



Scotchkote™

Fusion-Bonded Epoxy Coating 226N/226N⁺

Product Description

3M™ Scotchkote 226N/226N⁺ 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 226N/226N⁺ 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	
	226N	226N ⁺
Specific Gravity		
Film	1.36	1.44
Powder	1.44	1.56
Coverage based on film	141 ft ² /lb/mil (0.735 m ² /kg/mm)	133 ft ² /lb/mil (0.694 m ² /kg/mm)
Color	Govt. Color 14272/Green	Govt. Color 14272/Green
Shelf Life at 27°C	12 months	12 months
Particle size larger than 250 µm	<0.2%	<0.2%
Particle size larger than 150 µm	<3.0%	<3.0%
Moisture Content	<0.3% at manufacture	<0.3% at manufacture
Gel Time at 205°C		
226N/226N ⁺ 4G	7.6 - 11.5 seconds	7.6 - 11.5 seconds
226N/226N ⁺ 8G	17 - 23 seconds	17 - 23 seconds
226N/226N ⁺ 11G	24 - 36 seconds	24 - 36 seconds
Cure Time at 232°C		
226N/226N ⁺ 4G	40 seconds	40 seconds
226N/226N ⁺ 8G	90 seconds	90 seconds
226N/226N ⁺ 11G	110 seconds	110 seconds

3M™ Scotchkote 226N/226N⁺ Fusion-Bonded Epoxy Coating Test Data

Property	Test Description	Typical Value	
		226N	226N ⁺
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	19 in•lbs (2.2 J)	25 in•lbs (2.9 J)
Cathodic Disbondment	CAN/CSA-Z245.20-12.8		
	24 hours, 3.5 volt, 3% NaCl 65°C	2.5 mm r	2.5 mm r
	28 day, 1.5 volt, 3% NaCl 73°F/23°C	2.5 mm r	2.5 mm r
Hot Water Resistance	24 hours, CAN/CSA-Z245.20-12.14, 203°F/95°C	1 rating	1 rating
	48 hours, CAN/CSA-Z245.20-12.14, 167°F/75°C	1 rating	1 rating
	90 days, CAN/CSA-Z245.20-12.14, 167°F/75°C	2 rating	1 rating
Bendability (Flexibility) (Mandrel Bend)	Temperature	Pipe Diameters	%/PD
	73°F/23°C	10.5	5.5
	-22°F/-30°C	<19.1	>3.0
Compressive Strength	ASTM D 695	13,000 psi (910 kg/cm ²)	13,500 psi (950 kg/cm ²)
Penetration	ASTM G 17	0	0
	-40° to 200°F/-40° to 93°C		
Thermal Shock	-320° to 310°F/-195° to 154°C	No visible effects	No visible effects
	Coated pipe, 10 cycles		
Dielectric Strength	ASTM D1000	>1100 V/mil(43kV/mm)	>1100 V/mil(43kV/mm)
Gouge	50 Kg, NACE probe	264 µm	240 µm
	Penetration Depth		

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 & 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.

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Corrosion Protection Department

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Ordering Information/Customer Service

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

Phone: 800/722-6721 or 512/984-9385

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