

Powercrete® R-60 (Burgundy) Liquid Epoxy



Product Description

Powercrete R-60 (Burgundy) is a medium temperature, high-build liquid epoxy coating designed specifically for corrosion protection of buried pipelines coated with Fusion Bonded Epoxy and operating at temperatures up to 140°F (60°C). R-60 (Burgundy) is ideally suited for the corrosion protection of girth weld areas on FBE coated pipes, also for valves, fittings, bends and for rehabilitation of pipelines. R-60 (Burgundy) is a 2-component, solvent-free epoxy can easily achieve a final dry film thickness of up to 30+ mils (~ 750 microns) in a single coat, without drips or sags. R-60 (Burgundy) combines the adhesion, toughness and anti-corrosion properties of epoxy with an ease of application.

Product Applications

- Pipe Bends, Fittings, Valves & Odd Shapes
- Pipeline Repair & Rehabilitation
- Girth Welds / Field Joints
- Directional Drilling
- Water Pipe OD
- Any bare steel structure in need of protection

Product Features & Customer Benefits

- 100% Solids Epoxy
No V.O.C.s and no isocyanates
- Excellent Mechanical Properties
Can be used in directional drill and thrust bore applications
- High Build in a Single Application
Cost saving formulation can build 30 mils in one pass
- Excellent Resistance to Water Immersion
Can be buried within close contact of seawater and ground waters over a broad pH range
- Same Formula can be Hand or Spray Applied
Flexibility in difficult to coat field conditions
- Excellent Wetting Properties to Bare Steel
Exceptional adhesion, cathodic disbondment and soil stress resistance on bare steel

Product Properties

| Property | Condition | Test Method | Typical Value | |
|---|----------------------------|----------------------------|-------------------|----------------------|
| | | | US Imperial | Metric |
| Specific Gravity | (Mixed) | ASTM D-3289-03 | 1.67 | 1.67 |
| Compressive Strength | | ASTM C-109 | 14,000 psi | 96.55 MPa |
| Hardness | (Shore D) | ASTM D-2240 | 85 | 85 |
| Thin Film Water Absorption | (24 hrs.) | ASTM D-570 | 0.2 % | 0.2 % |
| Dielectric Strength | (Oil) | ASTM D-149 | 485 V/mil | 19.1 V/micron |
| Resistance to Acids & Alkalies | | ASTM C-581 | Excellent | Excellent |
| Adhesion to : FBE Bare Steel | | ASTM D-4541 | 3,600 psi | 24.82 MPa |
| | | ASTM D-4541 | 4,000 psi | 27.58 MPa |
| Impact Resistance | (35 mils thickness) | ASTM G-14 | 54 inch lbs | 6.3 Nm (6.3 Joules) |
| Flexibility (Degrees per pipe Ø) | (@ -0°C (32°F)) | NACE RP-0394 | < 0.73 ° | < 0.73 ° |
| Taber Abrasion | (CS-17 wheel, wear cycles) | ASTM D-4060-95 | 972 cycles/mil | 38.27 cycles/micron |
| Cathodic Disbondment 30 days 75°F (24°C) | | ASTM G-8 | 0.2 inch | 5 mm |
| Holiday Detection | Holiday free | ISO :21809-3 & CSA Z245.20 | 125 Volts per mil | 5 Volts per micron |
| | | ASTM G 62 Method B | 84 Volts per mil | 3.3 Volts per micron |

Product Selection Guide

| | | | |
|--------------------------|----------------------|-------------------------------|-------------------|
| Maximum Operating Temp | 60°C (140°F) | Color | Maroon/Burgundy |
| Compatible Line Coatings | FBE, CTE | Typical Single Coat Thickness | |
| Mixing Ratio | | Manually Applied | 30 mils (0.75 mm) |
| By Volume | 4.8:1 Part A to B | Spray Applied | 30 mils (0.75 mm) |
| By Weight | 100:11.2 Part A to B | Recoat Interval (Spray) | |
| Surface Profile | 2.5 - 4.0 mils | @ 21°C, 70°F | 26 - 83 minutes |
| (Recommended) | 63.5 - 101.6 microns | @ 65°C, 150°F | 7 - 10 minutes |
| Surface Preparation | SA 2 1/2 | Clean Up | Acetone, MEK |
| | SSPC-10 - Near White | | |
| | SSPC-SP5 - White | | |

Typical Application

Powercrete® R-60 (Burgundy)

Hand Apply

Spray Apply

Waste Factor



Theoretical Coverage Rates

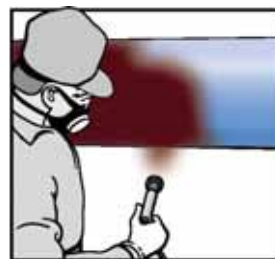
425 mil-sq. ft./litre
1605 mil-sq. ft./US gallon
1.0 mm-m²/litre

Recommended Tip Sizes

| Tip Size | Pipe Size (DN) |
|----------|----------------------|
| 331 | to 12" (DN300) |
| 419/431 | 12"-16" (DN300-400) |
| 519/531 | 16"-24" (DN400-600) |
| 619/631 | 24"-48" (DN600-1200) |

Flow Rates (approx.)
19tip = 1.1 L / min.
31tip = 2.8 L / min.

Note: Fluid pressure at tip approx. 3,500 psi.



| (approx.) | |
|-----------|-----------------|
| 10% | Kit Application |
| 15% | 20" + pipe OD |
| 25% | 14"-18" pipe OD |
| 35% | 2"-12" pipe OD |

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® R-60 (Burgundy) 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 contaminants.

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

Cure Times

| | |
|--|--------------|
| Pot Life: 4 Lbs (1.8 Kg) Kit, @ 25°C (77°F) | 20 minutes |
| Spray application | |
| Gel Time: 40 mils, @ 27°C (80°F) | 30 minutes |
| Dry Time: 40 mils, @ 27°C (80°F) | 105 minutes |
| 65 Shore "D" Reading: 40 mils, @ 27°C (80°F) | 4.20 hours |
| 75 Shore "D" Reading: 40 mils, @ 27°C (80°F) | 5.20 hours |
| Application Temp Range: | -30 to 100°C |
| | -20 to 212°F |
| Shelf Life (stored in specified conditions): | 2 years |

Ordering Information

Powercrete R-60 (Burgundy) is available in three (3) packaging options:

Drum

Part A: 40.4Gal/152.9Ltr (600Lb/272.2Kg)
Part B: 48.4G/183L (400Lb/181Kg)

Pail

Part A: 5Gal/19.1Ltr (75 Lb/34Kg)
Part B: 4.8G/18.3L (40Lb/18.1Kg)

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

20 Lbs / 9 Kg (1.4 Gal / 5.4 L)
10 Lbs / 4.5 Kg (0.7 Gal / 2.7 L)
4 Lbs / 1.8 Kg (0.3 Gal / 1.1 L)
2 Lbs / 0.9 Kg (0.14 Gal / 0.5 L)



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