



Resilient
Epoxy
Flooring
and
Grouting
Systems

PRODUCT DATA SHEET

ICO HI GUARD COATING GF™

Product Description

ICO Hi Guard Coating GF™ is a 100% solids glass flake-filled epoxy novolac coating specifically designed for primary containment conditions. As an odorless material, it can be applied by brush, roller or spray without need for special ventilation equipment even in confined spaces (see MSDS for specific details). It has excellent chemical resistance to a wide selection of concentrated chemicals, including caustics and most inorganic acids, making it an ideal substitute for conventional glass flake-filled vinyl ester linings

ICO Hi Guard Coating GF™ can be applied up to 20 mils per coat on vertical or overhead surfaces at 70°F. For optimal permeation resistance, a two-coat, 40 mil application is normally recommended. It has excellent damp as well as dry adhesion to concrete and most metal surfaces. No primer is required, except over rusted metal. It is available in pre-measured 4 gallon kits in all our standard colors. Application temperatures range from 50° to 90°F.

Product Application

ICO Hi Guard Coating GF™ is formulated for immersion situations where high chemical resistance is required. Such applications would include metal tank linings, masonry chests in paper mills that store spent acids, pickling lines, pits in plating operations and chemical plants where constant spillage is the norm. Reagent temperatures should not exceed 140°F.

Spalled or badly pitted concrete can be pre-treated with our **ICO Gel** epoxy patch material to smooth surface prior to application of the coating. For severe conditions, such as trenches, sumps and pits, our 1/8" thick, trowel applied novolac liner, **ICO Hi Guard Liner**, should be used. Do not apply below 50°F.

Chemical Resistance

ICO Hi Guard Coating GF™ is suitable for immersion use for chemicals rated as "I" in our Chemical Resistance Chart (see "Hi Guard" listing).

Physical Properties

Tensile Strength (ASTM D-638)	: 4200 psi	Gardener Impact Strength (D-2794)	: 80in – Ins
Tensile Elongation (D-638)	: 13%	Bond Strength to Quarry Tile:	: > 1000psi
Hardness, Shore D (D-2240)	: 75	Vapor Transmission Rate (E-96)	: .02 perms
		60° Gloss	: 104

Physical Characteristics

Mixing Ratios By Vol By Wt

Pt. A : Pt. B 1.5:1 1.9:1

Density, lbs/gal.

Pt. A : 9.1
Pt. B : 9.0
A&B Mixed : 9.05

Viscosity@77°F, cps

Pt. A : 20,500
Pt. B : 4,500
A&B Mixed : 8,000

Curing Times @	50°F	70°F	90°F
Pot Life	30min	25min	10min
Work Time	30min	30min	20min
Hard	24hrs	16hrs	5hrs

Maximum chemical and physical properties achieved after 7 days at 70°F

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

Color Availability

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

Packaging and Coverage Rates

4 gallon kit: 320SF

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. If not possible, then test with plastic sheet for rate of vapor transmission to surface and consult ICO Tech Service for recommendations.
2. Old concrete should be sand blasted to remove all old coating, down to a clean, abraded (40 to 50 grit minimum) surface.
3. Metal surfaces must be blasted to achieve a white metal finish (SSPC-SP-5) with a 2 to 3 mil angular profile. Coating should be applied within 8 hours of completion of prep.
4. No primer is necessary.
5. On worn, spalled concrete, pre-fill with **ICO Gel** epoxy patch and allow to dry tack free..
6. Mix Part A contents first for at least 30 seconds to ensure uniformity, then add Part B and mix with a slow speed (< 750rpm) jiffy style mixer, or until uniform in color. To prolong pot life, pour out into rolling pans.
7. Apply by brush or ¼" adhesive roller at a coverage rate of 80SF/gal at 70°F (=20 mils DFT). Allow to dry tack free.
8. Material may also be applied with an airless spray apparatus with a 40:1 pump ratio, 3500psi fluid pressure, 0.021" fluid tip and a minimum ¾" I.D. air input line.
9. Apply a second coat at the same coverage rate as the first. Note that if curing time for first coat exceeds 16 hours at 70°F, it must be sanded prior to applying second coat.

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

Precautions

1. Recoat windows without sanding at 70°F : 16 hours
2. Do not apply below 50°F
3. Mix Part A thoroughly to ensure glass flakes are distributed uniformly.

Product Specification

The specified area shall receive an application of **ICO Hi Guard Coating GF™** as manufactured by **International Coatings, Franklin Park, Illinois**. 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, 100% solids, high gloss epoxy novolac with good resilience to resist thermal and mechanical shock. 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 a vapor transmission rate of .02 perms as measured by ASTM E-96. The system shall be unaffected by oils, greases and have adequate chemical resistance against such acids as 30% chromic, 98% sulfuric, 85% phosphoric and 80% lactic, as well as resist such caustics as 50% sodium hydroxide and 20% ammonium hydroxide.

Mission Statement

Our mission is to provide our customers the highest possible quality products and services and by so doing, build long term relationships based on mutual trust and respect.

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 numerous 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.

WARRANTY - All products manufactured by us are warranted to be first class material and free from defects in material and workmanship.

Liability under this warranty is limited to the net purchase price of any such products proven defective or, at our option, to the repair or replacement of said products upon their return to us transportation prepaid. All claims hereunder on defective products must be made in writing within 30 days after the receipt of such products in your plant and prior to further processing or combining with other materials and products. WE MAKE NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE SUITABILITY OF ANY OF OUR PRODUCTS FOR ANY PARTICULAR USE, AND WE SHALL NOT BE SUBJECT TO LIABILITY FROM ANY DAMAGES RESULTING FROM THEIR USE IN OPERATIONS NOT UNDER OUR DIRECT CONTROL.

THIS WARRANTY IS EXCLUSIVE OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, AND NO REPRESENTATIVE OF OURS OR ANY OTHER PERSON IS AUTHORIZED TO ASSUME FOR US ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF OUR PRODUCTS.



2925 Lucy Lane • Franklin Park, IL 60131 • 847.451.0279 • 800.624.8919 • FAX 847.451.0379
www.InternationalCoatings.com