

3M™ Scotchkote™ Epoxy Coating 152LV

Data Sheet and Application Guide

Product Description

Scotchkote Epoxy Coating 152LV has been specifically developed as a surface tolerant anti corrosive coating for steel structures.

Product Features

- Combines good application characteristics with excellent corrosion protection and chemical resistance.
- Is designed for application by brush at thicknesses of up to 1mm in a single application. The product can also be applied by plural feed hot spray.
- Is suitable for use on grit blasted steel, mechanically prepared steelwork or high pressure water cleaned steel.
- Satisfies Network Rail Line Specification RT98, now NR/L3/CIV/039.
- **Adhesion** - Excellent to both blast cleaned and mechanically prepared surfaces.
- **Corrosion Resistance** - Excellent even under sea water immersion conditions.
- **Chemical Resistance** - Unaffected by short term contact with a wide range of chemicals.
- **Temperature Resistance** - Suitable for use up to 100°C dry heat.

General Application Steps

1. Remove oil, grease, loosely adhering deposits and all visible water.
2. Appropriately prepare the surface.
3. Apply Scotchkote Epoxy Coating 152LV 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	Grey or black, other colours subject to minimum batch quantity Note: Not colour stable, where a colour stable finish is required it must be overcoated with an appropriate top coat.
Ratio	3:1 by volume
Drying & Cure times at 20°C (68°F)	
Usable Life	50 minutes
Touch Dry	12 hours
Hard Dry	16 hours
Minimum Overcoating	16 hours
Maximum Overcoating	48 hours with itself
Full Cure	7 days
Volume Solids	99.2%
Specific Gravity (Average Mixed)	1.6
Film Thickness (Typical)	Wet/Dry 250-1000 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. Detailed application instructions in the form of system recommendations are available on request.	
Theoretical Coverage Rate	2 sq metres per litre at 500 microns dft.
Performance Data	
Abrasion Resistance	40mgm weight loss per 1000 cycles - 1kg load - CS17 wheel (ASTM D4060)
Impact Resistance	2.6 joules (23 in lbs) (ASTM G14)
Dry Heat Resistance	100 (ASTM D2485)
Direct Pull Adhesion	39Mpa (5700 psi) cohesive failure of coating - grit blasted steel (ASTM D4541)
Pencil Hardness	2H (ASTM D3363)
Salt Fog Resistance	Excellent, unaffected after 5,000 hours exposure (ASTM B117)
Scrub Resistance	>10,000 cycles (ASTM D2486)
Cathodic Disbondment	2mm 28 days at 25°C (ASTM G8)
Humidity Resistance	Unaffected 5,000 hours exposure (BS 3900 Part F2)
Scratch Resistance	No Failure 2.0kg load (BS 3900 Part E2)
Water Vapour Permeability	1.2gm.mm/m ² /24hrs (ASTM D1653)



Application Procedures for 3M™ Scotchkote™ Epoxy Coating 152LV

Surface Preparation

Surfaces should be clean and free from oils, grease, loosely adherent deposits and visible water.

Optimum performance will be obtained on surfaces prepared in accordance with NACE No 2/SSPC-SP10 near white metal, ISO 8501-1 grade Sa2½ or equivalent. Where blast cleaning is not possible, surfaces should be prepared by mechanical wire brushing, grinding or high pressure water jetting (typically 5000 psi) to achieve ISO 8501-4 St2-St3/SSPC-SP2-3 taking particular care when cleaning badly pitted surfaces.

Previously coated surfaces should be abraded using 180 grade emery paper. Any loosely adherent coating must be removed and surrounding areas feather edged.

Product Mixing

The material is a two component material comprising Part A (Base) component and Part B (Activator) component which must be mixed together prior to use. Both components should be thoroughly stirred to incorporate any slight separation prior to mixing. Whilst continually stirring Part A (Base), Part B (Activator) component should be slowly added with mixing continuing until completely homogeneous.

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.

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Application Procedures

Application can be carried out at temperatures down to 0°C, however product curing stops below 5°C, cure will resume when temperature rises.

The product is primarily designed to be applied by brush. Prior to full application, a small test area should be carried out to establish a technique to ensure that the correct thickness is achieved. Even brush strokes should be used to give a uniform coating thickness. For information regarding plural feed hot spray application contact 3M Northallerton Technical Information Centre.

Clean all equipment immediately after use with 3M™ Scotchkote™ Thinners SA65.

Packaging and Storage

Supplied in 5 litre units,

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

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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152LV-0313