



Scotchkote™

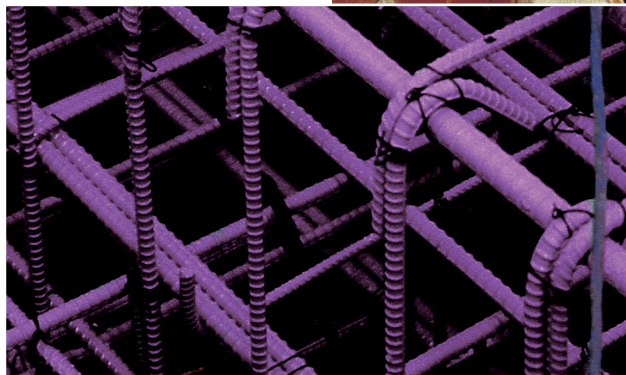
Fusion Bonded Epoxy Coating 426

Product Description

3M™ Scotchkote™ Fusion Bonded Epoxy Coating 426 is a one-part, heat curable, thermosetting epoxy coating designed for improved corrosion protection of reinforcing steel in severe marine and corrosive environments. 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 adhesion and coverage on concrete reinforcing steel bar and other steel members which have been prefabricated to any size or shape. Scotchkote 426 coating is resistant to cathodic disbondment and corrosive agents such as deicing salts, airborne salt spray, sea water, harsh chemicals, acid rain, carbonation, contaminated aggregate and concrete additives.

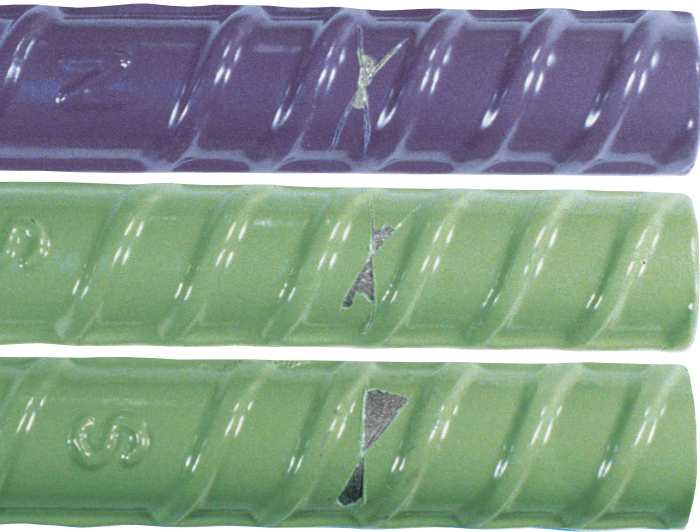
Features

- Provides superior resistance from disbondment without pretreatments.
- Superior for prefabricated steel reinforcement.
- Good corrosion protection, even under hot, wet, salty conditions.
- Easy visual inspection of reinforcement surfaces.
- Color coded for easy identification of prefabricated reinforcement.
- Storage in all climatic conditions with minimal damage.
- Consistent performance test results under all application conditions.
- Resistance to cathodic disbondment and hot-water immersion adhesion loss.
- Improved UV resistance.
- Resists deicing salts.
- Meets CAN/CSA-Z 245.20-M92 and British Gas GBE/CW6 without pretreatment.
- Meets ASTM A 775/A 775M and AASHTO M 284, AASHTO M 254, and ASTM A 884, except flexibility.
- Meets ASTM A 934/A 934M.



Test Data - Coatings

Hot Water Immersion Resistance
167°F (75°C), 48 hours

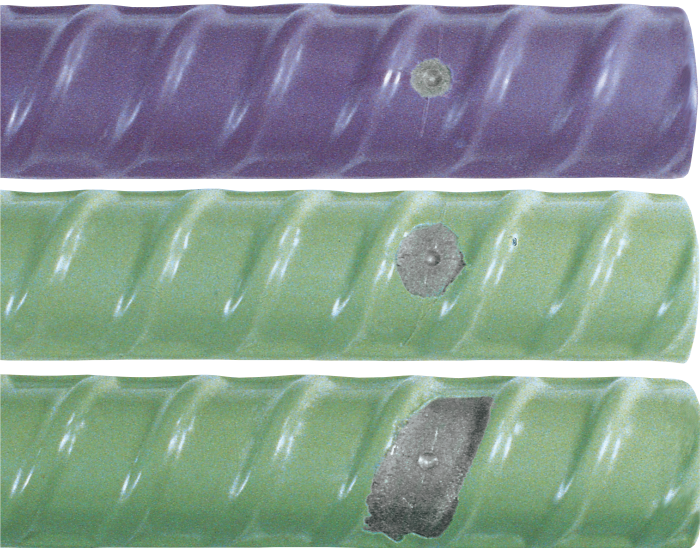


Scotchkote 426 rebar coating
British Gas GBE/CW6 0 mm
CSA Z 245.20 1 Rating

Flexible Rebar Coating with Surface Treatment
British Gas GBE/CW6 6 mm
CSA z 245.20 3 Rating

Flexible Rebar Coating
British Gas GBE/CW6 12 mm
CSA Z 245.20 5 Rating

Cathodic Disbondment (Salt Crock) Resistance
150°F (66°C), 40 hours, 3% NaCl, 3 volts



