

PRODUCT DATA SHEET

POWERCRETE[®] DD

Product Information

Product description: Powercrete[®] DD is a solvent free epoxy ARO (Abrasion Resistant Overly) polymer concrete coating designed to protect FBE (Fusion Bonded Epoxy) coated pipe for directional drilling, thrust (slick) bore and pull-through applications. The product is applied directly on the FBE mainline coating of a pipeline to provide a high performance protection to the system under rough terrain conditions. Powercrete[®] DD offers exceptional abrasion, strength, hardness, impact resistance and adhesion properties and has therefore been specified and installed successfully in many directional drilling projects as the number one abrasion resistant overlay (ARO) for over twenty years.

Features:

- 100% Solids Epoxy
- no VOC
- Excellent adhesion to FBE
- Excellent mechanical properties
- Superior abrasion resistance
- Widely used in directional drill and thrust bore applications.
- Suitable for pipeline operating temperatures to 55°C (130°F)
- Can be sprayed and hand applied up to 500micron (20mils) in one multi-pass layer

Application examples

Application: ARO coating system on top of FBE for directional- and thrust (slick) bore drilling applications and other severe abrasive pipeline applications. The product can also be used as a direct to metal (DTM) system to protect other steel substrates when abrasion is a concern.

Product Performance (processing under laboratory conditions)		
	Test Method	Typical Value
Cathodic Disbondment	ASTM G8 (25°C)	10mm
	(77°F) 90 days	(on bare steel)
	ASTM G95 (55°)	10mm
	(131°F) 30 days	(on bare steel)
Flexibility	NACE RP-0394	>0.3°/PD at 23°C/73°F
Impact Resistance	ASTM-G14	>80 in/lb/9.0Nm/9.0J at
		40mils/1000micron.
Adhesion to FBE	ASTM D4541	2500psi/17MPa
Adhesion to Steel	ASTM D4541	3000psi/20MPa
Abrasion Resistance	ASTM D4060	>1250 cycles a mil
		(>50 cycles/micron)
Resistance to Acids and Alkalies	ASTM C581	Excellent
Dielectric Strength	ASTM D149	580V/mil (23V/micron)
Thin Film Water	ASTM D570	0.40% (24 hours)
Absorption		
Hardness	ASTM D2240	83 Shore D

General Product Information		
Colour	Tan and Black	
Finish	Gloss	
Primer	Self-priming on FBE and DTM	
Dry Film Thickness	20mils (500micron) for most applications	
Coverage Rate (theoretical)	81.5 sq.ft/USG at 20mils (500micron)DFT. 2,00m ² /l at 20mils (500micron)DFT.	5
Volume Solids	100%	
VOC Content	0 g/l	S
Flash Point	>199°F (>93°C) mixed product	
Mixing Ratio	9.75:1 (A to B in volume) 100:5.5 (A to B by weight)	
Potlife	22 minutes at 25°C (77°F)	

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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 condensation on the substrate	Prior and during the surface preparation, the temperature of the substrate(s) must be at least $5^{\circ}F$ (3 $^{\circ}C$) above the dew point.
Abrasive Blasting	Minimum Sa21/2 (SSPC-SP10/ NACE2) .
Recommended Surface Profile	3-4mils (75-100micron) angular profile.
Application Instru	ction: Surface Preparation FBE
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Application Instruction: Surface Preparation Ste

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	35°F	0%
	(50°C)	(10°C)*	(2°C)	
Maximum	140°F	180°F	120°F	85%
	(60°C)	(82°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 82°C (180°F). Prior and during the application, the temperature of the substrate must be at least 3°C above the dew point.

Application Instruc	tion: 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 9.75:1 ratio in
	volume and 1.25 Gallon/4,73 Liter per minute
	output, with heated drums, insulated (heated)
	hoses and minimum 170bar (2500psi.) fluid
	pressure for Part A and 124bar (1800psi) 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 54°C (130°F) and Part B must be
	heated up and maintained at 20-30°C (68-86°F).
Step 4	Apply Powercrete [®] DD in the recommended
-	DFT. Use a WFT gauge to check. Do not dilute
	the product.

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 instantion contained 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 makes and assumed to the state of the st

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POWERCRETE[®] DD

Curing Times a	at 25°C (77°F)	Additional Information	
Gel Time:	39 minutes	Documentation	Application instructions and other
Dry time:	2.5 hours		documentation can be obtained by contacting
65 shore D:	7.75 hours (ready for Holiday test)		sending email to info@sealforlife.com
75 shore D:	10 hours (full cure)	Certified staff	Application of the described coating system
Cure time is based on 40 mils (1000micron) DFT. Recoat interval at			should be carried out and inspected by certified
21°C (70°F) is 30-120minutes and 10-15 minutes at 65°C (150°F).			personnel.

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 [®] DD.		
	Product dimensions and contents:		
Drum			
Part A	39.63 gal/150,00 l	(608.46 lb/276,00 kg)	
Part B	40.64 gal/153,84 l	(332.36 lb/150,76 kg)	
Dell			
	2.06 mol/15.00 l	(60.94 lb/27.60 km)	
Parl A Dort P	3.96 gal/15,00 l	(00.64 ID/27,00 Kg)	
Fall D	4.00 yai/15,50 l	(33.23 lb/15,07 kg)	
Kit Options	0.52 gal/2.0 l	(8 11 lb/3 68 kg)	
opnone	0.26 gal/1.0 l	(4.05 lb/1.84 kg)	
	0.13 gal/0.5 l	(2.02 lb/0.92 kg)	
	J	(3,	
Cartridges	NA.		
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Handling	Handle with care. Keep containers upright.		
Storage	Store indoor, clean and dry, away from direct		
	sunlight in a cool place between 18-30°C (65-		
	85°F). Keep from freezing. Shelf life 24 months		
	for part A and 12 months for part B in the origi-		
	nal unopened containers.		



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Anodeflex[®] - Stopaq[®] - Polyken[®] - Covalence[®] - Powercrete[®] - Sealtaq[®] - Blockr[®] - Easy-Qote[®]

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