



6/3/94

MASTER BUILDERS TECHNOLOGIES

2.68SC

**CEILCOTE 663 CEILGARD**

*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 663 CEILGARD**, 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 663 CEILGARD 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.

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## GUIDELINE SPECIFICATION

### ***CEILCOTE 663 CEILGARD***

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

The specification information below is intended for use by architects, engineers or other specifiers in defining the criteria needed to specify this protective barrier coating systems for new concrete.

#### **1.0 GENERAL**

##### **1.1 SCOPE**

This specification covers the surface preparation and application of CEILCOTE 663 CEILGARD 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 product. 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 coating by written addendum or amendment.

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

Physical properties and test methods for CEILCOTE 663 CEILGARD are listed in CEILCOTE 663 CEILGARD TECHNICAL DATA SHEET.

- .1 Other reference documents include: CEILCOTE Standard Specification for Concrete to Receive Monolithic Linings and Toppings - CPT-1.

### **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 <90% humidity 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 Tecocreto, S.A. de C.V., Blvd. M. Avila, Camacho #80, 3er Piso, 53390 Naucalpan, Mexico Mexico 525-557-5544.

### **2.2 MATERIALS**

- .1 Materials for CEILCOTE 663 CEILGARD include:
  - CEILCOTE 680 or 680C (Conductive) Primer and hardener (if required)
  - CEILCOTE 663 Ceilgard Resin and Hardener
  - CEILCOTE 663G Ceilgard Resin and Hardener

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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 663 CEILGARD 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, mechanical abrasion, high pressure water blasting and/or centrifugal airless wheel shot blasting. Abrasive should be clean, dry and free of contaminants. A blotter test done periodically will ensure this. A clean surface with a desired profile or texture similar to 40-60 grit sandpaper.

- .2 For maximum bond strength dry concrete is preferred.
- .3 Concrete quality must be addressed before the CEILCOTE 663 CEILGARD 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. Refer to Specification No. CP-11 and installation procedure #2.68I for CEILCOTE 663 CEILGARD.

**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 CEILCOTE 663 Ceilgard is a self priming coating system.

\* **(Optional)** -- Where extremely porous concrete is present, CEILCOTE 680 Primer may be required. Where high voltage holiday detection is desired, primer shall be CEILCOTE 680C (Conductive) Primer (with hardener). Sparktest at 100 volts per mil. Apply at 8 to 12 mils wet film thickness.

.2 Basecoat shall be a mixture of CEILCOTE 663 CEILGARD Series liquid and hardener. It shall applied at a thickness of 6-9 mils. Ingredients are to be stirred thoroughly before mixing.

Ingredients are to be mixed thoroughly and in sequence. Stir hardener into liquid. Apply immediately, working time at 75°F (24°C) is 2-3 hours.

.3 Topcoat shall be a mixture of CEILCOTE 663 CEILGARD liquid and hardener. It shall be applied at a wet film thickness of 6-9 mils. Ingredients are to be stirred thoroughly before mixing.

.4 CEILCOTE 663 CEILGARD may be applied by means of brushing, rolling or spraying. If spraying is employed use conventional or airless spray systems.

.5 Manufacturer's Technical Data and Installation Procedure provides further details on information listed previously.

### **3.5 TESTING**

.1 During application random wet film thickness readings shall be taken. Target thickness shall be 6-9 mils for both basecoat and topcoat yielding a total target thickness of 12 to 18 mils.

.2 Where CEILCOTE 680C (Conductive) Primer has been applied for holiday detection, sparktest at 100 volts per mil with a holiday detector in accordance with ASTM D 4787-88 method. Mark leaks with water soluble marker. Repair leaks and re-test repair area.

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**3.6 CAUTION**

When working outside or in direct sunlight, concrete "gassing" or "breathing" may occur when the surface temperature is rising due to sunlight or increasing ambient temperature. This can cause bubbles or holes in the applied floor, lining or coating. When this problem occurs it is necessary to shade the surface from sunlight and/or apply the material in the cooler evening or at night so that initial cure can take place without air escaping from the concrete. Consult Master Builders for the detailed recommendation.

**Master Builders, Inc.**

**United States**

23700 Chagrin Boulevard  
Cleveland, Ohio 44122-5554  
(800) MBT-9990  
Fax: (216) 831-6910

**Canada**

3637 Weston Road  
Toronto, Ontario M9L 1W1  
(800) 387-5862  
Fax: (416) 741-7925

**Mexico**

Bld. M. Avila Camacho 80, 3er Piso  
53390 Naucalpan, México  
011-525-557-5544  
Fax: 011-525-395-7903

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