

3M™ Scotchkote™ Fusion-Bonded Epoxy Coating 6233W

Data Sheet



Product Description

3M™ Scotchkote™ Fusion-Bonded Epoxy Coating 6233W is a one-part, heat curable, thermosetting epoxy coating powder designed for corrosion protection of drinking water pipes, valves, fittings, and couplers.

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
6233W-4G	
Gel Time @ 400°F/205°C	9.5 seconds ± 20%
Cure Time @ 450°F/232°C	40 seconds
6233W-8G	
Gel Time @ 400°F/205°C	17 seconds ± 20%
Cure Time @ 450°F/232°C	90 seconds
6233W-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 6233W 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 6233W meets the requirements of AWWA C213 and C550.

Scotchkote 6233W has been tested and certified to NSF/ANSI Standard 61, Drinking Water System Components. For NSF certified applications, the max approved thickness is 50 mil (1.25 mm), and the max approved operating temperature is 140°F/60°C.

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

Property	Test Description	Typical Value
Impact	ASTM G14 (modified)	
	1/8 in (3.2 mm) thick plate	160 in•lbs (18.1 J)
	3/8 in (9.5 mm) thick plate	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	2.3 mm r
	28 day, 1.5 volt, 3% NaCl 73°F/23°C	2.5 mm r
	28 day, 1.5 volt, 3% NaCl 149°F/65°C	4.9 mm r
Hot Water Resistance	24 hours, CAN/CSA-Z245.20-12.14, 203°F/95°C	1 rating
	48 hours, CAN/CSA-Z245.20-12.14, 167°F/75°C	1 rating
Bendability (Mandrel Bend)	<u>Temperature</u>	<u>% Elongation</u>
	73°F/23°C	4.8
	-22°F/-30°C	>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	No visible effects
	Coated pipe	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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