

3M™ Scotchkote™ Epoxy Coating 162HB

Data Sheet and Application Guide

Product Description

Scotchkote Epoxy Coating 162HB has been specifically developed as a 100% solids lining for the internals of pipes, tanks, vessels and other equipment in contact with fresh water, sea water, oil and effluent. The product can also be used on externals of pipes where an abrasion-resistant system is required.

Product Features

Scotchkote Epoxy Coating 162HB combines good application characteristics with excellent corrosion protection and chemical resistance.

Scotchkote Epoxy Coating 162HB is designed for application in a single high build coat of up to 1mm, by plural feed hot airless spray.

Scotchkote Epoxy Coating 162HB is suitable for use on both steel and concrete surfaces.

- **Adhesion**—Excellent to both blast cleaned and mechanically scraped surfaces.
- **Corrosion Resistance**—Excellent even under aggressive immersion conditions.
- **Chemical Resistance**—Virtually unaffected by crude oil and a wide range of industrial chemicals and effluent (e.g. crude oil, raw water and dirty water).
- **Temperature Resistance**—Suitable for use up to 80°C in immersion service conditions (aqueous solutions) and up to 100°C in dry service conditions.

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. Scarify or lightly blast concrete surfaces and seal with 3M™ Scotchkote™ Epoxy Sealer SP 810.
3. Apply Scotchkote Epoxy Coating 162HB 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 or Red Note: Not colour stable, where a colour stable finish is required it must be overcoated with an appropriate top coat.
Ratio	2:1 By volume
Drying & Cure times at 20°C (68°F)	
Pot (Usable) Life	45 minutes at 40°C
Touch Dry	6 hours
Hard Dry	16 hours
Full Cure	7 days
Volume Solids	100%
Specific Gravity (Average Mixed)	1.57
Film Thickness (Typical)	Wet/Dry: 500 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	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	8 joules (71 in lbs) - ASTM G14
Heat Resistance	100°C - Dry 80°C - Wet - ASTM D648
Direct Pull Adhesion	12Mpa (1760 psi) - grit blasted steel ASTM D4541
Shore 'D' Hardness	85 - ASTM D2240
Salt Fog Resistance	Excellent, unaffected after 10,000 hours exposure - ASTM B117
Cathodic Disbondment	6mm (7 days testing at 95°C, 1.5V) 9mm (15 days testing at 95°C, 1.5V) - GOST 51164-98
High Temperature Water Immersion	Good Adhesion (28 days at 80°C)
Humidity Resistance	Unaffected 5,000 hours exposure - BS3900 Part F2
Chemical Resistance 10% H ₂ SO ₄ 30% NaOH Deionized Water	No change in weight, no blistering or softening - ASTM D543
Water Vapour Permeability	1.2gm.mm/m ² /24 hours ASTM D1653



Application Procedures for 3M™ Scotchkote™ Epoxy Coating 162HB

Surface Preparation:

Steel Surfaces

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 75–100 microns.

Concrete Surfaces

Concrete 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 and surfaces then sealed using 3M™ Scotchkote™ Epoxy Sealer SP 810.

Prior to coating, the concrete should be dry and the moisture content should be checked using a proprietary surface moisture indicator

Application

Do not apply Scotchkote Epoxy Coating 162HB when the relative humidity exceeds 90% or when the surface to be coated is less than 3°C above the dew point. The minimum temperature for application is 5°C.

Scotchkote Epoxy Coating 162HB is intended for application by plural feed airless spray. A material temperature of 40–60°C is required, which should be attained by heating the Part A (Base) and Part B (Activator) components.

- Tip pressure typically 4000 psi
- Tip Size 19-25 Thou orifice;
- Airless Spray Minimum 45:1 pump ratio

For small areas, good quality brushes and mohair rollers should be used.

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

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

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

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.

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.

3M and Scotchkote are trademarks of 3M Company.

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.



Infrastructure Protection Division (IsPD) 3M United Kingdom plc

23 Standard Way Industrial Estate
Northallerton
North Yorkshire DL6 2XA
United Kingdom
Phone: +44 (0)1609 780170
Fax: +44 (0)1609 780438
www.3M.co.uk/scotchkote

Infrastructure Protection Division (IsPD) 3M United Kingdom plc

3M Centre
Cain Road, Bracknell
Berkshire RG12 8HT
Phone: 01344 858000
Fax: 01344 857970
www.3M.co.uk

Please recycle. Printed in UK.
© 3M 2010. All rights reserved.
162HB-0113