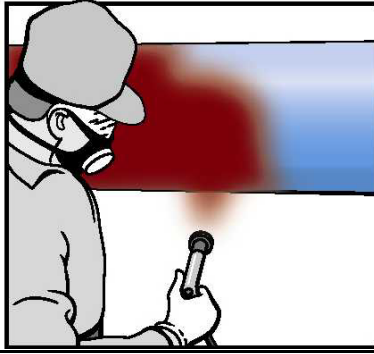
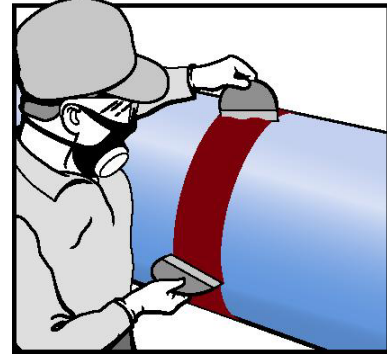




Powercrete® R100



Powercrete® R100 (High Build & Fast Setting) is designed to provide excellent corrosion protection to steel pipe or other metal structures having operating temperature up to 100°C (212°F).



Product description

Powercrete® R100 is a newly formulated 100% (NO VOC) Solids Epoxy Coating, which combines the optimum qualities of mechanical protection with those of superior corrosion protection. Spray applied, it is possible to achieve a DFT of 40 mils (1 mm) with no drips or sags.¹ The result is an epoxy based polymer coating, capable of providing excellent corrosion protection of lines operating at temperatures up to 212°F (100°C).

Powercrete® R100 is a highly abrasion and impact resistant corrosion coating that is ideally suited for the **protection of joints of FBE coated pipe**. It is applied both over clean, bare steel and FBE coated steel. It was specifically developed and tested for the rehabilitation of high temperature pipeline as well as the protection of girth welds. It is compatible with plant applied fusion bonded epoxy and coal tar enamel coated pipe. It can also be used for many other pipeline, marine, and industrial applications.

Product Application

Powercrete® R100 is designed for either manual or spray application. When manually applied it is mixed and poured onto the pipe surface. Then it is smoothed with a Powercrete® R100 trowel (short bristle brush or roll) to a uniform thickness. Both spray and manual application can yield a thickness of approximately 0.040" (1 mm). However, higher builds can be achieved.

When Powercrete® R100 is manually applied at an atmospheric temperature of about 77°F (25°C), it gels to a smear free coat in approximately 30 minutes. It is hard in less than 6 hours to reach SHORE D 75 reading. At full cure (approximately 24 hours), it has a typical Shore D hardness of 85 or higher and is therefore ready for use. It may be applied to a heated substrate to 100°C (212°F) to shorten the gel and cure time. Once fully cured, it has excellent abrasion and impact resistance. It also provides an excellent cathodic disbondment rating on the steel surface of gas and oil pipelines. Note: A post-cure of 2 hours of at 82°- 94°C (180°- 200°F), the performance of the coating will be greatly enhanced.

Product features/benefits

- Excellent cathodic disbondment resistance at elevated temperature.
- Maximum adhesion to bare steel.
- Excellent mechanical properties.
- Excellent resistance to water immersion, including seawater and ground water over a broad pH range.
- 100% solids content, no V.O.C.'s.

Product selection guide

- | | |
|---------------------------------|---|
| • Maximum operating temperature | 212°F (100°C) |
| • Compatible line coatings | FBE, CTE |
| • Recommended pipe preparation | SA 2 ^{1/2} or SSPC-10/SSPC-SP5 |

Product thickness (DFT)

- | | |
|-------------------------------|---------------------------|
| • Single coat – brush applied | 0.040" (1.016 mm) 40 mils |
| • Single coat – Spray applied | 0.040" (1.016 mm) 40 mils |

Product properties

	ENGLISH	METRIC	TEST METHOD
Specific Gravity	1.47	1.47	
Compressive Strength	15,500 psi	106,700 kilopascals	ASTM C-109
Cubed Water Absorption			
After immersion	0.020%	0.020%	ASTM C-642
After immersion and boiling	0.139%	0.139%	ASTM C-642
Thin Film Water Absorption	0.52%	0.52%	ASTM D-570
Dielectric Strength (in oil)	746.83 volts/mil	29.52 volts/micron	ASTM D-149
Resistance to Acids and Alkalis	Excellent	Excellent	ASTM C-581
Adhesion to Fusion Bonded Epoxy	2,507 psi	17285.16Kilopascals	ASTM D-4541
Adhesion to Bare Steel > 2 mils surface profile	2,450 psi	16892.16kilopascals	ASTM D-4541
Impact Resistance Film thickness 35 mils	72 inch lbs	8.13 Joules	ASTM G-14
Flexibility degrees per pipe diameter 0°F (-18°C)	0.6°	0.6°	NACERP-0394 Taber Abrasion
H-18 Wheel, wear cycles	63 cycles/mil	2.5 cycles/micron	ASTM D-4060
CS-17 Wheel, wear cycles	1785 cycles/ m	70.6 cycles/micron	ASTM D-4060
Cathodic Disbondment 4 Weeks, 212°F (100°C)	<0.2 inch	<5 mm	ASTM G-42
Hardness	85 Shore D	85 Shore D	ASTM D 2240-91

Ordering information

Powercrete® R100 products are available:

- In drums: Base: PC-R100 PART-A-55GAL-208.2L (734.4Lbs-333.1Kg)
Hardener: PC-R100 PART-B-55GAL-208.2L (472.8Lbs-214.4Kg)
- In pails: Base: PC-R100 PART-A-4.8GAL-18.2L (64.1Lbs-29.1Kg)
Hardener: PC-R100 PART-B-4.8GAL-18.2L (41.3Lbs-18.7Kg)
 - In kits containing base and hardener in the proper 4 PART A: 1 PART B by volume
 - PC-R100 1lb-0.45kg-kit (0.08GAL-0.3L)
 - PC-R100 2lb-0.9kg-kit (0.16GAL-0.6L)
 - PC-R100 4lb-1.8kg-kit (0.32GAL-1.2L)
 - PC-R100 10lb-4.5kg-kit (0.8GAL-3.1L)
 - PC-R100 20lb-9kg-kit (1.6GAL-6.2L)

Mixing Ratio: 4:1 PART A to PART B by volume
100:14.1 PART A to PART B by weight

Application accessories such as stirrers, pads and rollers are also available and may be ordered separately, see datasheet accessories.

Tyco Adhesives warrants that the product conforms to its chemical and physical description and is appropriate for the use stated on the technical data sheet when used in compliance with Tyco Adhesives' written instructions. Since many installation factors are beyond the control of Tyco Adhesives, the user shall determine the suitability of the products for the intended use and assume all risks and liabilities in connection herewith. Tyco Adhesives' liability is stated in the standard terms and conditions of sale. Tyco Adhesives makes no other warranty either expressed or implied. All information contained in this technical data sheet is to be used as a guide and is subject to change without notice. This technical data sheet supersedes all previous data sheets on this product.

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