

CEILCOTE[®] 100 FLAKELINE[®] SERIES (103, 140 and 180)

IMPORTANT: READ THIS FIRST

Master Builders does not warrant the performance of this product unless the instructions of this document and other related Master Builders documents are adhered to in all respects.

Installation procedures contained in this bulletin 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 procedures to fit specific field and service conditions.

EQUIPMENT

- Plaster or cement finishing trowel
- Pointing trowel
- Paint rollers (short bristle wool)
- Pails (3 or 5 gal.) - 3 required: 1) for mixing, 2) for cleaning solvent, and 3) for styrene
- Measuring cup or graduated cylinder (Cubic Centimeters)
- Platform weighing scale
- Wet Film Thickness Tester
- Spark Tester - 7,000 volt
- Disc Sander
- Cleaning rags

SURFACE PREPARATION

Steel

1. Sandblast the surface to "White Metal" in accordance with Steel Structures Painting Council specification SP5-63 or NACE No. 1, using a clean and dry blasting abrasive of such mesh size that will give a 3 mil minimum profile.
2. The air supply for each blasting nozzle should be at least 250 CFM continuous input volume at 100psi. Separators and traps should be used to assure both a dry abrasive and dry air at the nozzle.
(a) Proper blasting hoods and gloves are recommended.
3. Remove dirt, dust and abrasives by vacuuming, air blowing or careful brushing.
4. All metal surfaces must be primed with CEILCOTE 370 Primer before contamination or rust deterioration can occur. Primer may be sprayed or rolled to yield 1 to 4 wet mils. Average coverage of CEILCOTE 370 Primer is 300 sq. ft. per gal. Catalyze with 2 oz. Hardener No. 3 per gallon of primer. Catalyze with 2 oz. Hardener No. 3 per gallon of Primer. (See Bulletin #2-3.)

PRODUCT PREPARATION

Coverage and Mixing

CEILCOTE FLAKELINE Series	103	140	180
Square Feet Per Gallon	12 to 14	12 to 14	12 to 14

Hardener

CEILCOTE 103 FLAKELINE System

50 to 75 degrees F	No. 3R	3 oz. (88 cc)/gal.
75 to 90 degrees F	No. 3R	2 oz. (59 cc)/gal.

CEILCOTE 140 FLAKELINE System and CEILCOTE 180 FLAKELINE System

50 to 75 degrees F	No. 2R	3-1/2 oz. (94 cc)/gal.
75 to 90 degrees F	No. 2R	2-1/2 oz. (72 cc)/gal.

CEILCOTE® 100 FLAKELINE® Series Installation Procedure

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Flash Points: Pensky-Martens Closed Cup

CEILCOTE 100 FLAKELINE Series	94°F	(34 °C)
CEILCOTE 180 FLAKELINE System	82 °F	(28 °C)
Hardener #3R	210 °F	(99 °C)
Hardener #2R	79 °F	(26 °C)

Dye FG-1

4 oz. (118 cc) per gal. on the first coat only.

Styrene Smoothing Liquid

1 pt. per gal. of CEILCOTE FLAKELINE material. Do not mix into CEILCOTE FLAKELINE material.

Cleaning Solvent

T-410 Solvent - 1 gal. per 150 ft² of applied lining.

STORAGE

Containers of CEILCOTE 100 FLAKELINE Series, Hardener 3R, Hardener 2R, styrene, and T-410 should be kept closed and in a cool place [ambient 70°F (21°C)] in summertime. In winter, keep containers between 60°F (16°C) and 70°F (21°C). Packages must be stored away from flames and direct sunlight.

MIXING

1. Pour the hardener for the CEILCOTE 100 FLAKELINE Series in a bucket. Mix thoroughly until the color is uniformly pink, using either a paddle or a mixing whip (available from Master Builders) attached to a 1/2" electric drill. On the first coat mix FG-1 Dye into liquid (4 oz. Dye/Gal CEILCOTE 103 FLAKELINE) before adding Hardener.
2. Pot life is about 50 minutes at 77 degrees F (25 degrees C).

