# ICO-GLAZE

## Product Data Sheet

**Product Description**
**ICO-Glaze®** is our two part, 100% solids, zero VOC epoxy wall and ceiling coating designed for withstanding some of the toughest conditions in industrial, institutional and commercial establishments. The basic **ICO Glaze** system, designed to seal block walls and other porous CMU surfaces without use of any block fillers, is applied by brush, roller or spray at 20-30 mils total dry film thickness, consisting of one coat each of **ICO Primer XT, ICO Glaze Base Coat** and **ICO Glaze Top Coat.** It has excellent dry as well as damp adhesion to most well prepared substrates. It dries to a high gloss, easily cleanable finish and is resistant to mold and moisture penetration. Its flexibilized formulation (with a 9% tensile elongation) enables it to withstand thermal shock better than conventional, more brittle epoxies.

**ICO Glaze** is available in a variety of systems (in addition to the basic system described above):
- **ICO Glaze ES –** for rendering block walls smooth by filling joints with **ICO Gel**
- **ICO Glaze CC –** for concrete walls/cement board; bugholes filled with **ICO GEL.**
- **ICO Glaze FG –** incorporates scrim cloth for enhanced crack resistance.
- **ICO Glaze UV –** addition of UV resistant urethane top coat - **ICO Glaze AB –** addition of anti-bacteria additive to top coat for better mold resistance.

While designed basically as a protective coating for cementitious substrates, our Glaze systems are also applicable on metal, wood and tile surfaces.

**Product Application**
**ICO-Glaze®** is particularly designed for use in damp, corrosive environments requiring seamless, non-porous surfaces that resist hot wash-downs, harsh chemical cleaners and moderate impact. Typical uses include meat and dairy plants, beer and beverage facilities, cleanrooms, kitchens, shower enclosures, car washes, hospital operating rooms and pharmaceutical plants.

By virtue of its odorless components, our **ICO Glaze** systems are well suited for repair and maintenance work even while the facility is in operation, as well as for new construction. Note that it is important to remove old coatings prior to application, as well as properly prepare the underlying substrate

**Chemical Resistance**
**ICO Glaze Top Coat** is equivalent in chemical resistance to our ICO Guard Coating, which is listed in our **Chemical Resistance Char**t. As such, it has excellent chemical resistance against virtually all of the standard CIP cleaners used in the food industry, as well as HCl, sulfuric and phosphoric acid (up to 80%), up to 50% nitric and all caustics. If a urethane top coat is used, please refer to our Chemical Resistance Chart under "Ure Guard 100" or "Urea Guard."

**Physical Properties**

| | | | |
|---|---|---|---|
| **Gardner Impact Strength:** | 80 inch-pounds | **Flexural Strength (D-790):** | 4140 psi |
| **Tensile Strength (ASTM C-638):** | 1560 psi | **Water Absorption (D-570):** | 0.2% in 24 hours |
| **Bond Strength to Quarry Tile:** | >1000 psi | **Hardness, Shore D (D-2240):** | 80 |
| **Tensile Elongation, Unfilled (D-638):** | 9% | **Taber Abrasion (D-1044):** | 105 mg. loss |
| **Vapor Transmission Rate (E:96):** | .03 perms | **60° Gloss:** | 100 CS 17, 1000g, 1000 cycles |

**Physical Characteristics** (Unless otherwise designated all data are for regular cure material, white)

| **Density, lbs./gal.** | | |
|---|---|---|
| | **Base Coat** | **Top Coat** |
| **Part A:** | 14.7 | 14.7 |
| **Part B:** | 8.6 | 8.6 |
| **A&B Mixed:** | 12.8 | 12.8 |

| **Viscosity @ 77°F, cps** | | |
|---|---|---|
| | **Base Coat** | **Top Coat** |
| **Part A:** | 20,800 | 20,800 |
| **Part B:** | 500 | 400 |
| **A&B Mixed:** | 3,900 | 3,400 |

| | **Base Coat** | | **Top Coat** | |
|---|---|---|---|---|
| **Mixing Ratios** | **By Volume** | **By Weight** | **By Volume** | **By Weight** |
| **Part A:Part B** | 2.3:1 | 4:1 | 2.3:1 | 4:1 |
| **Part A:Part B FC** | 3.4:1 | 6:1 | 3.4:1 | 6:1 |

**Shelf Life:**
One year in unopened containers if stored between 60° - 80°F

**Color Availability**
Available in all our standard colors
***Packaging and Coverage Rates***

**Glaze Base Coat:** 4 gallon kits, 400 -640SF (10 – 15 mils)
**Glaze Top Coat:** 4 gallon kits, 654SF (10mils)

| **Curing Times** | | **40°F** | **50°F** | **70°F** | **90°F** |
|---|---|---|---|---|---|
| **Base Coat** | **Pot Life:** | --- | 50 min | 35 min. | 12 min. |
| | **Working Time:** | --- | 35 min | 25 min. | 15 min. |
| | **Tack Free:** | --- | 9 hrs. | 4.5 hrs. | 2 hrs. |
| | **Hard, No Indentation** | --- | 26 hrs. | 15 hrs. | 4 hrs. |
| | **Pot Life:** | --- | 65 min | 55 min. | 20 min. |

