

# Specifications for Wall and Ceiling Coating

## Part 1 Scope

### Product and Application

This specification describes the application of a 100% solids, odorless epoxy wall coating system applied over concrete masonry unit (CMU's) or concrete walls and ceilings at a minimum thickness of 20-25 mils(DFT).

#### 1.1 Acceptable Manufacturers

**ICO Glaze** as manufactured by International Coatings of Franklin Park, IL or approved equivalent epoxy resin coating system.

#### 1.2 Performance Characteristics

1. Tensile Strength (ASTM D-638)
  - Minimum - 1500 psi
2. Tensile Elongation (ASTM D-638)
  - Minimum -
3. Hardness, Shore D (ASTM D-2240)
  - Maximum - 80
4. 60° Gloss
  - Minimum - 100
5. Gardner Impact Strength
  - Minimum 80 Inch Pounds
6. Bond Strength to Concrete
  - 400psi (Concrete Fails)
7. Vapor Transmission Rates (ASTM E-96)
  - .03 perms Maximum
8. Water Absorption (ASTM D-1044)
  - 0.2% in 24 hours, Maximum
9. Percent Solids
  - 100%
10. Vertical Sag (per coat) @ 70°F
  - ICO Glaze Base Coat - 15 mils, Minimum
  - ICO Glaze Top Coat - 10 mils, Minimum
11. Chemical Resistance: must be able to withstand minimum 24 hour immersion in the following chemicals: 37% hydrochloric acid, 50% hydrogen peroxide, 88% lactic acid, 50% nitric acid, 80% sulfuric acid, 50% sodium hydroxide, bleach, chlorinated caustic cleaners, isopropyl alcohol.
12. Coatings must be odorless

#### 1.3 Materials

1. Component "A" shall be a modified epoxy resin of the epichlorohydrin bisphenol A type.
2. Component "B" shall be a blend of cycloaliphatic amines.
3. Filler material e.g., chopped fiber or similar inerts that might provide channel for moisture penetration, not to be used in coatings.

## 1.4 Surface Preparation

### A. CMU

1. The surface shall be pressure washed to remove all loose aggregate, oils and grease.
2. No cementitious fillers are to be used. If present, they must be removed by sand blasting, grinding or other mechanical means.
3. All old paint must be removed by suitable mechanical means.
4. Fill all cracks and spalled areas with **ICO Gel** epoxy filler and allow to dry.

### B. Concrete

1. The surface shall be mechanically prepped by sandblasting, high pressure water blasting or grinding. All old paint, oils and grease must be removed.
2. Fill all cracks and bug holes with **ICO Gel** epoxy filler and allow to dry.

### C. Cement Board

1. Cement board shall be installed by others. All walls must be plumb and level.
2. Surface prep shall consist of using tack cloths to remove all dust.

## 1.5 Priming

1. Prime all surfaces with **ICO Primer GL** at a coverage rate of 160 SF/gallon. Allow to dry tack free (4-6 -hours @ 70°F)

## 1.6 Mixing and Application

### A. Mixing

1. Mix the Part A pigment resin for about 30 seconds with a Jiffy-style mixer, using a low speed drill (<750 rpm).
2. Add in Part B hardener and Mix for an additional 60 seconds, or until completely uniform.

### B. Application

1. CMU
  - a. Apply **ICO Glaze Base Coat** with a medium (3/8" - 1/2") nap roller at a coverage rate of 100 SF/gallon. Work coating into block pores to ensure complete filling. Allow to dry tack free.
  - b. Apply **ICO Glaze Top Coat** with a fine-medium (1/8" - 1/4") nap roller at a coverage rate of 160 SF/gallon.
  - c. (Optional) Specify **ICO Glaze Top Coat AB**, anti-bacterial top coat in place of B.1.b. above.
  - d. Final dry film thickness (DFT): 25 mils, minimum.
  - e. Do not apply below 50°F.
2. Concrete
  - a. Apply **ICO Glaze Top Coat** with a fine-medium (1/8" - 1/4") nap roller at a coverage rate of 160 SF/gallon. Allow to dry tack free.
  - b. Apply a second coat of **ICO Glaze Top Coat** at a coverage rate of 160 SF/gallon.
  - c. (Optional) Apply **ICO Glaze Top Coat AB** in place of B.2.b. above
  - d. Final DFT: 25 mils, minimum.
  - e. Do not apply below 50°F.

### 3. Cement Board

- a. All bug holes to be filled with **ICO Gel**.
- b. Apply 2" wide fiberglass tape over joints embedded thoroughly in **ICO Gel**. Allow to dry hard.
- c. Sand geled areas to remove rough spots. Reapply **ICO Gel** to rough areas to obtain smoother surface. Allow to dry. Re-sand thoroughly.
- d. (Optional) In place of **ICO Gel**, a cementitious-based filler/tape joint material can be used. Exact material must be approved by manufacturer.
- e. Apply **ICO Glaze Top Coat** at a coverage rate of 160SF/gal. Allow to dry tack free.
- f. Apply second coat of **ICO Glaze Top Coat** at a coverage rate of 160 SF/gal. Total film thickness = 20 mils.
- g.(Optional) Apply **ICO Glaze Top Coat AB** antibacterial in place of B.3.f.

#### 1.7 Cleanup and Protection

1. Cleanup of tools can be done by using toluene, xylene, MEK or mineral spirits, but before the products have set.
2. The final coat should not be put back in service for at least 24 hours at 75°F (48 hours at 50°F). Harsh chemical cleaners should not be used for the first 7 days after application but if used, must be rinsed immediately.

#### 1.8 Warranty

The above system is warranted against chemical attack and delamination for a period of one year from the date of installation.

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