

12/1/93

MASTER BUILDERS TECHNOLOGIES

1.5S

**CEILCOTE Ceilline SERIES \***

*For Concrete Substrates*

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NOTES TO THE SPECIFIER

1. This document has been prepared to assist specifiers in the preparation of specifications for **CEILCOTE Ceilline SERIES**, a Master Builders Inc., CEILCOTE Corrosion Control Product.
2. This document was prepared as part of a complete specification for new construction or the renovation and upgrading of existing structures.
3. This specification defines the necessary practices for surface preparation and application of **CEILCOTE Ceilline** along with tolerances where applicable.
4. Application under this specification must be done in accordance with the standard installation procedures and related documents.
5. Questions regarding the selection, installation or intended end use of Master Builders Inc., CEILCOTE CORROSION CONTROL PRODUCTS should be directed to Master Builders, Inc.

\* This specification may be used for all **CEILCOTE Ceilline** crack-bridging types such as 6650, 505, 2000, 232, 830.

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## **GUIDELINE SPECIFICATION**

### ***CEILCOTE CeilLine SERIES***

#### **(Concrete)**

The specification information below is intended for use by architects, engineers or other specifiers in defining the criteria needed to specify these modified epoxy lining and flooring systems.

#### **1.0 GENERAL**

##### **1.1 SCOPE**

This specification covers the surface preparation and application of ***CEILCOTE CeilLine*** as normally encountered in field installations.

Deviations from this specification due to unforeseen or unknown field conditions, must be authorized by Master Builders, Inc.

The contractor shall furnish all materials, tools, equipment, appliances, transportation, labor and supervision required during the preparation and installation process.

##### **1.2 PRE-QUALIFICATION**

Applicator of material must be approved by material manufacturer and have at least (5) years experience in the application of this or a similar system. Previous experience must be verified by (3) references having similar applications.

Contractor(s) seeking approval of substitute materials shall submit their request in writing to the specifier at least 7 days before closing of bids. Include samples; complete performance data; certification from independent testing laboratory regarding conformity with specifications and list of completed successful installations, with phone number of responsible person to contact, to enable accurate appraisal of the system. Bidders shall be notified of acceptable substitute lining/flooring by written addendum or amendment.

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**(Concrete)**

### **1.3 APPLICABLE STANDARDS AND TEST METHODS**

Physical properties and test methods for **CEILCOTE CeillLine SERIES** are listed in **CEILCOTE CeillLine SERIES** TECHNICAL DATA SHEET and INSTALLATION PROCEDURES.

- .1 Other reference documents include: Ceilcote 680 or 680C Primer Technical Data Sheet and Ceilcote Standard Specification for Concrete to Receive Monolithic Linings and Toppings - CPT-1, pertinent Topcoat Technical Data Sheets.

### **1.4 PROJECT/SITE CONDITIONS**

- .1 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% or the surface temperature is less than 5° above the dew point of the air in the working area.

- .2 Adequate ventilation and clean water supply required during installation.

## **2.0 PRODUCTS**

### **2.1 ACCEPTABLE MANUFACTURER**

- .1 Master Builders, Inc., 23700 Chagrin Boulevard, Cleveland, Ohio 44122-5554, (216) 831-5500 or (800) 628-9990.
- .2 Master Builders Technologies Ltd., 3637 Weston Road, Toronto, Ontario, Canada, M9L 1W1, (416) 741-3830 or (800) 387- 5862.
- .3 Tecnocreto, S.A. de C.V., Blvd. M. Avila, Camacho #80, 3er Piso, 53390 Naucalpan, Mexico (525) 557-5544.

### **2.2 MATERIALS**

- .1 Materials for **CeillLine Series** include:
  - Ceilcote 680 Primer and Hardener
  - **CEILCOTE CeillLine** Base coat - Horizontal and Hardener
  - **CEILCOTE CeillLine** Base coat - Vertical and Hardener

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**2.2 MATERIALS - continued**

- Fiberglass Mat Reinforcement
- Appropriate Saturant for Fiberglass

For Epoxy Systems:

- Ceilcote 680 Primer and Hardener

For Polyester/Vinylester Systems:

- **CEILCOTE CeilLine** Saturant and Hardener

Appropriate Topcoat, Hardener and Filler

- Examples - Refer to Specification for Topcoat:

CEILCOTE 6650 CEILCRETE, Ceilcote #2 Hardener, S-1 Powder,  
CEILCOTE 252 FLAKELINE and Ceilcote #3 Hardener

- Smoothing Liquid

Refer to Topcoat Specification

**3.0 EXECUTION**

**3.1 INSPECTION**

- .1 Before starting work, ensure environmental and site conditions are suitable for application and curing.
- .2 Inspect surface for acceptability.
- .3 Any and all deficiencies shall be reported in writing.

