ICO Guard SL

Product Data Sheet

Product Description

ICO Guard SL™ is a three part, 100% solids, USDA-approved epoxy flooring resurfacer. Normally applied between 1/16" and 1/8" thick in a single step self leveling application, ICO-Guard SL™ quickly and economically restores pitted and damaged concrete floors to a smooth and glossy finish. It has superior chemical resistance to most acids, caustics and solvents, compared to conventional amine-based epoxy systems. Its ability to resist impact is enhanced by its resilient formulation.

ICO Guard SL's™ resin rich mix allows for a single step application without need of a sealer coat. For more decorative floors, decorative flakes can be added, followed by a coat of our clear epoxy sealer, ICO-Sealer. For anti-slip textures, fine silica sand or aluminum oxide can be broadcast into the clear top coat. For faster turnaround times and applications down to 40°F, ICO-Guard SL FC™ can be used.

Typical Application

ICO Guard SL™ is an ideal system where a smooth, but chemical and wear resistant surface is required. Typical applications include dry food processing areas such as cereal plants and bakeries, laboratories, clean rooms, and electronic manufacturing plants. Applied as a self-leveling/seed system and top coated with ICO Guard Coating™, ICO-Guard SL™ can provide an economical, slip resistant, high build flooring system for heavy wear areas.

Chemical Resistance

ICO Guard SL™ is recommended for areas subjected to such chemical solutions as 80% sulfuric, 30% nitric, 85% phosphoric, concentrated lactic, 50% sodium hydroxide, toluene and xylene. A more complete list of chemical resistance is available in the Milamar Coatings Chemical Resistance Chart under "ICO Guard".

Physical Properties

Tensile Strength (ASTM C-307):	1810 psi	**Flammability (D-635):**	Self Extinguishing
Tensile Elongation (C-307):	10%	**Vapor Transmission Rate (E-96):**	.03 perms
Flexural Strength (C-580):	1760 psi	**Coefficient of Thermal Expansion (D-696):**	1.7×10^{-5} per °F
Compression Strength (C-579):	6100 psi	**Gardner Impact (D-2794):**	120 in lbs.
Hardness, Shore D (D-2240):	80	**Water Absorption (D-570):**	0.2% in 24 hours
Bond Strength to Quarry Tile:	>1000 psi	**Taber Abrasion CS17. 1000 cycles at 1 kg.:**	110 mg loss

Physical Characteristics

Density, lbs./gal	
Part A:	10.4
Part B:	8.6
A&B Mixed:	9.8

Viscosity @ 77°F, cps	
Part A:	700
Part B:	300
A&B Mixed:	630

Mixing Ratios	ICO Guard SL		ICO Guard SL FC	
	By Volume	By Weight	By Volume	By Weight
Part A : Part B	2.1:1	2.5:1	3.5:1	4.1:1
Aggregate : Liquid	1:1	1.5:1	1:1	1.5:1

Curing Times @		40°F	50°F	70°F	90°F
ICO Guard SL	Pot Life:	---	60 min.	50 min.	25 min.
	Work Time:	---	75 min.	60 min.	45 min.
	Tack Free:	---	30 hrs.	16 hrs.	8 hrs.
	Hard, Foot:	---	64 hrs.	30 hrs.	12 hrs.
	Hard, Truck:	---	75 hrs.	36 hrs.	18 hrs.
ICO Guard SL FC	Pot Life:	45 min.	40 min.	20 min.	---
	Work Time:	50 min.	45 min.	35 min.	---
	Tack Free:	16 hrs.	11 hrs.	4 hrs.	---
	Hard, Foot:	28 hrs.	22 hrs.	10 hrs.	---
	Hard, Truck:	34 hrs.	28 hrs.	14 hrs.	---

Color Availability

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

Packaging & Coverage Rates

4 gallon Kit 50 SF at 1/8" depth
100 SF at 1/16" depth

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. Cracks 1/8" wide or greater, pour joints and construction joints must be cleaned and filled with ICO Gel™. Patch all holes over 1/2" deep with ICO Patch™.

4. ICO Guard SL™ is a self-priming material; however any porous substrate should first be sealed with ICO-Primer LV or ICO Primer LV FC and allowed to dry tack free to minimize out gassing.

5. The three ingredients should be mixed in the prescribed ratios, using a low speed jiffy-style mixer (maximum 750 rpm), until uniform in color and consistency.

6. Do not add solvent to the mix.

7. Apply ICO Guard SL™ with a gauge rake, notched rubber squeegee or steel trowel. Use porcupine roller to help level the floor and break up air bubbles.

8. For an anti-slip, high wear resistant surface, apply ICO Guard SL™, seed to excess with silica sand, allow to dry and apply top coat of ICO Guard Coating™.

9. For applications down to 40°F or for faster cures use ICO Guard SL FC. Note that at temperatures below 60°F, however, the self-leveling properties diminish and the floor will have to be spread with steel trowels or less sand used.

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

Precautions

1. Only apply over a tack free primer to help prevent out gassing.
2. Do not apply below 50°F; use ICO Guard SL FC instead.
3. Do not apply less than 60 mils thick (100 SF/4gal kit).
4. Do not apply on a floor sloped > 1/8" per foot.
5. Do not apply fast cure version >70°F.
6. Do not apply in severe thermal shock environment.

Product Specification

The specified area shall receive an application of ICO-Guard SL™ 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, and solvent-free 100% solids epoxy system with moderate resilience to resist thermal and mechanical shock. It should be applied by notched trowel or squeegee in one application without needing a top coat. It shall be a

resin-rich mix ratio of 1:1, **ICO-Fill™** aggregate to resin and hardener. It shall have an elongation of 10% when tested using ASTM C-307 and Gardner Impact of 120 inch pounds. The compressive strength when tested in accordance with ASTM C-579 shall not exceed 6200 psi and the hardness shall not exceed 80 (Shore D). It shall have excellent adhesion to wood, metal, tile, brick and damp as well as dry concrete. The system shall be unaffected by oils and greases and have high chemical resistance against acids such as 50% sulfuric, 50% nitric, 88% lactic, 85% phosphoric and 20% acetic, as well as 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.

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