

3M™ Scotchkote™ Epoxy Coating EP2306 HF

Data Sheet and Application Guide

Product Description

Scotchkote Epoxy Coating EP2306 HF has been specifically developed as an internal lining for pipelines transporting sweet gas to provide maximum flow, which has been confirmed by independent testing.

Product Features

Scotchkote Epoxy Coating EP2306 HF combines good application characteristics with excellent corrosion protection and chemical resistance. The cured coating is designed to withstand hydrostatic testing and pigging operations in service and make a very significant contribution to increased gas flow and associated financial benefits. The use of the product on gas pipelines has been the subject of numerous presentations and papers. The cost savings achieved with this coating have been reproduced worldwide. Scotchkote Epoxy Coating EP2306 HF conforms to most major international specifications for gas pipeline coatings.

- **Adhesion**—Excellent to blast cleaned surfaces.
- **Corrosion and Chemical Resistance**—Meets requirements of many international standards/specifications for sweet gas service.

General Application Steps

1. Remove oil, grease and loosely adhering deposits.
2. Abrasive blast clean steel surfaces to NACE No. 2/SSPC-SP10 near white metal, ISO 8501:1, Grade SA2½.
3. Apply Scotchkote Epoxy Coating EP2306 HF at the specified thickness.
4. Allow to cure.
5. Visually or electrically inspect the coating for defects.
6. Repair all defects.

Properties

| Property | Value |
|---|--|
| Colour | Red Oxide |
| Ratio | 1:1 By volume 100:77 By weight |
| Drying & Cure times at 20°C (68°F) | |
| Usable Life | 8 hours |
| Touch Dry | 2 hours |
| Hard Dry | 16 hours |
| Full Cure | 7 days |
| Volume Solids | 50% |
| Specific Gravity (Average Mixed) | 1.15 |
| V.O.C. (As Supplied) | 440g/litre |
| Film Thickness (Typical) | Wet: 150 microns Dry: 75 microns Note: The actual thickness to be applied should be agreed between the specifier and the manufacturer dependant on operational performance criteria and may be higher or lower than the quoted typical value. |
| Theoretical Coverage Rate | 6.67 sq metres per litre at 75 microns dft. |
| Standards Met | |
| USA | API RP 5L2 |
| France | Gaz de France |
| Italy | SNAM |
| International | ISO 15741 |
| UK | CM1/CM2 (National Grid Register of Qualified Coatings) |
| Performance Data | |
| Abrasion Resistance | 16mgm weight loss per 1000 cycles-5N load-CS10 wheel (ASTM D4060) |
| Dry Heat Resistance | 100°C (212°F) (ASTM D2485) |
| Adhesion | No lifting or loss of adhesion (API RP 5L2 Appendix 4) |
| Hardness Testing | Average Hardness (BIRV) 100-Elcometer 3095 Bucholz Hardness Tester @ 20°C (DIN 53.253) |
| Salt Fog Resistance | Excellent, unaffected after 500 hours exposure (ASTM B117) |
| Bend Test | No cracking, flaking or loss of adhesion (ASTM D522-4) |
| Methanol/Water Immersion | Pass (API RP 5L2 Table 3.5) |



Application Procedures for 3M™ Scotchkote™ Epoxy Coating EP2306 HF

Surface Preparation

Steel surfaces should be abrasive blasted to NACE No 2/SSPC-SP10 near white metal, ISO 8501:1 Grade Sa2½. The blast profile is generally specified by the client; a typical profile is 35–60 microns.

Mixing

The contents of the Part A (Base) container should be stirred, and while stirring, the contents of the Part B (Activator) container should be added with stirring continuing until a homogenous mix is achieved.

Application

Do not apply when relative humidity exceeds 90% or when surfaces to be coated are less than 3°C above the dew point. The preferred method of application for Scotchkote Epoxy Coating EP2306HF is by plural feed airless spray and is supplied ready for use by this method, no thinning is required. Standard airless spray, brush or roller can also be used.

- Airless Spray Minimum 30: 1 pump ratio
- Tip Size 15-21 Thou orifice;
- Tip pressure minimum 2500 psi (175 bar)

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.

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Important Notice

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

Warranty; Limited Remedy; Limited Liability.

3M warrants that the 3M™ Scotchkote™ Product will conform to 3M published specifications upon shipment. If the product is proven not to have met the specifications your exclusive remedy within 12 months of sale by 3M of the product and 3M's sole obligation will be, at 3M's option, to replace the Product or to refund the purchase price of the Product. Except where prohibited by law, this warranty is made in lieu of all other warranties, express or implied, including, but not limited to, any implied warranty of suitability or fitness for a particular purpose, or those arising from a course of dealing, custom or usage or trade.

3M has no obligation under this warranty with respect to any product that has failed due to inadequate or improper storage, handling, surface preparation, application, or maintenance; failure to follow product instructions or recommendations or alteration or damage to the Product caused by accident, neglect, or misuse. OTHER THAN IN THE CASE OF DEATH OR PERSONAL INJURY CAUSED BY ITS NEGLIGENCE AND EXCEPT WHERE PROHIBITED BY LAW, IN NO EVENT SHALL 3M BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL LOSS OR DAMAGES (INCLUDING LOST PROFITS) ARISING FROM THIS PRODUCT, REGARDLESS OF THE LEGAL THEORY ASSERTED.

Clean all equipment immediately after use with 3M™ Scotchkote™ Thinners 1075.

Note: When airless spray is being used, excessively high tip spraying pressures should be avoided. The minimum pressure at the pump conducive with good atomization should be used.

Packaging and Storage

Supplied in either 5 & 20 litre packs and 200 litre drums.

Use within 2 years of date of manufacture. Store in original sealed containers at temperatures between 5°C and 32°C. Short term exposure to temperatures outside this range will not be deleterious to product quality.

Ordering Information/Customer Service

For ordering, technical and product information or to request a copy of the Material Safety Data Sheet, call +44 (0)1609 780170 or fax +44 (0)1609 783762 (Sales) or 788718 (Technical).

For emergencies, please contact +44 (0)1344 858000.



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