**3.2 PREPARATION**

- .1 Surface conditions to apply the **CEILCOTE CeilLine System** requires the removal of dirt, oil, sealers, soft concrete, laitance and chemical contamination.

Method to be used may include, but should not be limited to, abrasive blasting and/or mechanical abrasion.

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#### **3.2 PREPARATION - continued**

- .2 Concrete must be dry. Some of the **CEILCOTE Ceilline** components will not tolerate the presence of moisture during application. Check with Master Builders if there is a moisture problem.
- .3 Concrete quality must be addressed before the **CEILCOTE Ceilline** can be applied. These conditions are air pockets, pinholes, tieholes, form burrs, honeycombs and cracks. Master Builders standards are to be used as guidelines for concrete repairs.

#### **3.3 PROTECTION**

- .1 Traffic Control - no individuals permitted in areas during application and until surface has cured, including protection after cure, against damage by others working in over the area.
- .2 Compliance with OSHA, EPA, State and Local regulations or applicable agencies is mandatory when using these products.

#### **3.4 INSTALLATION/APPLICATION**

- .1 Primer shall be CEILCOTE 680 Primer/Saturant\*. Epoxy primer and hardener. It shall be applied by brush or roller to a Wet Film Thickness (WFT) of 2-5 mils.

\* To sparktest on concrete substitute to Ceilcote 680C (Conductive) Primer. Linings and coatings applied over 680C can be tested for holidays. A specific method for high voltage holiday testing is addressed in ASTM D-4787 "Standard Practice for Continuity Verification of Liquid/Sheet Linings Applied to Concrete".

Ingredients are to be mixed thoroughly and applied to concrete. Working time at 73°F (23°C) is approximately 45 minutes.

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#### **3.4 INSTALLATION/APPLICATION - continued**

- .2 Base coat shall be a mixture of **CEILCOTE Ceilline** Base coat Liquid and hardener; use Horizontal version for horizontal applications and Vertical version on verticals. It shall be trowel applied at a thickness of 30-50 mils. Roll the freshly applied base coat with a spiked roller to remove entrapped air, trowel marks and other unevenness. Allow the base coat to fully harden before proceeding to the next step.

Ingredients are to be mixed thoroughly and in sequence. Stir hardener into Base coat Liquid and continue mixing. Apply immediately, working time at 73°F (23°C) is approximately 45 minutes.

- .3 Mix and apply appropriate fiberglass saturant at 10-15 mils wet film thickness with a brush or roller to the hardened base coat.

Ingredients are to be mixed thoroughly and in sequence. Stir hardener into appropriate Saturant Liquid and continue mixing. Apply immediately. Working time at 73°F (23°C) is approximately 45 minutes.

- .4 Fiberglass reinforcement shall be one (1) layer of the Master Builders, Inc. 1.5 ounce mat or other mat reinforcement as recommended due to chemical environment. It is to be set into the wet saturant and pressed into the saturant by rolling with a paint roller, overlapping edges by 1-2 inches.

After being totally pressed into the saturant, it is then fully saturated (i.e. translucent) with additional catalyzed saturant, using a paint roller. Force out entrapped air with a ribbed spring or splice roller. Allow to hard cure before proceeding to the next step.

Ingredients are to be mixed thoroughly and in sequence. Stir hardener into Base coat Liquid and continue mixing. Apply immediately, working time at 73°F (23°C) is 45 minutes.

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**3.4 INSTALLATION/APPLICATION - continued**

- .5 Topcoat will vary upon chemical operating conditions. Selection is based upon requirements for each specific application. Refer to pertinent reference documents for applicable topcoat.

**NOTE:** The **CEILCOTE CeillLine** product designation is related to its corresponding topcoat selection, for example:

<b>Topcoat</b>	<b>CeillLine System</b>
CEILCOTE 232 FLAKELINE	CEILCOTE 232 CeillLine
CEILCOTE 6650 S CEILCRETE	CEILCOTE 6650 S CeillLine
CEILCOTE 2000 FLAKELINE	CEILCOTE 2000 CeillLine
CEILCOTE 505 COROLINE	CEILCOTE 505 CeillLine
CEILCOTE F/T COROCRETE	CEILCOTE F/T CeillLine

- .6 Installation Procedure provides further details on procedures listed previously.

**3.5 TESTING**

- .1 During application random wet film thickness reading shall be taken. Target thickness shall be 30-50 mils for the basecoat. A total target thickness depends on the topcoat selected.

**(Optional)** Utilize CEILCOTE 680C (Conductive) Primer and sparktest after Topcoat is hard at 15,000 to 20,000 volts to insure pinhole free lining.

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*(Concrete)*

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