



# ICO Guard Cold Cure

## Product Data Sheet

### Product Description

ICO Guard Cold Cure™ is a three part, odorless epoxy flooring that can be trowel-applied in a single step application in any thickness down to 3/16" at temperatures as low as 32°F. It is a resin-rich material that does not require a primer or sealer coat and has excellent wear resistance to heavy loads. Cure hard times range from 18 hours at 50°F to 34 hours at 32°F.

ICO Guard Cold Cure is available in all our standard colors in premeasured basic kits, bulk packs and drum kits. It has excellent damp adhesion and thermal shock resistance, withstanding steam cleaning in below freezing conditions.

### Typical Applications

ICO Guard Cold Cure™ is particularly recommended for resurfacing cooler room floors to convert rough, uneven surfaces to more durable and fork-lift-friendly traffic. It can also be used for patching deep holes in freezers (at least 1" deep) at temperatures down to -40°F. As a 100% solids, odorless material, it is a far more suitable product than solvent-based materials like MMA's in food environments where contamination of product must be avoided.

### Chemical Resistance

ICO Guard Cold Cure™ is particularly recommended for areas subjected to such chemical solutions as 50% sulfuric, 30% phosphoric, 30% nitric, 50% sodium hydroxide, toluene and xylene. A more complete list of chemical resistances is available in the Milamar Coatings Chemical Resistance Chart under "ICO Guard™".

### Physical Properties

<b>Tensile Strength (ASTM C-307):</b>	2030 psi	<b>Gardner Impact Strength (D-2794):</b>	160 inch-lbs.
<b>Compression Yield (C-579):</b>	5170 psi	<b>Bond Strength to Quarry Tile:</b>	>1000 psi
<b>Flexural Strength (D-790):</b>	2550 psi	<b>Vapor Transmission Rate (E-96):</b>	03 perm
<b>Coefficient of Thermal Expansion (D-696):</b>	1.7x10 <sup>-7</sup> per °F	<b>Water Absorption (D-570):</b>	0.3% in 24 hrs.

### Physical Characteristics

Density, lbs./gal	
<b>Part A:</b>	9.5
<b>Part B:</b>	8.9
<b>A&amp;B Mixed:</b>	9.4

Viscosity @ 77°F, cps	
<b>Part A:</b>	450
<b>Part B:</b>	1000
<b>A&amp;B Mixed:</b>	650

Mixing Ratios (Part A : Part B)	By Volume	By Weight
<b>Liquids Part A : Part B:</b>	2.2:1	2.4:1
<b>ICO Fill Aggregate : Liquid:</b>	2:1	3:1

Color Availability:
Standard Colors: White, Gray, Dark Gray, Beige, Yellow, Red, Green, blue, Brown, & Black
<b>Shelf Life:</b> 1 year at 77°F in unopened containers.

Packaging and Coverage Rates	
<b>Basic Kit:</b>	33 SF @ ¼" depth
<b>Bulk Pack:</b>	3300 SF @ ¼" depth
<b>Drum Kit:</b>	3300 SF @ ¼"

Curing Times @	32°F	40°F	50°F
<b>Pot Life:</b>	15 min.	10 min.	10 min.
<b>Work Time:</b>	10-12 min.	8-10 min.	6 min.
<b>Tack Free:</b>	15 hrs.	10 hrs.	5 hrs.
<b>Hard, Foot Traffic:</b>	28 hrs.	20 hrs.	12 hrs.
<b>Hard, Fork Lift Traffic:</b>	34 hrs.	24 hrs.	18 hrs.

### Installation

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

1. New concrete should be allowed to cure a minimum of 28 days and/or be checked with a rubber mat or plastic sheet to insure adequate curing times have occurred.
2. All surfaces to be covered should be power washed, shot blasted, acid etched, scarified or sanded to present a clean, sound substrate to which to bond to. The prepared surface should have a ph of 7.
3. The ingredients should be mixed in the prescribed ratios, using a low speed paddle-style mixer, (maximum 750 rpm), until uniform in color and consistency. Mix Part A and Part B and then slowly add aggregate and pigment. Mixing should be done outside the cooler or freezer at temperatures at 50°F or higher to facilitate trowelling.
4. Contents must be emptied quickly onto the floor.
5. Do not mix less than the prescribed amount of any ingredient or add any solvent to the mix.
6. Apply with screeds or notched trowels to a minimum thickness of 3/16" inch.
7. After the finish trowelling, the surface may be back rolled with a short nap roller dipped in isopropyl alcohol to remove blemishes. Aggregate can then be broadcast into the surface for obtaining a non-slip texture.

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

#### **Precautions**

1. Do not apply below 32°F, unless in thickness >1" (Consult Milamar Technical Service).
2. Keep material stored between 50° and 70°F and, if possible, mix at those temperatures.
3. If slab temperature is close to freezing and material gets too sticky to trowel, remove 1 to 2 quarts of sand from the mix.
4. Can go over damp surface, but not standing water or water soaked floors.
5. Do not apply above 50°F; use ICO Guard Fast Cure instead.

#### **Product Specifications**

The specified area shall receive an application of ICO Guard Cold Cure™ 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, three part, solvent free, and 100% solids epoxy system with moderate resilience to resist thermal and mechanical shock. It should be trowel applied normally at 1/4" thickness in one application without needing a topcoat. It shall be a resin-rich mix ratio of 3:1 by weight, ICO-Fill aggregate to resin and hardener. It shall have an

elongation of 9% in the unfilled form when tested using ASTM D683. The system shall be usable down to temperatures of 32°F. It shall be water wipeable and have excellent adhesion to wood, metal, tile, brick and damp as well as dry concrete. It shall be self-priming except on surfaces with extreme porosity. The system shall be unaffected by oils and greases and have high chemical resistance against such acids as 36% hydrochloric, 30% nitric, 50% sulfuric, 30% phosphoric and 20% lactic. It shall resist such caustics as 50% sodium hydroxide and 26% ammonium hydroxide.

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, either 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.

#### **Milamar Coatings, L.L.C.**

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