

# 3M™ Scotchkote™ Epoxy Coating 175UC

## Data Sheet and Application Guide

### Product Description

Scotchkote Epoxy Coating 175UC has been specifically developed as a 100% solids lining for the internals of tanks, vessels and other equipment in contact with aggressive chemicals.

### Product Features

- Combines good application characteristics with excellent corrosion protection and ultimate 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.
- **Chemical Resistance** - Suitable for continuous immersion in inorganic acids. Please consult Chemical Resistance Chart.

### 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 175UC 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 and Dark Grey
Ratio	2:1 By volume
<b>Drying &amp; Cure times at 20°C (68°F)</b>	
Usable Life	30 mins
Touch Dry	4½ hours
Minimum Overcoating	4½ hours
Maximum Overcoating	24 hours
<b>Note:</b> For overcoating see Application Procedures over.	
Full Cure	7 days
Volume Solids	100%
Specific Gravity (Average Mixed)	1.15
Film Thickness (Typical)	Wet/Dry 300 microns per coat
<b>Note:</b> Normally applied as a two coat system by brush to achieve a minimum dry film thickness of 500 microns. Can be applied in single coat by hot airless spray at 500 microns. Detailed application instructions in the form of system recommendations are available on request.	
Theoretical Coverage Rate	2.9 sq metres per kg at 300 microns dft.
Resistant to the following @ 20°C	98% Sulphuric Acid 36% Hydrochloric Acid 75% Phosphoric Acid
<b>Performance Data</b>	
Abrasion Resistance	60mgm weight loss per 1000 cycles - 1kg load-CS17 Wheel (ASTM D4060)
Impact Resistance	2.2 Joules (19½ in lbs) (ASTM G14)
Heat Resistance	177°C (350°F) - Dry 130°C (265°F) - Wet (ASTM D2485)
Direct Pull Adhesion	6.2Mpa (900 psi) - Steel 3.5Mpa (500 psi) - concrete (Concrete Failure) (ASTM D4541)
Water Vapour Permeability	1.5gm/mm/m²/24hrs (ASTM D1653)
Salt Fog Resistance	Unaffected after 5,000 hours exposure (ASTM B117)
Humidity Resistance	Unaffected 5,000 hours exposure (BS 3900 Part F2)
Scratch Resistance	No Failure 2.5kg (5.5lbs) load (BS 3900 Part E2)



# Application Procedures for 3M™ Scotchkote™ Epoxy Coating 175UC

## 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. All loose abrasive dust and debris must be blown clear or vacuum cleaned away. Steel surfaces do not require priming but should be coated within 4 hours of blast cleaning to prevent rash rusting

**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

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 homogenous.

## 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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The mixed materials should be used within 30 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 is 5°C.

Best application results are obtained at a minimum substrate and product temperature of 20°C. For optimum chemical resistance the product must be applied and allowed to cure at a minimum temperature of 20°C for at least 7 days before chemical contact.

Scotchkote Epoxy Coating 175UC 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 2, 5 and 20 kilo packs

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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175UC-0412