

3M™ Scotchkote™ Epoxy HT Lining HTX 517

Updated July 2014
Supersedes September 2013

Data Sheet and Application Guide

Product Description

Scotchkote Epoxy HT Lining HTX 517 has been specifically developed as a 100% solids epoxy coating for resurfacing and lining equipment operating at high temperatures.

Product Features

- Combines good application characteristics with good corrosion and temperature resistance.
- Designed for application by brush or squeegee.
- Provides a high build protective system capable of resisting wet heat up to 150°C (300°F).
- Primarily designed for resurfacing and lining metal components.
- Exhibits excellent adhesion to correctly prepared metal surfaces.

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.
3. Apply Scotchkote Epoxy HT Lining HTX 517 to the required thickness.
4. Allow to cure.
5. Visually or electrically inspect the coating for defects.
6. Repair any defects.

Properties

Property	Value
Colour	Light Grey and Off White
Ratio	4:1 By volume 5:1 By weight

Drying & Cure times at 20°C (68°F)

Useable life	45 mins
Touch Dry	6 hours
Minimum Overcoating	6 hours
Maximum Overcoating	24 hours

Allow to cure for 24 hours above 20°C before putting into service. The product is designed to post cure in service. The ultimate heat distortion temperature of the material will be determined by the in service post curing conditions.

Volume Solids	100%
Film Thickness (Typical)	750 microns (30 mils).

Note: Normally applied as a single or two coat system to achieve a nominal dry film thickness of 750 microns.

Coverage Rate	1.04m ² /kilo at 750 microns (11.2ft ² /kilo at 30 mils)
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Performance Data

Tensile Shear Adhesion	19.5Mpa (2800 psi) (ASTM D1002)
Compressive Strength	142Mpa (20730 psi) (post cured) (ASTM D695)
Flexural Strength	67Mpa (9700 psi) (post cured) (ASTM D790)
Abrasion Resistance	114.5mgm (0.086ml) loss per 1000 cycles, 1kg load, CS17 Wheel (ASTM D4060)
Heat Distortion Temperature	149°C (295°F) (Post Cured at 120°C for 24 hours) (ASTM D648)
Maximum Operating Temperature	170°C (340°F) - Dry 150°C (300°F) - Wet (post cured at 120°C for 24 hours)
Corrosion Resistance	5000 hours (ASTM B117)
Direct Pull Adhesion	6.2Mpa (900psi) - Steel (ASTM D4541)
Hardness (Rockwell R)	100
Impact Resistance	2.2 Joules (ASTM G14)



Application Procedures for Scotchkote Epoxy HT Lining HTX 517

Surface Preparation

All dirt and loose material should be scraped away. Oil and grease should be removed with 3M™ Scotchkote™ Cleaner 020. Surfaces should then be abrasive blast cleaned to a minimum NACE No. 2/SSPC-SP10 Near White Metal, ISO 8501:1, Grade SA2½, or equivalent with a minimum blast profile of 75 microns (3 mil). All loose abrasive dust and debris must be blown clear or vacuum cleaned away.

Existing steel surfaces which have corroded in a chemical environment may be contaminated by soluble iron salts within corrosion pits. To prepare these surfaces it is recommended that one of the following treatments be carried out prior to final dry abrasive blasting to the specified standard.

- Blasting with a mixture of clean water and abrasive.
- Initial dry blast cleaning to remove corrosion and surface coatings followed by high pressure clean water jetting (minimum 1000 psi/66 bar).

On sections of repairs which are not required to bond to the coating, these surfaces should be treated with 3M™ Scotchkote™ Release Agent 035.

Product Mixing

Scotchkote Epoxy HT Lining HTX 517 is a two component product supplied as a Part A (Base) component and a Part B (Activator) component which must be mixed together immediately 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.

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 material must be used within 45 minutes of mixing at 20°C (68°F). This time will be reduced at higher temperatures and extended at lower temperatures.

Application

For ease of application and optimum performance surfaces should be at a minimum of 20°C prior to Scotchkote Epoxy HT Lining HTX 517 being applied. In some instances the Part A (Base) may require heating to 25 to 35°C prior to mixing to aid application, this will reduce the usable life time.

The mixed material should be applied to the prepared area using a clean brush or squeegee. Application should be carried out as soon as possible after surface preparation is complete, and certainly the same day, otherwise flash blasting will be necessary before application.

Where necessary 3M™ Scotchkote™ Reinforcement Tape 040 should be stippled in to the mixed product and further material applied over the tape, ensuring the edges of the tape are overlapped.

All equipment must be cleaned IMMEDIATELY after use with 3M™ Scotchkote™ 020 Cleaner.

Packaging and Storage

Supplied in 0.8 and 3 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 .

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

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