



ICO Iron Guard GS

Product Data Sheet

Product Description

Iron Guard is a three part, iron reinforced troweled epoxy floor for general service, severe wear and/or impact use. It can be applied in a single pass in any thickness down to 3/8" in a single pass in a temperature range of 50 – 90°F without need for a primer or top coat.

Unlike such commonly used steel-reinforced floors such as "Master Plate", **Iron Guard** uses special metal fillers that will not rust. It is a 100% solids, zero odor material and with recycled material, qualifies for Leeds points.

Chemical Resistance

Iron Guard GS is based on our "ICO Coat" resin system that withstands oils, grease, lubricating oils, caustic cleaners and some moderate concentrations of inorganic acids.

Typical Application

Iron Guard GS is intended for unusually severe wear applications where its high abrasion and impact resistance will provide much longer life spans than concrete or conventionally filled polymer toppings. Examples would include refuse transfer centers, heavy equipment maintenance facilities, heavy steel-wheeled traffic areas and heavy-use loading docks seeing high impact, such as gas cylinder transfer stations and beer distribution centers. For more corrosive conditions or where thermal shock is present, our Iron Guard product is the preferred choice.

Physical Properties

Tensile Strength (ASTM C-307):	1700 psi	Flammability (D-635):	Self-Extinguishing
Hardness, Shore D (D-2240):	85	Vapor Transmission Rate (E-96):	.03 perms
Bond Strength To Quarry Tile:	>400 psi	Water Absorption (D-570):	0.3% in 24 hours
Compression Strength (C-579):	9850 psi	Gardner Impact (D-2794):	>120 in. lbs.

Physical Characteristics

Density, lbs. /gal.	Viscosity @ 77°F, cps
Part A:	9.46
Part B:	8.40
A&B Mixed:	9.13
Part A:	800
Part B:	50
A&B Mixed:	4500

Mixing Ratios:	By Volume	By Weight
Part A : Part B	2.17:1	2.45:1
Aggregate : Liquid	3:1	5:1

Curing Times @:	50°F	70°F	90°F
Pot Life:	35 min.	30 min.	20 min.
Work Time:	40 min.	30 min.	15 min.
Tack Free:	18 hrs.	8 hrs.	3 hrs.
Hard, Foot Traffic:	28 hrs.	10 hrs.	6 hrs.
Hard, Truck Traffic:	30 hrs.	18 hrs.	10 hrs.

Shelf Life

1 year at 77°F in unopened containers

Color Availability

Standard colors: Gray, Dark Gray, Beige, Yellow, Red, Green, Blue, & Black.

Packaging and Coverage Rates

Basic Kit 17 SF at 3/8" depth
 Bulk Pack 170SF at 3/8" depth
 Drum Kit 1700 SF at 3/8" 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 for 28 days; however, if shorter times are necessary, a plastic sheet test and calcium chloride test should be taken. Call ICO Tech Service when data obtained.
2. Floor must be free of grease, oils and other contaminants and should be mechanically abraded, by shot-blasting, scarifying or diamond grinding to remove old poorly bonded coatings and obtain a minimum texture of 30 to 40 grit.
3. Iron Guard GS is a self-priming, resin-rich floor; however on porous or damp floors, use of our ICO Primer LV or LVFC is highly recommended. Apply at 200 – 250SF/gal and allow to dry tack free.
4. The three ingredients should be mixed in the prescribed ratios using a low speed (<700rpm) paddle style mixer, first with A & B components for at least 30 seconds followed by addition of aggregate and tint and mixed for another 30 seconds or until uniform in color and consistency.
5. Do not mix less than the prescribed amount of each component and do not add any solvent.
6. The prepared mix may be applied by a screed box or bar at about 16SF/basic kit and allowed to set for several minutes, before finish trowelling with a power trowel or by

hand. Do not over trowel. Trowelling may be enhanced by using isopropyl alcohol (IPA) sprayed **lightly** on the trowel. 7. After finish trowelling the surface can be back-rolled with a short nap roller dipped in IPA to remove light trowel marks and to obtain a more uniform appearance. No top coat necessary. For anti-slip properties we recommend aluminum oxide broadcast into the still wet surface – the size and amount dependent on desired texture.

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

Precautions

- 1. Do not apply below 50°F.**

Product Specification

The specified area shall receive an application of **Iron Guard GS** as manufactured by **Milamar Coatings LLC of Oklahoma City, Oklahoma**. The system shall be installed by precisely following the manufacturer published recommendations pertaining to surface preparation, mixing and application. The material shall be a low odor, three- part, and solvent free epoxy system, applied in a single pass in any thickness down to $\frac{3}{8}$ ". It shall be a resin-rich, self-priming mix with a ratio of Iron Guard Fill: liquid resin not to exceed 5:1 by weight. It shall have a compression strength of 9850psi, a tensile strength of 1700psi and an impact strength of 120 inch pounds. The system shall be unaffected by oils, greases, caustics and low to moderate concentrations of organic acids.

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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