



# Scotchkote™

## 6258 Fusion Bonded Epoxy Coating

### For Pipelines Operating at High Temperature

#### Product Description

3M™ Scotchkote™ 6258 Fusion Bonded Epoxy Coating is a one-part, heat curable, thermosetting epoxy coating designed for corrosion protection of pipe. Scotchkote 6258 utilizes special ingredients that promote superior adhesion to steel and epoxy novolac resins that significantly raise the glass transition temperature of the coating. These benefits make Scotchkote 6258 especially suitable as a base coating for 3 layer polypropylene pipeline coating systems operating at elevated temperatures.

The epoxy is applied to preheated steel as a dry powder which melts and cures to a uniform coating thickness. This bonding process provides excellent foundation for overcoating with polypropylene. It is supplied in several gel times to accommodate application to all pipe sizes and is compatible with intermediate adhesive tie layers.

#### Features

- High temperature operating performance
- Excellent cathodic disbondment resistance
- Excellent hot water immersion resistance
- Excellent adhesion to polypropylene and polyethylene adhesives
- Broad gel/cure range for application to all pipe sizes
- Consistency of application and performance properties
- Can be applied to girthwelds in the field

#### General Application Steps

1. Remove oil, grease and loosely adhering deposits.
2. Abrasive blast clean the surface to SSPC-SP10 or NACE no. 2 near-white.
3. Preheat cleaned pipe to approximately 400° F (204° C).
4. Deposit Scotchkote 6258 powder by electrostatic spray or flocking to the specified coating thickness.
5. Apply adhesive and topcoats to the specified coating thickness.
6. Allow to cure according to cure specifications.
7. Visually and electrically inspect for holidays after the coating has cooled to 200° F (93° C) or lower.
8. Repair all holidays.

#### Cure Specifications

Scotchkote 6258 must be cured in accordance with the cure guide to achieve maximum performance properties. Cure by residual heat. Post bake normally not required; however, extra-light wall pipe may require additional curing. Cure time is based on the temperature of the steel from application point of the powder to the forced air or water cool down.

#### Cure Guide

Temperature of the Article at Time of Powder Application	Minimum Time To Quench
183°C (361°F)	345 seconds
204°C (399°F)	150 seconds

#### Temperature Operating Range

Scotchkote 6258, when properly applied, should perform in a satisfactory manner on pipelines operating between -45°C and 130°C. However, it is difficult to accurately predict field performance from laboratory data due to the wide variations in actual field conditions. Soil types, moisture content, temperatures, coating thickness and other factors peculiar to the area all influence the coating performance and the upper temperature operating limit.

#### Properties

Property	Value
color	green
Specific gravity-powder (air pycnometer)	1.45
Shelf life at 25° C	12 months

#### Gel Time

at 182° C	26 seconds
at 193° C	20 seconds
at 204° C	11 seconds
at 232° C	4 seconds
Minimum explosive concentration	102 g/m <sup>3</sup>

## 3M™ Scotchkote™ 6258 Fusion Bonded Epoxy for High Temperature Test Data - Coatings

Property	Test Description	Results
Hardness	Buchholtz	> 85
Moisture Content	Karl Fisher	0.25 %
IR Spectrum		see curve
DSC		see curve
Glass transition temperature	DMA	166° C
Elongation	ASTM D 882	1.2 %
Tensile Strength		6155 psi (42.43 Mpa)
Flexibility		
at 23°C		1.7° / PD
at 0°C		1.3° / PD
Adhesion to steel	DIN 30671	Passes
Peel adhesion (3 layer polypropylene system)		
at 20°C		20-30 N/mm
at 100°C		> 10N/mm
Cathodic disbondment (3 layer polypropylene system)		
3 days	at 65°C	1.8 mmr
7 days	at 65°C	2.1 mmr

### Handling and Safety Precautions

Read all Health Hazard, Precautionary, and First Aid statements found in the Material Safety Data Sheet, and/or product label of chemicals 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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