

3M™ Scotchkote™ Epoxy Coating 172

Data Sheet and Application Guide

Product Description

Scotchkote Epoxy Coating 172 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 airless spray at a thickness of up to 400 microns in a single application.
- Is suitable for use on grit blasted steel, mechanically prepared steelwork or high pressure water cleaned steel.
- **Adhesion** - Excellent to both blast cleaned and mechanically prepared surfaces.
- **Corrosion Resistance** - Excellent even under sea water immersion conditions.
- **Temperature Resistance** - Suitable for use up to 100°C dry heat.

General Application Steps

1. Remove oil, grease and loosely adhering deposits and all visible water.
2. Appropriately prepare the surface.
3. Apply Scotchkote Epoxy Coating 172 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, Black. Green 14C39or 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)	
Usable Life	35 minutes (based on a mixed 5 litre unit)
Touch Dry	8 hours
Hard Dry	24 hours
Minimum Overcoating	8 hours with itself 24 hours with finish coats
Maximum Overcoating	48 hours with itself 7 days with appropriate 3M Finishes
Full Cure	7 days
Volume Solids	100%
Specific Gravity (Average Mixed)	1.28
Film Thickness (Typical)	Wet/Dry 250 - 400 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 a system recommendation are available on request.	
Theoretical Coverage Rate	2 sq metres per litre at 500 microns DFT
Performance Data	
Abrasion Resistance	40 mgm weight loss per 1000 cycles - 1kg load - CS17 Wheel - ASTM D4060
Impact Resistance	3.6 Joules (31.5 in lbs) ASTM G14
Direct Pull Adhesion	30 Mpa (4350 psi) adhesive failure to coating (grit blasted steel) ASTM D4541
Salt Fog Resistance	5000 hours
Humidity Resistance	5,000 hours exposure - BS3900-E2
Water Vapour Permeability	4.9m.mm ² /24hrs - ASTM D1653



Application Procedures for Scotchkote Epoxy Coating 172

Surface Preparation

Surfaces should be clean and free from oils, grease, loosely adhering deposits and visible moisture.

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 SSPC-SP2/SP3 ISO 8501-4 St 2-St 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. The mixed material must be used within 40 minutes at 20°C. This time will be reduced at higher temperatures and extended at lower temperatures.

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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Application Procedures

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

The material should be applied by Airless or Air Assisted Airless spray, but can also be applied by brush to small areas. Airless and Air Assisted Airless Spray Settings are:

Minimum pump ratio: 40:1

Typical spray tip pressure of 2000-2500 psi
19-23 thou spray tip

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

Packaging and Storage

Supplied in 5 litre units,

Use within 2 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.

For emergencies, please contact +44 (0)1344 858000.

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