




Scotchkote™

306 and 314 Liquid Epoxy Coatings

Product Description

3M Scotchkote 306 and 314 Liquid Epoxy Coatings are ambient temperature cure, two-part thermosetting 82% solids liquid epoxy coatings designed to protect metal, concrete and other surfaces from corrosion and deterioration. Scotchkote 306 and 314 coatings may be applied in the field by brush, roller and conventional or airless spray equipment.

Features

- High build, 16 mils/406 µm in one application
- 1 to 1 mix ratio by weight
- Applicable with roller, brush, or spray equipment
- High level of adhesion
- Applicable at temperatures down to 55°F/13°C
- Long field performance history
- Compatible and color matched: Scotchkote 306 is matched to Scotchkote 413 and 413 Spray Grade. Scotchkote 314 is matched to Scotchkote 134.
- Scotchkote 306 and 314 comply to ANSI/NSF Standard 61 

General Application Steps

1. Remove oil, grease and loosely adhering deposits.
2. Abrasive blast clean the surface to NACE No. 2/SSPC-SP10 ISO 8501:1, Grade SA 2 1/2 near-white finish.
3. Apply Scotchkote Liquid Epoxy Coatings at the specified thickness.
4. Allow to cure according to cure guide.
5. Visually or electrically inspect the coating for defects.
6. Repair all defects.

Cure Specifications

Scotchkote 306 and 314 Liquid Epoxy Coatings must be cured according to the Cure Guide to achieve maximum performance properties.

Note: Before heat curing, flash the solvent under forced ventilation for 2 hours at 70°F/21°C or 1 hour at 150°F/66°C.

Cure Guide

Temperature	Cure Time
300°F/149°C	15 minutes
250°F/122°C	20 minutes
200°F/97°C	30 minutes
160°F/72°C	60 minutes
73°F/23°C	48 hours

Typical Properties

Property	Value
Color	
Scotchkote 306	Green
Scotchkote 314	Forest Green
Mix Ratio	1A to 1B by weight
Coverage without waste, 10 mils (254 microns)	13ft ² /lb/2,6 m ² /kg
Shelf life, unmixed closed container	24 months
Maximum thickness per coat (wet)	16 mils/406 µm
Pot Life, 10 lb (4.5 kg) unit	
60°F/16°C	90 minutes
73°F/23°C	60 minutes
85°F/29°C	30 minutes
100°F/38°C	20 minutes
Closed Cup Flash Point	Part A 74°F/23°C Part B 54°F/11°C

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Property	Test Description	Results
Impact	ASTM G 14 10 mil/254 micron coating at 73°F/23°C reverse and direct	30 in-lbs 3.4 J
Abrasion Resistance	ASTM D 1044 CS-17 1000g weight / 5000 cycles	0.341 g loss
Adhesion to Steel (Shear)	ASTM D 1002	3000 psi/210 kg/cm ²
Hardness	Shore D Barcol ASTM D 2583	82-85 8-10
Thermal Conductivity	MIL-I-16923E	6 x 10 ⁻⁴ cal/sec/cm ² /°C/cm
Thermal Shock	3M, 10 cycles 310°F/154°C to -320°F/-195°C	no visible effect
Water Absorption	3M free film immersion, 30 days	0,94 g/m ²
Salt Spray	ASTM B 117, 1000 hours	1/8 inch/3,2 mm undercutting
Weatherometer	ASTM E 42, 1000 hours	Surface chalk

Chemical Resistance Exposure at 73°F/23°C*

Acid Splashes	Gasoline Unleaded	Sodium Meta Silicate up to 5%
Borax	Glycerine	Sodium Nitrate
Cadmium Nitrate	Heptane	Sodium Sulfate
Cadmium Sulfate	Hydrogen Sulfide	Sodium Thiosulfate up to 50%
Calcium Carbonate	Kerosene	Solvent Splashes
Calcium Chloride	Linseed Oil	Synthetic Sea Fuel
Calcium Hydroxide	Lubricating Oil	Trisodium Phosphate
Calcium Nitrate	Mineral Oil	Turpentine
Calcium Sulfate	Mineral Spirits	Urea
Citric Acid up to 25%	Molasses	Urine
Crude Oil	Motor Oil	Vinegar
Detergent	Potassium Dichromate up to 10%	Water
Diesel Fuel	Potassium Hydroxide	Fresh
Ethylene Glycol	Sewage	Salt
Ferric Chloride up to 50%	Soap Solution	Sea
Freon Gas & Liquid	Soaps	Zinc Chloride
Gas (Mfg)	Sodium Chlorate	
Gas (Natural)	Sodium Chloride	
Gasoline Leaded	Sodium Hydroxide (sat.)	

*Tests conducted for three years on similar products. No visible effect unless otherwise stated.

Handling and Safety Precautions

Read all Health Hazard, Precautionary, and First Aid statements found in the Material Safety Data Sheet, and/or product label of chemicals prior to handling or use.

Important Notice

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6801 River Place Blvd.
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