60-65°C (140-150°F) and Part B must be heated up and maintained at 38-49°C (100-120°F).
Step 4	Apply Powercrete® R-95 in the recommended DFT. Use a WFT gauge to check. Do not dilute the product.

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Curing Times at 25°C (77°F)		
Gel Time:	31 minutes	
Dry time:	1.3 hours	
65 shore D:	2.2 hours (ready for Holiday test)	
75 shore D:	5.0 hours (full cure)	
Cure time is based on 40 mils (1000micron) DFT. Recoat interval at 21°C (70°F) is 34-60minutes and 4-7 minutes at 65°C (150°F).		

Additional Information	
Documentation	Application instructions and other documentation can be obtained by contacting our head office, from our local distributor or by sending email to info@sealforlife.com
Certified staff	Application of the described coating system should be carried out and inspected by certified personnel.

Inspection and Re	Inspection and Repair		
Inspection	The finished coating must be visually inspected for any defects, such as runs and sags, fisheyes, blistering, pinholes, missed spots and possible contaminants. Pinhole/Holiday detection must generated according to NACE SP0188.		
Coating Thickness	The coating thickness (DFT) must be within the specified DFT range. Use calibrated equipment and measure according to SSPC-PA 2 or other specified standard.		
Repair	Pinholes/Holidays must be located and repaired with approved material. Consult Powercrete® for specific information. Retest the repaired area.		

Cleaning		
Cleanup	Use Acetone or MEK.	

Handling	
General	Transport and stacking is possible after full cure of the coating and generating a Holiday test (NACE SP0188). This time can be reduced by increasing the curing temperature. Consult Powercrete [®] for specific information.

General Order Information		
Product	Powercrete® R-95.	
	Product dimensions and contents:	
Drum		
Part A	40 gal/151.4 l	(625 lb/283.5 kg)
Part B	46 gal/174.1 l	(400 lb/181.4 kg)
Pail		
Part A	4 gal/15.1 l	(61.7 lb/28 kg)
Part B	4.6 gal/17.4 l	(39.5 lb/17.9 kg)
Kit Options	1.44 gal/5.45 l	(20 lb/9.1 kg)
	0.72 gal/2.73 l	(10 lb/4.5 kg)
	0.29 gal/1.09 l	(4 lb/1.8 kg)
	0.14 gal/0.53 l	(2 lb/0.9 kg)
Cartridges	On request.	
Handling	Handle with care. Keep containers upright.	
Storage	Store indoor, clean and dry, away from direct	
	sunlight in a cool place below 18-30°C (65-	
	85°F). Keep from freezing. Shelf life 24 months	
	in the original unopened containers.	



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