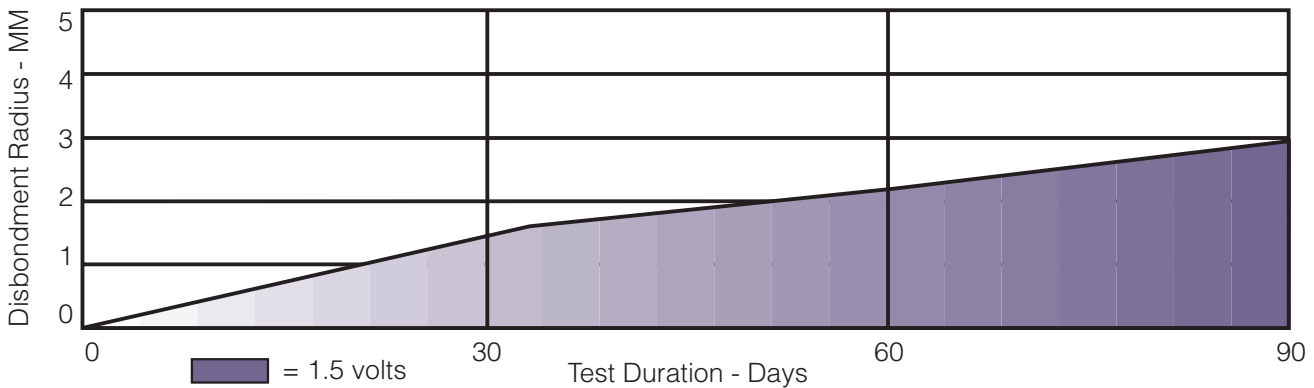
Scotchkote 426 rebar coating
2 mmr disbondment

Flexible Rebar Coating with Surface Treatment
5 mmr disbondment

Flexible Rebar Coating
15 mmr disbondment

Cathodic Disbondment

Scotchkote 426 at 1.5V: CDT; 73°F, 3% ASTM G-8 Electrolyte



Test Data - Coatings

Property	Test Description	Results
Chemical Resistance	ASTM A 934/A 934M 45 days at 75° F (24°C); 3 molar (25%) CaCl ₂ ; 3 molar (10.7%) NaOH; Saturated Ca(OH) ₂	No blistering, softening, bond loss or holidays.
Resistance to Applied Voltage (Cathodic Disbondment or Salt Crock)	Modified ASTM G-95, 175°F (79°C); 3V, 3% NaCl, 14 days	9.5 mmr
	ASTM A 934 150°F (66°C); 3V, 3% NaCl, 48 hours	4.3 mmr
	ASTM A 934 74°F (23°C); 1.5 V, 3% NaCl, 168 hours	0.8 mmr
Salt Spray Resistance	ASTM A 934 95°F (35°C); 5% NaCl, 800 hours	< 1 mm
Chloride - Permeability	ASTM A 934 75°F (24°C), 45 days	1.41 x 10 ⁻⁵ molar
Coating Flexibility	ASTM A 934 No. 6 (No. 20) Rebar, 6° around a 6 in. (150 mm) diameter mandrel, completed within 5 seconds. 75°F (24°C)	No cracking visible on outside radius
Relative Bond Strength in Concrete	ASTM A 944	> 80% of mean strength for uncoated bar
Abrasion Resistance	ASTM D 1044 CS-17, 1000 g weight, 5000 cycles	0.1 g. loss
	ASTM A 934, 1000 g weight, 1000 cycles	19 mg.
Impact	ASTM A 934/A 934M	No shattering, cracking or bond loss outside impact area
Water Imersion	British Gas GBE/CW6 122°F (50°C)	7 days, 1.0 mm disbondment 28 days, 2.2 mm disbondment
Hardness	Knoop Hardness	> 20

General Application Steps

- A. Remove oil, grease and loosely adhering deposits.
- B. Abrasive blast clean the surface to NACE No. 2/SSPC-SP10 ISO 8501:1, Grade SA 21/2 near white finish.
- C. Preheat metal to approximately 450°F (232°C).
- D. Deposit Scotchkote 426 coating by electrostatic spray to the thickness required. Some overspray may occur.
- E. Allow to cure according to Cure Specifications.
- F. Electrically inspect for holidays after coating has cooled to 250°F (121°C) or lower.



Incoming
Rust

Blast
Clean

Heat

Apply

Cure

Cure Specifications

Scotchkote 426 coating must be cured according to the following schedule in order to achieve maximum performance properties. Cure time is based on metal temperature.

Application Temperature	Minimum Time to Cure
450°F/232°C	
Scotchkote 426 Fast	30 seconds
Scotchkote 426 Long Gel	90 seconds

Properties

Property	Value
Color	Violet
Specific Gravity Powder	1.47 ± .03
Coverage based on specific gravity	131 ft ² /lb/mil (0,681 m ² /kg/mm)
Gel Time	400°F(204°C) 450°F(232°C)
Scotchkote 426 Fast	4-10 seconds 2-5 seconds
Scotchkote 426 Long Gel	13-20 seconds 6-10 seconds

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.

3M and Scotchkote are trademarks of 3M Company.

Important Notice

All statements, technical information, and recommendations related to 3M's products are based on information believed to be reliable, but the accuracy or completeness is not guaranteed. Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use. Any statements related to the product which are not contained in 3M's current publications, or any contrary statements contained on your purchase order shall have no force or effect unless expressly agreed upon, in writing, by an authorized officer of 3M.

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 512/9393

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

Warranty; Limited Remedy; Limited Liability.

Because conditions of product use are outside of our control and vary widely, the following is made in lieu of all express or implied warranties: this product will conform to 3M's published product specifications and be free from defects in material and manufacture on the date of your purchase. **3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** If this product is defective upon your receipt, your exclusive remedy shall be, at 3M's option, to replace the 3M product or refund the purchase price of the 3M product. **Except where prohibited by law, 3M will not be liable for any indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.**



Corrosion Protection Products

6801 River Place Blvd.
Austin, TX 78726-9000
<http://www.3M.com/corrosion>

Please recycle. Printed in USA.
© 3M 2010. All rights reserved.
80-6111-8366-8 Rev. B