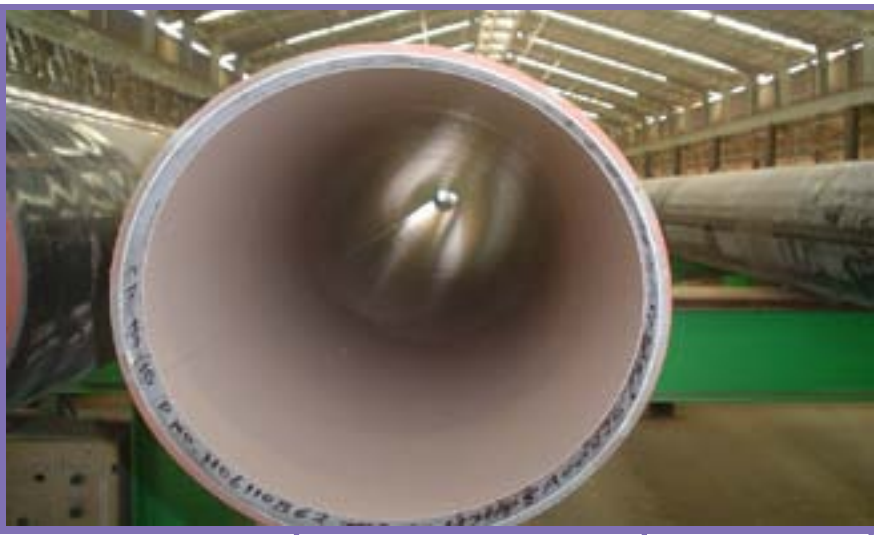
Powercrete®
Epoxy Coatings

Powercrete®PW-A

Liquid Epoxy Polymer Coating



Market	Application	Temperature Range	Performance
Potable and wastewater pipes and storage tanks	ID/OD coating for: potable & wastewater pipes & storage tanks. Directional drilling. Pipe bends, fittings, valves & odd shapes. Any bare structure in need of protection.	up to 55°C (130°F)	WRAS

System Description

Powercrete® PW-A is 100% solids, liquid epoxy coating designed for use as an internal and external coating for pipelines carrying water, as well as an internal coating of water storage tanks.
The epoxy is suitable for a maximum operating temperature upto 55°C (130°F). The 2-component, solvent-free epoxy can easily achieve a dry film thickness of up to 0.5 mm (20 mils) in a single pass.

Product Advantages

- **100% Solids Liquid Epoxy; No V.O.C.s and no isocyanates**
  Safe to use.
- **Bisphenol A Epoxy**
  Suitable for pipeline operating temperature to 55°C (130°F).
- **Excellent Mechanical Properties**
  Can be used in directional drill and thrust bore applications also.
- **High build in a Single Application**
  Cost saving formulation can build 0.5 mm (20 mils) in one pass.
- **Same Formula can be Hand or Spray Applied**
  Flexibility in difficult to coat field conditions.
- **Suitable for Potable Water**
  Exceeds AWWA C210 requirements.
  Meets requirements of BS:6920 standard.
  Approved by WRc-NSF, UK.
  Certified by WRAS, UK
- **Excellent Wetting Properties to Bare Steel**
  Exceptional adhesion, cathodic disbondment and soil stress resistance on bare steel.

Product Selection Guide

- **Max operating temperature**
  55°C (130°F)
- **Mixing Ratio**
  By volume 4.8:1 Part A to B
  By weight 100:11.2 Part A to B
- **Surface profile recommended**
  63.5 - 101.6 microns
  2.5 - 4.0 mils
- **Surface preparation**
  SA 2½
  SSPC-10 - Near-White
  SSPC-SP5 - White
- **Color**
  Dark Tan / Light Brown
- **Typical single coat thickness recommended**
  Manually applied 0.5 mm (20 mils)
  Spray applied 0.5 mm (20 mils)
- **Recoat Interval (Spray)**
  @ 21°C (70°F) 26-83 minutes
  @ 65°C (150°F) 7-10 minutes
- **Clean up**
  Acetone, MEK

