# 3M™ Scotchkote™ Epoxy Coating 162CR

## Data Sheet and Application Guide

### Product Description

Scotchkote Epoxy Coating 162CR has been specifically developed as a 100% solids lining for the internals of tanks, vessels and other equipment in contact with dirty water, mild aqueous chemicals and oils.

### Product Features

- Combines good application characteristics with excellent corrosion protection and chemical resistance.
- Is designed for application in two or more coats by brush or roller.
- Is primarily intended for use on steel but can also be used on concrete surfaces with the appropriate primer.
- **Adhesion -** Excellent to currently prepared surfaces.
- **Abrasion Resistance -** Excellent resistance to abrasion and mechanical damage.
- **Erosion resistance -** Excellent erosion resistance, suitable for use in aqueous slurries.

### 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 162CR 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, Mid Grey, Red<br>**Note:** Not colour stable, where a colour stable finish is required it must be overcoated with an appropriate top coat. |
| Ratio | 3.5:1.5 By volume |
| **Drying & Cure times at 20°C (68°F)** | |
| Usable Life | 45 mins |
| Touch Dry | 3-4 hours |
| Maximum Overcoating | 48 hours |
| Minimum Overcoating | 3-4 hours<br>**Note:** For overcoating see Application Procedures over. |
| Full Cure | 7 days |
| Volume Solids | 100% |
| Specific Gravity (Average Mixed) | 1.5 |
| Film Thickness (Typical) | Wet/Dry 250 microns per coat. |
| **Note:** Normally applied as a two coat system to achieve a nominal dry film thickness of 500 microns.<br>Detailed applied instructions in the form of system recommendations are available on request. | |
| Theoretical Coverage Rate | 4 sq metres per litre at 250 microns dft. |
| **Performance Data** | |
| Abrasion Resistance | 80mgm weight loss per 1000 cycles - 1kg load-CS17 wheel (ASTM D4060) |
| Impact Resistance | 2.6 joules (23 in lbs) (ASTM G14) |
| Heat Resistance | 100°C (212°F) - Dry<br>80°C (175°F) - Wet (ASTM D648) |
| Direct Pull Adhesion | 12Mpa (1760 psi) - grit blasted steel |
| Shore 'D' Hardness | 85 (ASTM D1706) |
| Salt Fog Resistance | Excellent, unaffected after 5,000 hours exposure (ASTM B117) |
| Cathodic Disbondment | Pass <6mm (¼ inch) (28 days at 20°C) (ASTM G8) |
| Humidity Resistance | Unaffected 5,000 hours exposure (BS 3900 Part F2) |
| Water Vapour Permeability | 1.2g.mm/m²/24hrs (ASTM D1653) |

# Application Procedures for 3M™ Scotchkote™ Epoxy Coating 162CR

## Surface Preparation

**Steel Surfaces** - Steel surfaces should be abrasive blasted in accordance with NACE No 2/SSPC-SP10 Near White Metal, ISO 8501-1 grade Sa2½ or equivalent. 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 abraded to remove all loose scale and produce a surface with a coarse profile 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 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 such as an Elcometer 7420 Digital Moisture Meter. When tested in accordance with the manufacturers instructions the reading should be classified as dry.

## Product Mixing

Scotchkote Epoxy Coating 162CR 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

Do not apply when the relative humidity exceeds 85% or when the surface to be coated is less than 3°C above the dew point. Minimum temperature for application and subsequent curing is 5°C.

Scotchkote Epoxy Coating 162CR 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.

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

## Packaging and Storage

Supplied in 5 litre and 20 litre packs

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.



## 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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