3M™ Scotchkote™ Liquid Epoxy Coating 323R

Data Sheet and Application Instructions

Product Description

3M Scotch Liquid Epoxy Coating 323R is a two-part, ambient temperature cure, 100% solids content, thermosetting, liquid epoxy coating.

Intended Uses

- As a patch material
- As a rebar shear end coating
- Repair of scrapes, scars, damage or imperfections in 3M Scotchkote Fusion-Bonded Epoxy Coating 413 and 413 Spray Grade

Product Features

- No solvents needed
- High build, up to 45 mils/1150 microns in one application
- Applied by cartridge, brush, roller or 3M Scotchkote Spray Sytem HSS-450
- Excellent adhesion
- 100% solids
- VOC for Parts A and B as mixed 12 g/L
- Can be applied to a substrate as cold as 41°F/5°C
- Color match to Scotchkote 413 and 413 SG coatings
- Meets ASTM A 775/A 775M, ASTM D 3963, AASHTO M 284-81 and AASHTO M 254-77

3M Scotchkote 323R Coating Coverage per kit size (Assumes no waste)

	lbs of material	Coverage in square feet @ mils		
Kit	Total	7 mils	10 mils	15 mils
450 ml	1.34	27.2	19.1	12

Instructions for Use

For minor damage or repair of Scotchkote 413 coating apply Scotchkote 323R coating as follows:

1) Remove moisture.
2) Clean all oil, grease, dust, scale, rust and damaged coating from the area to be repaired.
3) Scotchkote 323R coating can be manually brush or roll-applied. It can also be spray-applied using the Scotchkote Spray System HSS-450 cartridge applicator.
4) Additional coats can be applied to increase film thickness after 20 minutes of the previous application, but not exceeding 2 hr 40 min at 75°F (24°C).
5) In order to achieve minimum edge coverage requirements greater than 6 mils (150 µm), more than one coat of 3M Scotchkote 323R coating may be needed.
6) Allow applied coating to dry prior to handling and storage.

Properties

Property	Value
Color	Green (color match to Scotchkote 413)
Mix Ratio	2A : 1B by volume 70.8% : 29.2% by weight
Viscosity in cps @	323R
• 72°F/22°C	Part A: 90,000 Part B: 19,000
Shelf Life (unopened container)	24 months
Specific Gravity	1.35 mixed
Coverage	142 ft^2/(lb/mil) (0.74m^2/(kg/mm))

Typical Test Properties

Property	Test Description	Typical Value		
Shyodu Gel Time (approximate pot life)	200 gm mass	75°F / 24˚C 104°F / 40˚C	18 Min 11 min	
Dry to Touch Time	ASTM D1640 clause 7.5.2	41°F / 5˚C 75°F / 24˚C 122°F / 50˚C	7 hrs 1 hr 45 Min 26 min	
Cathodic Disbondment (steel grit blasted plates laboratory applied; results may vary depending on blast media)	CSA Z245.20 clause 12.8	149°F / 65˚C, 3.5V, 149°F / 65˚C, 1.5V, 149°F / 65˚C, 1.5V, 176°F / 80˚C, 1.5V, 176°F / 80˚C, 1.5V,	24 hrs 48 hrs 28 days 14 days 28 days	4.9 mmr 5.5 mmr 7.5 mmr 6.4 mmr 6.6 mmr
Adhesion of Coating	CSA Z245.20 clause 12.14	203°F / 95˚C 167°F / 75˚C 167°F / 75˚C	24 hrs 48 hrs 28 days	Rating 1 Rating 1 Rating 1
Flexibility	CSA Z245.20 clause 12.11	68°F / 20˚C 0.7 32°F / 0˚C 0.7	˚/PD ˚/PD	
Abrasion Resistance	ASTM D4060 CS-17 wheels 1000 g load 5000 cycles wheels resurfaced every 500 cycles	0.325 g loss		
Impact Strength	ASTM G14	73.6 inch-lbs (8.3 Joules) at 75°F / 24˚C		

3M™ Scotchkote™ Spray System HSS-450

The application of Scotchkote 323R coating has been simplified using the 3M Scotchkote Spray System HSS-450. HSS-450 system utilizes a dual-cartridge setup along with unique application equipment designed specifically to spray apply Scotchkote 323R coating.

Helpful Cartridge Spray Information

- Preheat cartridge to a temperature in between 120ºF – 140ºF (49ºC - 60ºC)

For more information and additional literature on the Scotchkote HSS-450 system, please visit our web site at *www.3M.com/corrosion2010* or contact our Customer Service Center at 1-800-722-6721.

3M™ Scotchkote™ 450 ml Manual gun

An applicator is available to manually dispense Scotchkote 323R coating from the 450 ml cartridge. Static mix nozzles sold separately.

Equipment Clean-Up

MEK or tolulene may be used to clean spray equipment, rollers and brushes. Utilize proper safety guidelines.

Handling and Safety Precautions

Read all Health Hazard, Precautionary and First Aid, Material Safety Data Sheet, and/or product label prior to handling or use.

Ordering Information/Customer Service

For ordering technical or product information, or a copy of the Material Safety Data Sheet, call:
Phone: 800/722-6721
Fax: 877/601-1305

3M and Scotchkote are trademarks of 3M Company.

Important Notice	All statements, technical information, and recommendations related to 3M's products are based on information believed to be reliable, but the accuracy or completeness is not guaranteed. Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use. Any statements related to the product, which are not contained in 3M's current publications, or any contrary statements contained on your purchase order, shall have no force or effect unless expressly agreed upon, in writing, by an authorized officer of 3M.
Warranty; Limited Remedy; Limited Liability	Because conditions of product use are outside of our control and vary widely, the following is made in lieu of all express or implied warranties: This product will conform to 3M's published product specifications and be free from defects in material and manufacture on the date of your purchase. **3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** If this product is defective upon your receipt, your exclusive remedy shall be, at 3M's option, to replace the 3M product or refund the purchase price of the 3M product**. Except where prohibited by law, 3M will not be liable for any indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.**

3M

Electrical Markets Division
6801 River Place Blvd.
Austin, TX 78726-9000
800.722.6721
FAX: 877.601.1305
www.3M.com/corrosion

Please recycle
© 3M 2013 All rights reserved
78-8141-6793-4 B