

3M™ Scotchkote™ Epoxy Coating 151E

Data Sheet and Application Guide

Product Description

Scotchkote Epoxy Coating 151E has been specifically developed as a 100% solids coating for protection of steelwork in tidal and splash zones.

Product Features

- Combines good application characteristics with excellent corrosion protection
- Suitable for application by brush and plural feed hot airless spray.
- Suitable for use on both steel and concrete surfaces.

Adhesion: Excellent to correctly prepared surfaces.

Corrosion Resistance: Excellent even under aggressive immersion conditions.

Abrasion Resistance: Excellent resistance to abrasion and mechanical damage.

General Application Steps

1. Remove oil, grease and loosely adhering deposits.
2. Abrasive blast clean steel surfaces to NACE No. 2/SSPC-SP10, ISO 8501:1, Grade SA2½ near white metal. Scarify or lightly blast concrete surfaces.
3. Apply Scotchkote Epoxy Coating 151E coating 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	Light Grey
Ratio	2:1 By volume 2:1 By weight
Drying & Cure times at 20°C (68°F)	
Touch Dry	8 hours
Hard Dry	16 hours
Minimum Overcoating	8 hours
Maximum Overcoating	24 hours
Full Cure	7 days
Volume Solids	100%
V.O.C (As Supplied)	Nil
Specific Gravity (Average Mixed)	1.36
Film Thickness (Typical)	Wet/Dry 250 microns.
Note: Normally applied as a two coat system to achieve a nominal dry film thickness of 500 microns. 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	4 sq metres per litre at 250 microns dft
Performance Data	
Abrasion Resistance	40mgm weight loss per 1000 cycles - 1kg load - CS17 Wheel (ASTM D4060)
Impact Resistance	2.6 Joules (ASTM G14)
Dry Heat Resistance	135°C (ASTM D2485)
Direct Pull Adhesion	63kg/cm ² (900 psi) - Steel 35kg/cm ² (500 psi) - Concrete (Concrete Failure) (ASTM D4541)
Water Vapour Permeability	3.75x10 ⁻⁶ perm.cm (ASTM D1653)
Salt Fog Resistance	Excellent, unaffected after 5,000 hours exposure (ASTM B117)
Cathodic Disbondment	9.25mm (28 days @ 20°C) (ASTM G8)



Application Procedures for 3M™ Scotchkote™ Epoxy Coating 151E

Surface Preparation

Steel Surfaces - steel surfaces should be abrasive blasted to a minimum Standard of Sa2½ - BS 7079: Part A1 1989. The blast profile is generally specified by the client, a typical profile is 75-100 microns. Where blast cleaning cannot be carried out the surface should be mechanically scraped to remove all loose scale and produce a surface which is clean, dry and free from rust or dust.

Concrete Surfaces

Surfaces should be lightly abrasive blasted or mechanically scarified, taking care not to expose the aggregate. All dust and loose residue should then be removed.

Product Mixing

Scotchkote Epoxy Coating 151E is a two component material comprising Part A (Base) and Part B (Activator) components which must be mixed together prior to use. Stir the contents of the Part A (Base) component, continue stirring and gradually add the total contents of the Part B (Activator) container, stir the combined mix until completely homogeneous. The mixed materials should be used within 45 minutes of mixing at 20°C. This time will be reduced at higher temperatures and extended at lower temperatures.

Application Procedures

Minimum temperature for application and subsequent curing is 5°C.

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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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.

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Scotchkote Epoxy Coating 151E is primarily designed for application by brush or roller. Good quality brushes or short to medium pile rollers should be used for these methods of application. The product should be applied to give a uniform even coating thickness and optimum results are achieved when both material and substrate temperatures above 15°C.

Scotchkote Epoxy Coating 151E can also be applied by plural feed airless spray. A material temperature of 30-40°C is required, which should be attained by heating the Part A (Base) and Part B (Activator) components.

Airless Spray Minimum 45: 1 pump ratio

Tip pressure typically 4000 psi

Tip Size 19-25 thou orifice;

Clean all equipment immediately after use with Scotchkote Thinners SA65.

Health and Safety

1. Adequate ventilation must be provided during use
2. Undue contact with the skin should be avoided.

NOTE: Full Health & Safety Data is available from 3M

Packaging and Storage

Supplied in 1 litre packs or the Part A (Base) and Part B (Activator) supplied separately in 18 and 180 litre units, (2 Part A (Base) and 1 Part B (Activator))

Use within 5 years of date of manufacture. Store in original sealed containers at temperatures between 5°C and 32°C.

ALWAYS PROTECT FROM FROST DURING STORAGE AND USE.

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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