

3M™ Scotchkote™ Epoxy Coating 323/323i

Application Guide

Product Description

3M™ Scotchkote™ Liquid Epoxy Coating 323/323i is a two part system designed to protect steel pipe and other metal substrates from the harsh affects of corrosion.

Hand Application

1. Mix part A and part B separately.
2. Pour part B into part A completely.
3. Thoroughly mix using mix stick until color consistency is achieved.

Pot Life (7 ounce/200 gram sample)

70°F/20°C	28 minutes
100°F/38°C	8 minutes

Recommendations

- Prepare only the quantity of coating that can be applied within given pot life.
- A ¼ in (6 mm) nap, lint free roller is suggested.
- For the speed of application, and to extend the working time of the product, pour mixed product directly on to substrate/ pipe, then pull the mixture down around pipe with brush or roller.
- Because of the high viscosity of this product, we suggest mixing parts A & B together at temperatures above 60°F/15°C.

Using a brush or roller, apply Scotchkote 323/323i to a minimum thickness of 25 mils/625 microns or as specified.

As an ARO, apply Scotchkote 328 to a minimum thickness of 40 mils/1000 microns. Overlap the pipe coating no less than 1 in /25 mm. Allow coating to properly cure before handling.

General Application Steps

For use as a joint coating, a refurbishing coating, or as pipe coating.

1. Remove oil, grease, and loosely adhering deposits.
2. Verify the air temperature is 5°F/3°C above the dew point.
3. Abrasive blast clean surface to NACE #2/SSPC-SP10, ISO 8501:1 SA-2 1/2 near white metal.
4. With air hose, clean blasted surface of any abraded debris then verify anchor profile is 2-4 mils/50-100 microns.
5. With the substrate between 41°F/5°C and 200°F/93°C dew point 5°F/3°C below air temperature, apply Scotchkote™ Liquid Epoxy Coating 323/323i at minimum film of 25 mil/ 625 microns.
6. Apply Scotchkote 323/323i as soon as possible after blasting but no more than 4 hours.
7. Allow to cure per time & temperature chart below.
8. Visually or electrically inspect the coating for defects.
9. Repair all defects using Scotchkote 323/323i as repair material.

Repair Process

1. Remove oil, grease, and loosely adhering deposits.
2. Abrade the coating surface with medium grit sandpaper (80 grit). Ensure that the surrounding coating is abraded on all sides of the holiday.
3. Ensure abraded surface is cleaned of any debris with air blast or clean lint free cloth.
4. With the substrate between 41°F/5°C and 200°F/93°C dew point 5°F/3°C below air temperature, apply Scotchkote™ Liquid Epoxy Coating 323/323i at minimum film of 25 mil/ 625 microns.

Cold Weather Repair Process

1. Follow steps 1–3 from “Repair Process” above.
2. Using a butane torch heat the surface to be repaired.
3. ***CAUTION***: Do not make contact with flame to coating or allow existing coating to brown.
4. Apply 3M™ Scotchkote™ Liquid Epoxy Coating 323/323i to the damaged area at minimum of 25 mils/625 microns.
5. Using the butane torch, apply heat to the patch to accelerate cure process.
6. ***CAUTION***: Do not make contact with flame to coating or allow existing coating to brown.



Product Handling Properties at Time* and Temperature

Product Temperature	Pot Life	Dry To Touch Time	Back Fill Time
40°F/5°C	45 minutes	6-7 hours	10-12 hours
60°F/16°C	30 minutes	3-4 hours	4-6 hours
75°F/23°C	22 minutes	2-3 hours	2-4 hours
85°F/29°C	14 minutes	70-90 minutes	1-2 hours
100°F/38°C	10 minutes	40-70 minutes	40-60 minutes
120°F/49°C	8 minutes	20-40 minutes	20-40 minutes

*It is very important to note that times listed above are approximation and will vary due to ambient and substrate temperature or a combination of both.

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Coverage in Quart/0.95 Liter Kit per Weld

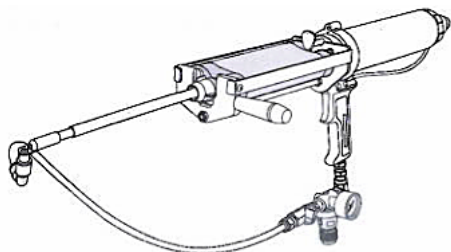
Pipe Diameter (inches)	Total Length to Coat (inches)			
	6	8	10	12
6	0.06	0.08	0.10	0.13
12	0.13	0.17	0.21	0.25
20	0.21	0.28	0.35	0.42
24	0.25	0.33	0.42	0.50
30	0.31	0.42	0.52	0.63
36	0.38	0.5	0.63	0.75
42	0.44	0.59	0.73	0.88
48	0.5	0.67	0.84	1.00

— Assume no waste. Based on 25 mil thickness.

— For dimensions, please see our coverage calculator on our web site (www.3M.com/corrosion)

3M™ Scotchkote™ Spray System HSS-450

The application of Scotchkote™ Liquid Epoxy Coating 323/323i has been simplified using 3M™ Scotchkote™ Spray System HSS-450. The HSS-450 system utilizes a dual-cartridge setup along with unique application equipment designed specifically to spray apply Scotchkote 323/323i.



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

450 ml Cartridge Heating Process

This process makes use of microwave oven to heat the 450 ml cartridges. Do not open cartridge at any time during this process. Proper PPE is recommended which includes but limited to: safety glasses, coverall, and chemical resistance gloves.

1. Verify power output of microwave as higher power will heat cartridge quicker.
2. Place 450 ml cartridge in microwave oven.
3. You heat in 30 second intervals until you can verify how long your microwave oven takes to heat to 120°-140°F.
4. Use a Pyrometer to verify that the outside of cartridge has reached 120°-140°F.
5. ***CAUTION***: Do not allow cartridge temperature to exceed 140°F as the back plunger will soften and material will leak

Helpful Plural Component Spray Information

- Suggested tip size of 625
- Tip pressure 2,500 – 3,500 psi/18 – 22 MPa
- Preheat Part A to 140°-160°F/60°-70°C
- Preheat Part B to 130°-150°F/55°-65°C
- Mix ratio of pumps is 2:1

Equipment Clean-up

MEK or toluene may be used to clean spray equipment, rollers, and brushes. Utilize proper safety guidelines when working with solvent.

Multiple Coats

Scotchkote™ Liquid Epoxy Coating 323/323i has been formulated to achieve a coating thickness of 45 mils/1150 microns in one coat. If additional thickness is required, apply the additional coats within 4 hours of the initial coat at temperature of 70°F/20°C. This coating may be applied in any thickness consistent with producing an acceptable surface finish.

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RECOAT WINDOW

Air Temperature	Recoat Window
60° F/15°C	4 hours
75°F/23°C	3 hours
85°F/28°C	2 hours
100°F/36°C	1 hour

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

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