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Data sheet
Specification bulletin

Master Builders Technologies
Corrosion Control
INSTALLATION PROCEDURE
1.4i

CEILCOTE® Lining Series

(25, 64, 74 and 652)
Reinforced polyester linings

The following procedures are to be used when applying CEILCOTE® Lining series material (25, 64, 74 and 652), a nominal 1/8 in. lining of resin and glass fibers, to steel or concrete surfaces.

These procedures are as specific as possible, but cannot cover all variations in field conditions. Therefore, supervisors experienced in installing CEILCOTE materials may sometimes deviate slightly from the published procedures. This is done to give a better installation by using the most up-to-date methods to fit specific field and service conditions.

EQUIPMENT:
- Small Graduate for measuring cubic centimeters or fluid ounces.
- Large Graduate for measuring pounds of resin (this can be a quart measuring vessel figuring the resin at one pound per pint).
- Plain Roller (short fiber mohair)
- Steel or aluminum ribbed roller
- Horse Hair Paint Brush - 4 in. or larger
- Scissors
- One - three or five gallon mixing vessel
- One - three or five gallon vessel for cleaning solvent
- T-410
- Spark Tester - 10,000 to 20,000 volts
- Disc Sander
- Wet Film thickness gauge

MATERIALS REQUIRED:
- P-380 Primer for concrete (Hardener included)
- P-370 Primer for steel (Hardener included)
- Type S, No. 1 Powder for Base coat
- Lining 25,64,74,652 Liquid
- Hardener No.3
- Hardener No.2 (for lining 74 & 652)
- Thin Film Curing Aid
- Glass Mat 1-1/2 oz/ft^2
- "C" Glass Surfacing Mat (10 mil)
- T-410 Solvent for Cleaning

SURFACE PREPARATION:
Steel
Sandblast the surface to "White Metal" with a 3 mil minimum profile in accordance with Steel Structures Painting Council Specification SP5-89 or NACE Specification No.1, using a clean and dry blasting abrasive grit that will provide a minimum anchor pattern of 3 mils.

Remove excessive dirt, dust and abrasives by vacuuming, air blast or carefully brushing.

contamination. Coverage is 300 ft^2/gal P-370 Liquid is catalyzed with 2.0 oz/gal of Hardener No.3. One coat at 1.0 to 4.0 wet mils. Three wet mils will yield 2.0 dry mils.

The appearance of P-370, when applied by brush, roller or spray, should be translucent. The metal substrate should be visible. The aesthetics of this application will be poor due to overlaps and slight thickness variation. Overlap areas should also be translucent.

This product is not intended to have a uniform opaque appearance. An opaque appearance with P-370 indicates a dry film thickness in excess of 5 mils which is considered over thickness. Over thickness may cause polyester and vinyl ester topcoats to sag or slide off vertical surfaces.

Concrete
New concrete should be cured for 28 days and then sandblasted prior to applying P-380 Primer. For complete surface preparation for old or new concrete refer to CEILCOTE Construction Practice CP-11.

PROPORTIONS:
Primer

P-370 Liquid	8 lb (1 gal)
Hardener No. 3	2 fl oz (59 cc)
P-380 Liquid	8 lb (1 gal)
Hardener No. 2	2-1/2 fl oz (74 cc)

Lining Base coat

Resin	8 lb (1 gal)
Hardener No. 3	2.0 fl oz (59 cc)
Type S No. 1 Powder	18 lb*

*or as needed for good troweling

For lining 74 and 652, use 2-1/2 fl oz/gal (74 cc) of Hardener No. 2 for all coats. (2 fl oz for a 3/4 gal unit)

Saturating Resin

Resin	8 lb (1 gal)
Hardener No. 3	2.0 fl oz (59 cc)

1st Topcoat
Resin with 4 oz/gal Hardener No. 3 for CEILCOTE 25 and 64 linings. Resin with 4 oz/gal Hardener No. 2 for CEILCOTE 74 and 652 linings.

2nd Topcoat
Same as 1st coat except add 8 oz/gal of Thin Film curing aid.

