



ICO-SUPER GUARD COATING™

Product Data Sheet

Product Description

ICO Super Guard Coating™ is a two part, low odor, 100% solids epoxy novolac coating. As such it is our highest chemically resistant coating for most concentrated acids, caustics and solvents. Applied by brush, roller, or spray, **ICO Super Guard Coating™** is normally applied at a coverage rate of 160 SF per gallon, yielding 10 mils DFT per coat; however, on horizontal surfaces, it can be applied in virtually any thickness in a single pass. Two, thinner coats are recommended for minimizing pinholes.

It finishes to a high gloss, easy-to-clean surface that is impervious to vapor and moisture transmission. **ICO Super Guard Coating™** can be applied on damp as well as dry concrete, concrete masonry units, tile brick and metal. For enhanced slip resistance, a suitable aggregate can be added in the base coat and for improved crack bridging characteristics, fiberglass reinforcement can be added.

Typical Application

ICO Super Guard Coating™ is particularly suitable as a secondary containment barrier either inside or outside, for concrete and other porous substrates. Particular uses include coating horizontal and vertical surfaces in tank farms containing a wide variety of chemicals or a few concentrated corrosive chemicals where at least 72 hour protection against spills is required. In such tanks farms, a minimum 60 mil thick system, consisting of two coats at 80 SF/gallon per coat, interspersed with silica sand, is recommended. For moderate to heavy wear conditions, such as in drum storage or truck unloading areas, our quarter inch trowelled material, **ICO Super Guard™** is recommended as a superior, long-lasting barrier. For trenches, sumps and pits, where conditions are normally more severe than secondary containment, use of our **ICO Liner** on vertical walls is recommended.

Chemical Resistance

ICO Super Guard Coating™ generally follows the chemical resistance of “**ICO Super Guard**” as listed in our Chemical Resistance Chart. However, some differences will exist, so consultation with **Milamar Technical Service** is recommended for specific applications.

Physical Properties

Tensile Strength (ASTM D-638)	: 6800 psi	Bond Strength to Quarry Tile	: >1000 psi
Tensile Elongation (D-638)	: 6.0%	Vapor Transmission Rate (E-96)	: .027 perms
Flexural Strength (D-790)	: 7035 psi	Water Absorption (D-570)	: 0.2% in 24hrs.
Hardness, Shore D (D-2240)	: 83	Taber Abrasion (D-1044)	: 86 mg loss.
Gardner Impact Strength(D-2794)	: 80 in. lbs.	60°Gloss	: 100

Physical Characteristics

Density, lbs/gal.	Mixing Ratios	By Volume	By Weight	
Pt. A :11.0	Pt. A : Pt. B	2:1	2.3:1	
Pt. B :8.9				
A&B Mixed :9.3	Curing Times @	50°F	77°F	90°F
Viscosity @ 77°F, cps	Pot Life	35 min.	30 min.	20 min.
Pt. A : 18,400	Working Times	20 min.	20 min.	15 min.
Pt. B : 500	Hard, Foot Traffic	14 hrs.	7 hrs.	3 1/2 hrs.
A&B Mixed : 4800	Maximum hardness and chemical resistance are achieved after 7 days at 77°F			

Color Availability

Standard colors: gray, dark gray, beige, red, green, brown, black.

Shelf Life: 1 year at 77°F in unopened containers.

Packaging and Coverage Rates (for 10 mil coverage)

1 Gallon Kit	: 160 SF
4 Gallon Kit	: 640 SF
100 Gallon Kit	: 16,000 SF

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 time has 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. Any bugholes should be filled with **ICO Gel** and allowed to dry before coating.
4. The two ingredients should be mixed in the prescribed ratios, using a low speed "jiffy-style" mixer, (maximum 750 rpm). Mix Part A for about 1 minute then, add Part B and mix until uniform in color and consistency (at least one additional minute.)
5. Do not mix less than the prescribed amount of any ingredient or add any solvent to the mix.
6. No priming is necessary on concrete of average porosity. On new concrete or old concrete with an open porosity and on wood surfaces apply **ICO Primer LV** or **FC** to help prevent outgassing, bubbling and pinholing from escaping entrapped air. Allow to dry.
7. Apply the mixed material with a short nap roller, a squeegee or a brush. Apply approximately 160 SF per gallon per coat to achieve 10 mils of coating.
8. Apply a second coat while the first coat is still tacky if using spike shoes or dry enough to walk on, but before 7 hours at 75°F. If more time has elapsed the first coat should be sanded before recoating..
9. A suitable aggregate may be broadcast onto the surface after backrolling to provide more anti-slip profile to the finished surface. It is advisable to test various types and sizes of aggregate to achieve the desired finish profile.

NOTE: Failure to follow the above instructions, unless expressly authorized by an ICO Technical Service Representative, will void our material warranty.

Precautions

1. **This is a fast reacting product; immediately pour onto floor after mixing and spread with notched squeegee. Recoat window without sanding at 70°F: 8 hours**
2. **A severe skin and eye irritant; check MSDS before use**
3. **Do not apply below 50°F**

Product Specification

The specified area shall receive an application of **ICO-Super Guard Coating™** 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 application. The material shall be a low odor, two part, solvent free 100% solids, high gloss flexibilized epoxy novolac system with good resilience to resist thermal and mechanical shock. It should be able to be roller applied at a minimum of 10 mils thickness per coat on vertical surfaces without sagging (at ambient conditions). The system must adhere to damp as well as dry concrete, wood, metal tile, terrazzo and sound existing epoxy and urethane coatings. It shall have tensile elongation of at least 6.0% when tested under ASTM-638. Its bond strength to quarry tile shall exceed 1000 psi when tested with an Elcometer pull test. Its hardness shall not exceed 83, as measured on the Shore D scale. The system shall be unaffected by oils and greases and shall withstand chemical attack for at least 72 hours against 98% sulfuric, 50% hydrofluoric acid, glacial acetic acid and acrylonitrile.

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.



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