

3M™ Scotchkote™ Epoxy Concrete Repair 474

Updated
Supersedes

September 2015
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Data Sheet and Application Guide

Product Description

Scotchkote Epoxy Concrete Repair 474 has been specifically developed as a three component 100% solids repair mortar for use on concrete surfaces.

Product Features

- Combines good application characteristics with excellent chemical resistance.
- Designed for application by trowel or float.
- Can be used to form wall/floor covings and can be laid to falls.

Adhesion: Excellent to correctly prepared surfaces.

Chemical Resistance: Unaffected by most industrial chemicals.

Abrasion Resistance: High order of resistance to abrasion and mechanical damage

General Application Steps

1. Remove oil, grease and loosely adhering deposits.
2. Prepare the surface and apply 3M™ Scotchkote™ Epoxy Repair Primer 080
3. Apply Scotchkote Epoxy Concrete Repair 474 at the required thickness, whilst primer is still wet.
4. Allow to cure.
5. Visually inspect the system for defects.
6. Repair all defects.

Properties

Property	Value
Colour	Light Grey
Ratio	Mix as supplied
Drying & Cure times at 20°C (68°F)	
Useable life	70 mins
Hard Dry	8 hours
Full Hardness	24 hours
Maximum Overcoating	24 hours
Full Cure	7 days
Volume Solids	100%
V.O.C	Nil
Volume Capacity	450cc (29 cu ins) per kilo.
Performance Data	
Abrasion Resistance	145 mgm weight loss per 1000 cycles, CS17 wheel 1kg load (ASTM D4060)
Impact Resistance	1.8 joules (16 ins/lbs) (ASTM D256)
Compressive Strength	86Mpa (12500 psi) (ASTM D695)
Dry Heat Resistance	135°C (275°F) (ASTM D2485)
Direct Pull Adhesion (Concrete)	3.5Mpa (500psi) - Concrete (Concrete Failure) (ASTM D4541)
Heat Distortion Temperature	46°C (115°F) (ASTM D648)
Flexural Strength	48Mpa (7000 psi) (ASTM D790)
Tensile Shear Adhesion (Grit Blasted Steel)	13.8Mpa (2000 psi) (ASTM D1002)



Application Procedures for Scotchkote Epoxy Concrete Repair 474

Surface Preparation

Surfaces to be repaired must be clean, dry and free from contamination.

Old concrete surfaces must be thoroughly cleaned with a detergent solution and then washed with clean water and allowed to dry.

New concrete surfaces will generally have laitance on the surface and this must be removed by mechanical means.

All existing coatings must be removed from the surface before any repair is carried out. Failure to do this will mean the bond is only as good as the existing coating.

Thorough cleaning and roughening of any surface to which the system is being applied is absolutely essential for a successful repair.

Abrasion of surfaces will cause dusting and therefore all loose dust should be vacuumed clear before the application commences.

Priming

To obtain maximum penetration and adhesion, the repair area should always be primed with 3M™ Scotchkote™ Epoxy Repair Primer 080. Scotchkote Epoxy Repair Primer 080 consists of a Part A (Base) component and a (Part B) Activator component. The contents of the Part B (Activator) component should be added to the Part A (Base) unit. Mix thoroughly to produce a uniform material. If only small quantities are required then the Scotchkote Epoxy Repair Primer 080 can be mixed in the ratio 2 parts Part A (Base) to 1 part Part B (Activator). The mixed primer should be applied immediately using a stiff bristle brush, working the material into the prepared surface to obtain maximum penetration. Scotchkote Epoxy Repair Primer 080 will generally apply at coverage rate of 0.37m² (4ft²) per 100 gms of primer.

Scotchkote Epoxy Repair Primer 080 must be used as a tack coat and should not be allowed to dry - any areas of primer which have been allowed to dry should be reprimed for optimum results.

Mixing

The mortar is a three component material comprising Part A (Base) and Part B (Activator) components and an Aggregate component which must be mixed together prior to use. The Part A (Base) and Part B (Activator) components should thoroughly mixed together in the outer container of the pack. After mixing continue stirring and add the total contents of the Aggregate bag, care must be taken to ensure thorough 'wetting' of the aggregate to prevent the formation of agglomerates. The use of a forced action mechanical mixer is recommended to ensure thorough and complete mixing. The mixed product must be used within 70 minutes of mixing at 20°C (68°F).

Application Procedures

Application should not be carried out when surface/air temperatures fall below 5°C

The mixed product should be pressed into the primed surface with a gloved hand or a trowel whilst the primer is still wet/tacky with a steel float or trowel being used to smooth the product out, with edges feathered in.

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

Packaging and Storage

Supplied in 15kg 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
For emergencies, please contact +44 (0)1344 858000.

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