



Scotchkote™

6233 Fusion-Bonded Epoxy Coating

Product Description

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

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.

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
6233-8G	
Gel Time @ 400°F/204°C	17 seconds ± 20%
Cure Time @ 450°F/232°C	90 seconds
6233-4G	
Gel Time @ 400°F/204°C	9.5 seconds ± 20%
Cure Time @ 450°F/232°C	30 seconds
6233-11G	
Gel Time @ 400°F/204°C	25 seconds ± 20%
Cure Time @ 450°F/232°C	110 seconds

3M Scotchkote 6233 Fusion-Bonded Epoxy Coating 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)	Temperature Pipe Diameters °/PD	% Elongation
	73°F/23°C <10.5 5.5	4.8
	-22°F/-30°C <19.1 >3.0	>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
Dialectric 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 statements found in the Material Safety Data Sheet, and/or product label prior to handling or use.

Ordering Information/Customer Service

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

Phone: 800/722-6721 or 512/984-1038

Fax: 877/601-1305 or 512/984-6296

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