



12/1/93

MASTER BUILDERS TECHNOLOGIES

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**CEILCOTE CEILCRETE 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 CEILCRETE 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 CEILCRETE 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 CEILCRETE types including 2500, 6400, 6640, 6650 and 695.

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## **GUIDELINE SPECIFICATION**

### ***CEILCOTE CEILCRETE SERIES***

#### ***(Concrete)***

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

#### **1.0 GENERAL**

##### **1.1 SCOPE**

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

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

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 similar systems. 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.

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

Physical properties and test methods for CEILCOTE CEILCRETE SERIES are listed in CEILCOTE CEILCRETE SERIES TECHNICAL DATA SHEET.

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- .1 Other reference documents include: CEILCOTE CEILCRETE INSTALLATION PROCEDURES, CEILCOTE Standard Specification for Concrete to Receive Monolithic Linings and Toppings - CPT-1, and CEILCOTE 380 or 380C Primer Technical Data Sheet.

#### **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 1-800-628-9990.
- .2 Master Builders Technologies Ltd. 3637 Weston Road, Toronto, Ontario, Canada, M9L1W1, 416-741-3830.
- .3 Tecnocreto, S.A. de C.V., Blvd. M. Avila Camacho #80, 3er Piso, 53390 Naucalpan, Mexico, Mexico 1-905-557-5544.

##### **2.2 MATERIALS**

- .1 Materials for CEILCRETE Series include:
  - CEILCOTE 380 or 380C (Conductive) Primer and hardener
  - CEILCOTE CEILCRETE Resin and Hardener
  - Appropriate Filler (S-1, B-4 or S-9(AR))
  - Cloth Reinforcement
  - Styrene Smoothing Liquid

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### **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 CEILCRETE 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.

- .2 Concrete must be dry. CEILCRETE will not tolerate the presence of moisture during application or curing.
- .3 Concrete quality must be addressed before the Ceilcrete 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 repair.

#### **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 or over the area.
- .2 Compliance with OSHA, EPA, State and Local regulations or applicable agencies is mandatory when using these products.

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### **3.4 INSTALLATION/APPLICATION**

- .1 Primer shall be CEILCOTE 380 Primer\*. Vinyl Ester concrete primer and hardener. It shall be applied by brush or roller to a film thickness of 3-5 mils.

\* To sparktest on concrete substitute CEILCOTE 380C (Conductive) Primer. To insure a pinhole free lining utilize this primer and sparktest at 100 volts per mil.

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

- .2 Basecoat shall be a mixture of CEILCRETE liquid, Hardener and appropriate powder. It shall be trowel applied at a thickness of 40-80 mils.

Ingredients are to be mixed thoroughly and in sequence. Stir hardener into CEILCRETE liquid then add powder and continue mixing. Apply immediately, working time at 73°F (23°C) is 40 minutes.

- .3 Glass cloth shall be CEILCOTE Type "H" or other cloth reinforcement as recommended due to chemical environment. It is to be immediately pressed into the trowel applied basecoat by rolling with a paint roller.

After being totally pressed into the basecoat it is then saturated with catalyzed CEILCRETE liquid using a paint roller and allowed to cure.

- .4 Topcoat shall be a mixture of CEILCRETE liquid, Hardener and appropriate powder. It shall be trowel applied at a thickness of 40-80 mils.

Ingredients are to be mixed thoroughly and in sequence. Stir hardener into CEILCRETE liquid then add powder and continue mixing. Apply immediately, working time at 73°F (23°C) is 40 minutes. The lining shall be finished by brushing or rolling with styrene smoothing liquid.

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

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### **3.5 TESTING**

- .1 During application random wet film thickness reading shall be taken. Target thickness shall be 60 mils for both base coat and topcoat yielding a total target thickness of 155 mils including the glass cloth reinforcement.
  - .2 Utilizing Conductive fillers, these systems cannot be sparktested.
  - .3 If sparktesting is desired and a conductive filler is being utilized (B-4 Powder) use S-1 Powder in the Base coat and sparktest before proceeding to topcoat application (at 100 volts per mil). This also requires the CEILCOTE 380 C (Conductive) Primer.
- \* This specification maybe used for all CEILCOTE CEILCRETE types including 2500, 6400, 6640, 6650 and 695. For Carbon filled systems use "B" designation and substitute B-4 Powder in place of S-1, i.e. CEILCOTE 2500S CEILCRETE (silica filled) CEILCOTE 2500B CEILCRETE (carbon filled). Substitute appropriate number for abrasion resistant systems use "AR" designation and substitute S-9AR Powder in place S-1, i.e. CEILCOTE 2500AR CEILCRETE (Abrasion Resistant).

#### **Master Builders, Inc.**

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