



# ICO Hi Guard Slurry

## Product Data Sheet

### Product Description

**ICO Hi Guard Slurry** is a low odor, 100% solids, three part epoxy novolac floor system. It has excellent chemical resistance to many concentrated acids, including 98% sulfuric acid, as well as most alkalis and some solvents. The enhanced toughness of the formulation allows for better resistance to thermal and mechanical shock compared to harder, more brittle conventional materials. Applied at a typical quarter inch thickness, **ICO Hi Guard Slurry** will withstand frequent heavy mechanical wear without need of constant maintenance. It can be top coated with **ICO Hi Guard Coating** for ease in cleaning. As a resin-rich system it resists liquid penetration throughout the entire thickness.

**ICO Hi Guard Slurry's** lack of odor, single step application ability, and quick drying capabilities make it an ideal floor resurfacer in existing facilities. With its outstanding toughness, as indicated by impact strengths greater than 160 inch pounds, it resists mechanical impact far better than conventional, more brittle epoxy floors.

### Typical Application

**ICO Hi Guard Slurry** is particularly recommended for chemical plants, secondary containment, chemical storage rooms in food and beverage plants, and other high corrosion areas. It is our recommended product for withstanding 98% sulfuric acid. Its resin-rich formulation provides a dense, impermeable barrier to liquid penetration, even if the top surface is gouged. Its excellent wettability allows it to adhere to both damp and dry concrete, metal, wood, brick and tile.

### Chemical Resistance

**ICO Hi Guard Slurry** has excellent resistance to virtually all caustics and such acids as 98% sulfuric, 85% phosphoric, 30% chromic, 30% nitric and 37% hydrochloric. A more complete list of chemical resistance is available in the Milamar Coatings Chemical Resistance Chart or contact Milamar Technical Assistance.

### Physical Properties

<b>Tensile Strength (ASTM C-307):</b>	1285 psi	<b>Flammability (D-635):</b>	Self Extinguishing
<b>Tensile Elongation (C-307):</b>	5%	<b>Vapor Transmission Rate (E96):</b>	.07 perm
<b>Flexural Strength (C-580):</b>	1940 psi	<b>Coefficient of Thermal Expansion (D-696):</b>	5.9 x 10 <sup>-5</sup> per °F
<b>Compression Strength (C-579):</b>	6165 psi	<b>Gardner Impact (D-2794):</b>	>160 inch pounds
<b>Hardness, Shore D (D-2240):</b>	80	<b>Water Absorption:</b>	0.1% in 24 hours
<b>Bond Strength to Quarry Tile:</b>	>1000 psi		

### Physical Characteristics

Density, lbs./gal		Viscosity @ 77°F, cps	
<b>Part A:</b>	9.8	<b>Part A:</b>	450
<b>Part B:</b>	8.8	<b>Part B:</b>	600
<b>A&amp;B Mixed:</b>	9.5	<b>A&amp;B Mixed:</b>	500
<b>Curing Times</b>	<b>50°F</b>	<b>70°F</b>	<b>90°F</b>
<b>Pot Life:</b>	35 min	30 min	25 min
<b>Working Time:</b>	35 min	25 min	30 min
<b>*Hard, Foot Traffic:</b>	24 hrs.	10 hrs.	5 hrs.

Mixing Ratios	ICO Hi Guard Slurry	
	By Volume	By Weight
Part A:Part B	2.0:1	2.2:1
Aggregate:Liquid	1:1	1.6:1

Color Availability	Packaging and Coverage Rates	
<b>Standard Colors:</b> Gray, Dark Gray, Beige, Blue, Red, Yellow, Green, Brown and Black	<b>Bulk Pack:</b>	400 SF at ¼" depth
	<b>Drum Pack:</b>	2000 SF at ¼" depth
Shelf Life: 1 year at 77°F in unopened containers.		

### 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 polyethylene sheet (ASTMD4263) or by the RMA Test (using calcium chloride granules). Check with Milamar Technical Services when results are obtained.
2. All surfaces to be covered should be power washed, shot blasted, acid etched, scarified or sanded to present a clean, sound abraded surface (minimum profile 20-30 grit sandpaper).
3. Priming is not necessary with this resin-rich mix; however, to help minimize out-gassing out of a porous substrate, it is recommended...especially on new concrete. Apply ICO Primer LV or LVFC at a coverage rate of about 200SF/gal, depending on porosity, and allow to dry tack free. Re-prime any dry appearing areas. Do not allow to dry hard (no indentation) without sanding first.
4. The three ingredients should be mixed in the prescribed ratios, using a low speed, paddle-type mixer. Mix Part A and Part B first for 1 minute then add 30 mesh aggregate and dry pigment and mix for an additional 1-2 minutes until uniform in color and consistency. Do not mix less than the prescribed liquid ingredients or add solvent.

5. The prepared mix is normally applied to the desired thickness by means of, gauge rake, pin screeds or screed bar.
6. Allow the rough spread mix to set a few minutes before then seed to refusal with aggregate.
7. Top Coat with **ICO Hi Guard Coating** or any other suitable Milamar Coatings Top Coat
8. A suitable aggregate may be broadcast into the surface after back-rolling to provide a more anti-slip texture. It is advisable to test various types. **NOTE: 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 50°F.

### Product Specifications

The specified area shall receive an application of **ICO Hi Guard Slurry** as manufactured by Milamar Coatings, LLC of Oklahoma City, Oklahoma. The material shall be installed by precisely following the manufacturer's published recommendations pertaining to surface preparation, mixing and installation. It shall be a resin-rich mixture of no more than a 1:1 (by volume) ratio of aggregate: liquid. It should be screed applied at 20 SF/gal and seeded to excess to achieve 1/4 inch thickness in a single application. The compressive strength shall not exceed 6165 psi when tested in accordance with ASTM C-579. The Gardner Impact shall exceed 160 inch pounds. The system shall be unaffected by oils, greases, gasoline, 50% sodium hydroxide, 50% sulfuric acid, 10% nitric acid, and citric acid for 7 day immersion.

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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