

3M™ Scotchkote™ WB Epoxy Coating EA5WB

Data Sheet and Application Guide

Product Description

Scotchkote WB Epoxy Coating EA5WB is a member of the range of Scotchkote waterborne coatings and has been specifically developed for original equipment manufacture, particularly within the water, rail, automotive and commercial transport industries.

Product Features

- Combines good application characteristics with excellent corrosion protection and chemical resistance.
- As a single coat, it offers proven long term corrosion protection of steel, stainless steel and aluminium substrates.
- Delivers substantial cost savings from reduction in process time compared to multicoat systems.
- Tested for limited fire hazard performance. Compliance with BS6853 Code of Practice.
- Widely used throughout the Rail Industry and increasingly in Original Equipment Manufacture involving other forms of passenger transportation, heavy engineering fabrication and civil engineering work especially for underground and confined locations.
- **Corrosion Resistance** - Excellent corrosion resistance.
- **Abrasion** - Good resistance to abrasion and mechanical damage.
- **Adhesion** - Excellent on correctly prepared surfaces.
- **Chemical Resistance** - The fully cured coating offers outstanding resistance to aqueous solutions and a wide range of industrial chemicals.
- **Temperature resistance** - Dry service temperature range up to 100°C.

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, lightly abrade aluminium.
3. Apply Scotchkote WB Epoxy Coating EA5WB 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	Blue, Black. Other colours manufactured to order.
Note: Not colour stable, where a colour stable finish is required it must be overcoated with an appropriate top coat.	
Ratio	5:1 by volume.
Drying & Cure times at 20°C (68°F)	
Usable Life	4 hours
Touch Dry	1 hour
Hard Dry	24 hours
Dry for Packing	72 hours
Full Cure	7 days
Volume Solids	45%
Specific Gravity (Average Mixed)	1.24
V.O.C Content	120g/litre
Note: Thinning for spray application will reduce the applied V.O.C.	
Film Thickness (Typical)	Wet 180 microns. Dry 80 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	5.6 sq metres per litre at 80 microns dft.
Performance Data	
Abrasion Resistance	25mgm weight loss per 500 cycles - 1kg load - CS10 wheel (ASTM D4060)
Impact Resistance	No Failure @ 20°C No Failure @ -15°C (BS3900 -E3)
Dry Heat Resistance	100°C (212°F) (ASTM D2485)
Direct Pull Adhesion	3.8Mpa (550 psi) (Abrasives blasted steel) (ASTM D4541)
Salt Fog Resistance	Excellent, unaffected after 2,000 hours exposure (ASTM B117)
Tensile Shear Adhesion	13.8Mpa (2000 psi) (ASTM D1002)
Flexibility	Depth of indentation 5mm (BS 3900 -E4)
Humidity Resistance	Unaffected 1500 hours exposure (BS 3900 - F2)
Fire Resistance	Class 1 (BS476 Part 7), Class 0 (BS 476 Part 6)
Chip Resistance	6A-6B-10C-10D (ASTM D3170)



Application Procedures for 3M™ Scotchkote™ Epoxy Coating EA5WB

Surface Preparation

All surfaces should be thoroughly degreased.

Abrasive blast clean steel surfaces to NACE No. 2/SSPC-SP10 near white metal, ISO 8501:1, Sa2½ BS 7079 Part A1 1989/ISO 8501-1: 1988 - with a medium profile - 35 microns average.

Aluminium – Surfaces should be abraded with fine abrasive paper or Scotch-brite™ Pads.

Application Procedures

Mixing

Stir the contents of the Part A (Base) component. Continue stirring whilst gradually adding the total contents of the Part B (Activator) container. Continue stirring until a homogeneous mix is obtained.

Note: When mixing complete units of product, the use of a slow or variable speed mechanical mixer is beneficial in terms of ease and complete mixing.

Application

- Do not apply when relative humidity exceeds 85% or when the surface to be coated is less than 3°C above the dew point.
- For optimum results a minimum material and substrate temperature of 15°C is necessary.
- Primed surfaces should be clean, dry and free from oil and grease.

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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Method

Scotchkote WB Epoxy Coating EA5WB can be applied by air assisted airless or airless spray equipment. Full details are available from the Technical Information Centre at 3M Northallerton.

Ideally, dedicated spray equipment should be used for applying waterborne coatings. If this is not possible, equipment should be first flushed with a solvent related to the previous solvent based coating. This should then be followed by a second flushing using 3M™ Scotchkote™ Cleaner 3000 then by rinsing through with clean water. After use, wash out with clean water followed by flushing with Scotchkote Cleaner 3000.

Packaging and Storage

Supplied in 5 litre packs or Part A (Base) and Part B (Activator) supplied individually in 20 litre containers (5 Part A (Base) and 1 Part B (Activator)).

Use within 2 years of date of manufacture. Store in original sealed containers at temperatures between 5°C and 32°C. 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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