

PRODUCT DATA SHEET

POWERCRETE® R-150

Product Information

Product description: Powercrete® R-150 is a high-build solvent free novolac epoxy coating designed for protecting new line pipes and pipeline rehabilitation projects that operates at high temperatures up to 150°C (302°F). Powercrete® R-150 can be used for extra protection on top of FBE mainline coatings or as a DTM (drirect to metal) coating when high operating temperature-and chemical resistance is required.

Features:

- 100% Solids Novolac Epoxy
- no VOC
- · high temperature and chemical resistance
- DIN EN 10289 compliant "Steel Tubes and Fittings for Onshore and Offshore Pipelines"
- Excellent adhesion to FBE and abrasive blasted steel
- Excellent cathodic disbondment characteristics
- Excellent wastewater and sulphuric acid resistance
- · Can be used in directional drill and thrust bore applications.
- Suitable for pipeline operating temperatures to 150°C (302°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 and other steel structures in need of a high performance protection at operating temperatures up to 150°C (302°F).

Product Performance (processing under laboratory conditions)			
	Test Method	Typical Value	
Cathodic Disbondment	ASTM G8 (23°C)	4mm	
	(73°F) 30 days.		
	DIN EN 10289	0mm	
	2 days (60°C)(140°F)	0	
	ASTM G42 (95°C)	8mm	
	(203°F) 30 days. ASTM G42 (150°C)	<12mm	
	(302°F) 30 days.	<1211111	
Flexibility	NACE RP-0394	0.27°/PD at	
. ioxioiiity	TWICE IN COOP	23°C/73°F	
Impact Resistance	ASTM-G14	70 in/lb/7.9Nm/7.9J	
•		at	
		40mils/1000micron	
Adhesion to FBE	ASTM D4541	3000psi/20MPa	
Adhesion to Steel	ASTM D4541	3550psi/24MPa	
	After 90 days HWI at	2830psi/19.5MPa	
	150°C (302°F)		
Abrasion Resistance	ASTM D4060	885 cycles a mil	
		(35 cycles/micron)	
Resistance to Acids and Alkalies	ASTM C581	Excellent	
Dielectric Strength	ASTM D149	730V/mil	
Dielectric Strength	ASTWID149	(29.0V/micron)	
Thin Film Water	ASTM D570	0.15% (24 hours)	
Absorption	7.01W D070	0.1070 (Z-110013)	
Hardness	ASTM D2240	85 Shore D	
	After 90 days HWI at	85 Shore D	
	150°C (302°F)		
Penetration	ASTM G17 after 90	0.021 in (0.53mm)	
	days HWI at 150°C		
	(302°F)		

General Product	Information
Colour	Grey
Finish	Gloss
Primer	Self-priming on FBE and DTM
Dry Film	40mils (1000micron) for most applications
Thickness	
Coverage Rate	40.8 sq.ft/USG at 40mils (1000micron)DFT.
(theoretical)	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 Instruction: 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	3-4mils (75-100micron) angular profile.		
Surface Profile			

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	Minimum 2mils (50micron) angular profile.		
Surface 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	212°F	120°F	85%
	(60°C)	(100°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 100°C (200°F). Prior and during the application, the temperature of the substrate must be at least 3°C above the dew point.

DISCLAIMER: Seal For Life Industries warrants that the product(s) represented within conform(s) to its/their chemical and physical description and is appropriate for the use as stated on the respective technical data sheet when used in compliance with Seal For Life Industries written instructions. Since many installation factors are beyond the control of Seal For Life Industries, the user is obligated to determine the suitability of the products for the intended use and assume all risks and liabilities in connection herewith. Seal For Life Industries liability is stated in the standard terms and conditions of sale. Seal For Life Industries makes no other warranty either expressed or implied. All information contained in the respective technical data sheet(s) should be used as a guide and is subject to change without notice. This document supersedes all previous revisions. Please see revision date on the left. Powercrete® is a registered trademark of Seal For Life Industries.

JANUARY 2014 (EN) Page 1 / 2



POWERCRETE® R-150

Application Inst	ruction: 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-150 in the recommended DFT. Use a WFT gauge to check. Do not dilute the product.

Curing Times at 25°C (77°F)			
Gel Time:	31 minutes		
Dry time:	1.3 hours		
65 shore D:	5 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).			

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-150.		
	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/2.72 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.		

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.





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JANUARY 2014 (EN) Page 2 /