FLASH POINTS: (PENSKY-MARTENS CLOSED CUP)

Lining 25, 61	90 °F	(32 °C)
Lining 652, 74 Liquid	83 °F	(28 °C)
Lining 64	87 °F	(31 °C)
P-370 Liquid	73 °F	(23 °C)
P-380 Liquid	83 °F	(28 °C)
Hardener No. 2	175 °F	(79 °C)
Hardener No. 3	210 °F	(99 °C)
T-410 Solvent	35 °F	(2 °C)

SAFETY:

CEILCOTE 25, 64, 74, and 652 linings contain polyester or vinyl ester resin and styrene monomer. The hardener is an organic peroxide. Observe the following health, physical and storage precautionary measures before using products.

HEALTH PROTECTION INFORMATION:

Wear gloves, eye protection and appropriate work clothing to avoid contact with components. Ventilation is required with special consideration for enclosed or confined areas (provide air exchange every 6 minutes to maintain styrene vapor concentration below 50 ppm). Air movement must be designed to ensure buildup of heavy vapors. Styrene vapor concentration above 50 ppm requires the use of an organic vapor cartridge respirator or self-contained breathing apparatus. Refer to Material Safety Data Sheets (MSDS) for specific health information on each product.

Physical - CEILCOTE Lining Series products and solvents are flammable. Heat, sparks and flames or any source of ignition must be kept at least 50 feet from working area. Use grounded nonsparking tools in work area. When applying linings to enclosed areas use two men, one on the outside for safety. Continue ventilation in tanks after coating until cured to minimize concentrating styrene vapors (Explosive Limit Styrene 1.1%). Empty residues may ignite from source of ignition explosively.

Storage Safety - Observe safe storage practices by separating resins from hardeners, by keeping solvents and hardeners in a cool area free of sources of ignition, and by observing a special CEILCOTE warning on RED and YELLOW labeled products. The CEILCOTE RED labels represent amine type chemicals, and the YELLOW labels represent organic peroxide type chemicals which should not be stored adjacent or mixed together because of possible violent reaction between them.

Hardeners No. 2 and No. 3, organic peroxides, must be stored at temperatures below 100 °F to avoid decomposition and below 140 °F to avoid ignition from sparks or flame.

APPLICATION:

Environmental Conditions

For all application steps, the surface temperature, air temperature and material temperature should be between 50 °F (10 °C) and 110 °F (43 °C).

Do not apply if the relative humidity is more than 90 percent or the surface temperature is less than 5 percent above the dew point of the air in the working area.

1. Brush, roll or spray on a thin coat of the primer as soon as possible after the surface has been sandblasted. Let the primer cure for six to eight hours. To sparktest on concrete, prime with P-380 C Primer.
2. After the primer has hardened, trowel on an even coat of the base coat mix at 40 to 80 mils. Base coat that is too fluid will allow mat to sag.
3. Immediately press the glass mat into the base coat, then saturate by dipping the paint roller into the saturating resin and roll until the mat has lost its white color. Use only the minimum amount of resin necessary to saturate the mat.
4. Roll with the ribbed roller to remove trapped air. It is very important to roll out all possible air from the lining.
5. Immediately place another layer of glass mat on the wet surface, dry roll and then saturate as in No. 3 and No. 4. The second layer of mat must be placed so that the adjoining second layer is lapped at a different place that the first layer. All joints must be lapped at least one inch.
6. Before the glass mat layer has hardened, lay on the surface mat and roll it. Usually it will saturate without adding any more saturating resin.
7. After the lining has hardened, spark test with a 15,000 to 20,000 volt spark tester. Any pinholes must be repaired by grinding down as small an area as possible at the pinholes and patching with mat and resin plus hardener. Allow the patches to harden before proceeding with the next step.
8. After the lining has been tested, sand off bumps, loose fibers, etc., then brush or roll on an even, heavy coat of the saturant as the 1st topcoat. Allow this to harden approximately 16 hours.
9. Apply the 2nd topcoat containing a thin film curing aid. Let harden 24 hours at temperatures above 75 °F or 48 hours between 60 and 75 °F.

CLEANUP:

Rollers, brushes and other equipment may be cleaned with T-410, MEK or MIBK.

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