Cure Times

- **Pot Life:**
  4 Lbs (1.8 Kg) Kit @ 25°C (77°F) 20 min.
- **Spray Application**
- **Gel Time:** 20 mils @ 27°C (80°F) 30 min.
- **Dry Time:** 20 mils @ 27°C (80°F) 105 min.
- **65 Shore "D" Reading:**
  20 mils @ 27°C (80°F) 4.20 hrs.
- **75 Shore "D" Reading:**
  20 mils @ 27°C (80°F) 5.20 hrs.
- **Application Temp Range:** -30 to 100°C (-20 to 212°F)
- **Shelf Life**
  (stored in specified conditions): 2 yrs.

Typical Application

Theoretical Coverage Rates
425 mil-sq. ft./litre
1605 mil-sq. ft./US gallon
1.0 mm-m²/litre

Hand or Spray applied.

Recommended Tip Sizes (for Spray for External of Pipes)

Tip Size	Pipe Size (DN)	Flow Rates (approx.)
331	to 12" (DN300)	19 tip = 1.1 L/min.
419/431	12"-16" (DN300-400)	31 tip = 2.8 L/min.
519/531	16"-24" (DN400-600)	Note: Fluid pressure at tip approx. 3,500 psi
619/631	24"-48" (DN600-1200)	

Recommended tip sizes (for internal spray applic.) : 939/941 (for 48" and above)

Waste Factor (approx.)

10%	Kit application
15%	20" + pipe OD
25%	14"-18" pipe OD
35%	2"-12" pipe OD

DS-PC-PW-A-REV5-MAR12-LEXPS-0098

Product Properties *

Properties		Test Method	Typical Value	
	Condition		US Imperial	Metric
Specific Gravity	(Mixed)	ASTM D-3289-03	1.67	1.67
Compression Strength		ASTM C-109	11, 100 psi	76.8 MPa
Hardness	(Shore D)	ASTM D-2240	85	85
Thin Film Water Absorption	(Saturated, 24 hrs)	ASTM D-570	1%	1%
Dielectric Strength	(in Oil)	ASTM D-149	477.5 volts/mil	18.8 volts/micron
Adhesion to Bare Steel	(Blast cleaned)	ASTM D-4541	3000 psi	20 MPa
Flexibility	(@ 30°C (86°F))	NACE RP-0394	1.18° per pipe dia	1.18° per pipe dia
Taber Abrasion	(CS-10 wheel, 1000 gms, 1000 cycles)	ASTM D-4060-95	1586 cycles/mil	62 cycles/micron
Holiday Detection	Holiday free	ISO:21809-3 & CSA Z245.20 ASTM G-62 Method B	125 Volts per mil 84 Volts per mil	5 Volts per micron 3.3 Volts per micron

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 93°C (200°F) prior to the application.

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

Storage & Handling

For optimum performance, store Powercrete® PW-A epoxy products 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 or other adverse environmental conditions or contaminates.

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

Ordering Information

Powercrete® PW-A is available in three (3) packaging options:

Drum

Part A:	611 Lbs / 277 Kg	(40 Gal / 153 Ltr)
Part B:	419 Lbs / 190 Kg	(50.7 Gal / 192 Ltr)

Pail

Part A:	75 Lbs/34 Kg	(5 Gal / 19 Ltr)
Part B:	40 Lbs/18 Kg	(4.8 Gal/ 18 Ltr)

Kit Options (Part A and B in proper mix ratio by weight)

5.7 Lbs / 2.6 Kg	(0.40 Gal : 1.50 Ltr)
4.6 Lbs / 2.1 Kg	(0.33 Gal : 1.25Ltr)
3.7 Lbs / 1.7 Kg	(0.28 Gal : 1.0 Ltr)
2.0 Lbs / 0.9 Kg	(0.14 Gal : 0.50 Ltr)

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Packaged and Distributed by:

PROTECTION ENGINEERING
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