APPLICATION

Environmental Conditions

- For all application steps, the surface temperature, air temperature and material temperature should be between 50 degrees F (10 degrees C) and 110 degree F (43 degrees C).
- Do not apply if the relative humidity is more than 90% or the surface temperature is less than 5% above the dew point of the air in the working area.

Application

- CEILCOTE 100 FLAKELINE Series linings are applied by trowel. Two coats (30 to 75 mils per coat, target 40) are required to achieve a nominal thickness of 80 mils. Thickness should be checked frequently with a wet film gauge. Dye FG-1 is added to the CEILCOTE FLAKELINE liquid for the first coat only. This gives the first coat a blue-green color.
- Each coat must be rolled lightly immediately after application, to orient the flakes parallel to the surface and provide a smooth dense lining. Roll with a short nap paint roller dampened only with styrene. An excess of styrene will soften the lining.
- The second coat may be applied after initial hardening of the first coat $\frac{1}{2}$ hours at 70 degrees F (21 degrees C)]. The second coat is applied without dye, making it an off-pink color. The color difference assures complete coverage.
- Check the thickness regularly with a wet film tester. Total thickness of the cured films should be 60 to 150 mils. Resin coats, if required, are applied in a single coat by spray, roller or brush at approximately 5 dry mils.

CURE TIME

Initial cure is reached in 4 hours at 70 degrees F (21 degrees C). However, CEILCOTE 100 FLAKELINE Series should not be put into service until at least 24 hours at 70 degrees F (21 degrees C).

TESTING

1. Assure that there are no soft spots or white streaks which may result from inadequate mixing.
2. Dry film thickness should be checked after the job is complete, using a magnetic Dry Film thickness gauge.
3. When CEILCOTE 100 FLAKELINE Series are applied for immersion service, check for pinholes with a minimum of 10,000 volts.

PATCHING

Using a disc sander or small sandblaster, remove a small area, including the pinhole, back to white metal, then fill with CEILCOTE 100 FLAKELINE Series and roll out as above.

CLEAN UP

Equipment and tools may be cleaned with T-410, MEK, or lacquer thinner before the CEILCOTE 100 FLAKELINE Series has hardened. After the CEILCOTE 100 FLAKELINE Series has hardened, the best way to remove it from tools is with methylene chloride.

SAFETY

WARNING - COMBUSTIBLE LIQUID.

HARDENERS NO. 2 AND 3 CONTAIN ORGANIC PEROXIDE - VAPOR HARMFUL.

MAY CAUSE EYE IRRITATION, SKIN SENSITIZATION OR OTHER ALLERGIC RESPONSES. MAY BE FATAL IF SWALLOWED. STRONG IRRITANT. CONTAMINATION OR HEAT MAY LEAD TO FIRE OR EXPLOSIVE DECOMPOSITION.

Avoid repeated or continuous skin contact with CEILCOTE FLAKELINE liquid, hardeners or primers and their hardeners. Wash immediately after handling with soap and water. Remove contaminated clothing and shoes and again wash thoroughly with soap and water. Do not get into eyes. Wear eye protection when handling. For eye contact, wash immediately (seconds count) with water and continue washing for at least 15 minutes. OBTAIN MEDICAL ATTENTION. Do not take internally. If swallowed, do not induce vomiting. CALL PHYSICIAN IMMEDIATELY.

No flame, smoking, matches, sparks, or welding should be permitted within fifty feet (50'). There should be at least two men on all enclosed tank jobs. One should be on the outside. Approved air hoods, a rope and a safety belt should be used. Provide sufficient ventilation to change the air inside an enclosed tank once every six minutes. Make certain fresh air is circulated into all parts of the tank, especially during the curing period. In semi-confined areas, an absorptive respirator should be used. In open air, application may be done without a respirator; if strong or toxic odors are evident while applying, use a respirator.

Hardeners with RED labels must never be combined with Hardeners with YELLOW labels. They will react violently if mixed together in the same container. Do not store packages with RED labels near packages with YELLOW labels. Use only in accordance with manufacturer's instructions. NOTE: DOT labels are not coded as per the above warning.

FOR INDUSTRIAL USE AND PROFESSIONAL APPLICATION ONLY

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