| | | | | | |
|---|---|---|---|---|---|
| **Top Base Coat** | **Working Time:** | --- | 50 min | 30 min. | 20 min. |
| | **Tack Free:** | --- | 12 hrs. | 6.5 hrs. | 4.5 hrs. |
| | **Hard, No Indentation** | --- | 30 hrs. | 18 hrs. | 5.5 hrs. |
| **Base/Top Coat FC** | **Pot Life:** | 20 min | 20 min | 15 min. | --- |
| | **Working Time:** | 35 min | 25 min | 20 min. | --- |
| | **Tack Free:** | 16 hrs. | 10 hrs. | 4 hrs. | --- |
| | **Hard, No Indentation** | 32 hrs. | 26 hrs. | 12 hrs. | --- |

**Installation (of ICO Glaze System)**

***Please refer to our Application Specs for detailed instructions on our other Glaze Systems. Particular care must be taken to follow those instructions precisely to assure proper installation***.

1. All surfaces should be power washed or sand blasted to remove all old paints, sealers and other contaminants, leaving a clean, abrated surface. Roughen any smooth, well adhering epoxy coatings.

2. Deep holes or eroded joints should be filled with **ICO-Gel** epoxy gel and allowed to dry. Sand off any protuberances.

3. Prime new walls with ICO Primer XT at about 160 SF/gal. Recoat window @ 70°F: 10-20 hours, If block still quite porous repeat priming step.

4. Mix ICO-Glaze Base Coat Part A at low speeds (less than 700 rpm) for 30-60 seconds with a paint or "jiffy style" blade driven by a heavy duty hand drill, then add in Part B and mix for another 30-60 seconds, or until uniform.

5. Apply ICO-Glaze Base Coat with a medium nap roller (3/8"), squeegee, blade or an airless sprayer. Typical application rate: 100SF/gallon. Allow to dry tack free. Recoat window is 5-15 hours at 70°F.

6. Mix **ICO-Glaze Top Coat** as described in Paragraph 4.

7. Apply **ICO-Glaze Top Coat** at a coverage rate of 160 SF/per gallon with a fine to medium nap roller (1/4") or spray on with an airless sprayer. Recoat window is 6-20 hours at 70°F.

**Failure to follow the above instruction, unless expressly authorized by an Milamar Technical Service Representative, will void** our **material warranty.**

**Precautions**

**1. Do not apply over old paint; remove completely or, on block walls, until about 50% of masonry surface exposed.**
**2. Do not apply Glaze Base or Top Coat below 50°F; instead use "FC" version of each (down to 40°F).**

**Product Specification**

The specified area shall receive an application of **ICO-Glaze** as manufactured by **Milamar Coatings, LLC. of Oklahoma City, Oklahoma**. The system shall be installed by precisely following the manufacturer's published recommendations pertaining to surface preparation, mixing, and application. The material shall be a low odor, solvent-free, 100% solid, high gloss flexibilized epoxy system with good resilience to resist thermal and mechanical shock. The system must adhere to damp as well as dry concrete, wood, metal, tile, terrazzo, and sound existing epoxy coatings. It shall have an elongation factor of 9% in the unfilled form, when tested using, ASTM D-638. The film hardness shall be a Shore D of 80. The system shall be unaffected by oils, greases, and resist such chemicals as 36% hydrochloric acid, 30% nitric acid, 50% sulfuric acid and 50% sodium hydroxide. It also should be unaffected by toluene, xylene, methanol and perchlorethylene.

The data statements and recommendations set forth in this product information sheet are based on testing, research and other development work which has been carefully conducted by us, and we believe such data. Statements and recommendations will serve as reliable guidelines. However, this product is subject to numerable uses under varying conditions over which we have no control, and accordingly we do NOT warrant that this product is suitable for any particular use. Users are advised to test the product in advance to make certain it is suitable for their particular production conditions and particular use or uses.

**LIMITED WARRANTY**

Milamar Coatings products are manufactured to be free of defects in material and workmanship in meeting the properties specified on its individual Product Data Sheets. Users and installers of Milamar Coatings products are solely responsible for determining the suitability of the products for specific product applications. Milamar Coatings makes no Warranty or Guarantee, express or implied, including warranties of fitness, design compatibility or merchantability, for any particular use and shall have no responsibility or liability, including direct, indirect or consequential damages, due to injury, delay or third party claims for installation or repair. Likewise, Milamar Coatings assumes no liability of any nature for products that are adjusted in the field or that do not utilize all specified Milamar Coatings components. Should any Milamar Coatings product be proved to be defective within one year from the date of shipment, Milamar Coatings will, at its sole discretion, replace the material; issue a credit to the customer's account; or provide a cash refund for the initial, paid purchase price of the material. Potential claims regarding product quality must be received in writing by Milamar Coatings within 30 days of the discovery of such potential defect. This Warranty is exclusive of all other warranties, expressed or implied, and may only be adjusted in writing, signed by an officer of Milamar Coatings, L.L.C.

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