

**CEILCOTE® LINING SERIES\***  
*Vinyl ester lining systems*  
*for*  
**STEEL SUBSTRATES**

**NOTES TO THE SPECIFIER**

The specification information below is intended for use by architects, engineers or other specifiers in defining the criteria needed to specify these reinforced polyester or vinyl ester lining systems.

1. This document has been prepared to assist specifiers in the preparation of specifications for CEILCOTE® LINING 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 the Lining Series 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 the CEILCOTE LINING SERIES TYPES including 25, 64, 74 and 652.

**1.0 GENERAL**

**1.1 SCOPE**

- A. This specification covers the surface preparation and application of CEILCOTE Lining Series as normally encountered in field installations.
- B. Deviations from this specification due to unforeseen or unknown field conditions, must be authorized by Master Builders.
- C. The contractor shall furnish all materials, tools, equipment, appliances, transportation, labor and supervision required during the preparation and installation process.

**1.2 PRE-QUALIFICATION**

- A. Applicator of material must be approved by material manufacturer and have at least (5) years experience in the application of this product or similar systems. Previous experience must be verified by (3) references having similar applications.
- B. 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; and 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 by written addendum or amendment.

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

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

- .1 Other reference documents include: CEILCOTE 370 Data Sheet and CEILCOTE Standard Specification for Steel Substrates to Receive Monolithic Linings - CPT-2.

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

- .1 For application steps, the surface temperature, air temperature and material temperature should be between 50 degrees F (10 degrees C) and 110 degrees 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.

- .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-MBT-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 011-525-557-5544.

### **2.2 MATERIALS**

- .1 Materials for CEILCOTE Lining Series include:
  - CEILCOTE 370 Primer and Hardener
  - CEILCOTE Lining Series Resin and Hardener
  - Thin Film Curing Aid
  - Appropriate Filler (S-1)
  - Cloth Reinforcement (1-1/2 oz. mat and "C" glass surface veil)

## **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 Lining Series systems requires the steel surface to be sandblasted to "White Metal" in accordance with SSPC SP5-63 or NACE No.1 using a clean, dry blasting media and a 3.0 mil anchor pattern. Blasted surfaces must be primed immediately after blasting or within an eight hour shift.

### **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.

### **3.4 INSTALLATION/APPLICATION**

- .1 Primer shall be CEILCOTE 370 primer and hardener. It shall be applied by brush or roller to a film thickness of 1 to 4 mils, as per CEILCOTE 370 Data Sheet. Ingredients are to be mixed thoroughly and applied to concrete. Working time at 73°F (23°C) is approximately 45 minutes.
- .2 Base coat shall be a mixture of CEILCOTE Lining Series Liquid, Hardener and appropriate powder. It shall be trowel applied at a thickness of 40 to 80 mils. Ingredients are to be mixed thoroughly and in sequence. Stir Hardener into CEILCOTE Lining Series liquid then add powder (S-1) and continue mixing. Apply immediately, working time at 73°F (23°C) is 40 minutes.
- .3 Glass cloth shall be (2) layers of 1-1/2 oz. glass mat and (1) layer of "C" glass surface veil. Press glass onto base coat, roll on catalyzed resins and roll out entrapped air with a ribbed roller. Repeat procedure for second layer of mat. Press in the "C" surface veil and roll it out until it is completely saturated.
- .4 Topcoat shall be a mixture of CEILCOTE Lining Series topcoat Liquid and Hardener. It shall be roller or spray applied. Ingredients are to be mixed thoroughly and in sequence. Stir hardener into CEILCOTE Lining Series liquid and apply first resin coat. Second coat is repeat procedure except that thin film curing aid is added to the mixture.
- .5 Installation procedure provides further details on procedures listed previously.

### **3.5 TESTING**

- .1 After base coat and glass reinforcement are hard, spark test at 15,000 to 20,000 volts to ensure pinhole free lining.
- .2 Dry film thickness can be measured with a Dry Film Thickness Gauge (i.e. Elcometer or equivalent).

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