

3M™ Scotchkote™ Fusion-Bonded Epoxy Coating 6233

Data Sheet

Product Description

3M™ Scotchkote™ Fusion-Bonded Epoxy Coating 6233 is a one-part, heat curable, thermosetting epoxy coating powder designed for corrosion protection of pipe.

Properties

| Property | Value |
|-------------------------|--|
| Specific Gravity | |
| Film | 1.36 |
| Powder | 1.44 |
| Coverage based on film | 141 ft ² /lb/mil (0.735 m ² /kg/mm) |
| Color | Govt. Color 14272/Green |
| 6233-4G | |
| Gel Time @ 400°F/205°C | 9.5 seconds ± 20% |
| Cure Time @ 450°F/232°C | 30 seconds |
| 6233-8G | |
| Gel Time @ 400°F/205°C | 17 seconds ± 20% |
| Cure Time @ 450°F/232°C | 90 seconds |
| 6233-11G | |
| Gel Time @ 400°F/205°C | 25 seconds ± 20% |
| Cure Time @ 450°F/232°C | 110 seconds |
| Shelf life @ 27°C/80°F | 12 months |

Temperature Operating Range

The Scotchkote 6233 coating, when properly applied, should perform in a satisfactory manner on pipelines operating between -100°F/-73°C to 230°F/110°C. For temperatures between +170°F/77°C to 230°F/110°C, laboratory tests indicate that the thicker coatings may improve the service capability. However, it is difficult to accurately predict field performance from the laboratory data due to the wide variation in actual field conditions. Soil types, moisture content, temperatures, coating thickness and other factors specific to the area all influence the coating performance and the upper temperature operating limit.

Scotchkote 6233 meets the requirements of AWWA C213 and C550.

3M™ Scotchkote™ Fusion-Bonded Epoxy Coating 6233 Test Data

| Property | Test Description | Typical Value |
|----------------------------|---|--|
| Impact | ASTM G14 (modified) 1/8 in (3.2 mm) thick plate 3/8 in (9.5 mm) thick plate | 160 in•lbs (18.1 J) 59 in•lbs (6.7 J) |
| Cathodic Disbondment | CAN/CSA-Z245.20-12.8 48 hours, 1.5 volt, 3% NaCl 149°F/65°C 28 day, 1.5 volt, 3% NaCl 73°F/23°C 28 day, 1.5 volt, 3% NaCl 149°F/65°C | 2.3 mm r 2.5 mm r 4.9 mm r |
| Hot Water Resistance | 24 hours, CAN/CSA-Z245.20-12.14, 203°F/95°C 48 hours, CAN/CSA-Z245.20-12.14, 167°F/75°C | 1 rating 1 rating |
| Bendability (Mandrel Bend) | <u>Temperature</u> 73°F/23°C -22°F/-30°C | <u>Pipe Diameters</u> <10.5 <19.1 |
| | <u>°/PD</u> 5.5 >3.0 | <u>% Elongation</u> 4.8 >2.6 |
| Compressive Strength | ASTM D 695 | >10,000 psi (705 kg/cm ²) |
| Penetration | ASTM G 17 -40° to 200°F/-40° to 93°C | 0 |
| Thermal Shock | -320° to 310°F/-195° to 154°C Coated pipe | No visible effects 10 Cycles |
| Dielectric Strength | 1180 V/mil/46 kV/mm | |

Note: The typical values in this data sheet are based on lab prepared samples. Values shown are not to be interpreted as product specifications.



Handling and Safety Precautions

Read all Health Hazard, Precautionary and First Aid, Material Safety Data Sheet, and/or product label prior to handling or use.

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Ordering Information/Customer Service

For ordering technical or product information, or a copy of the Material Safety Data Sheet, call:

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