

Product Data Sheet

Product Description

ICO-GEL™ is a three part, 100% solids epoxy patching material primarily designed for horizontal, vertical and overhead applications. Its smooth, creamy consistency enables the user to skim coat surfaces that are irregular or pockmarked. **ICO-GEL™** can fill holes up to 1" thick on vertical or overhead surfaces without shrinkage or sagging. For greater thickness, our **ICO Gel XT™** product can be substituted.

ICO Gel has virtually no odor and adheres well to damp as well as dry concrete and masonry surfaces. Unlike cementitious or acrylic-based patch material it can be recoated in as little as six hours after application at room temperature. For faster cure our **ICO Gel MC** and **ICO Gel FC** are available; for applications temperatures below 50°F use **ICO Gel Cold Cure**.

Product Application

ICO-GEL™ is commonly used to fill bug holes, crevices and cracks on vertical walls as well as floors, vertical stair repairs and concrete columns. **ICO-GEL™** also serves as a trowelled-on skim coat underneath our **ICO Glaze** wall coating system where an extra smooth surface is required. It can also be used to repair badly eroded manholes, sumps and sewers. **ICO Gel** is particularly suited for vertical and overhead repairs where constant dampness is present, such as bridges and dams.

Chemical Resistance

ICO-GEL™ is almost always coated with one of **Milamar Coatings'** more chemically resistant coatings. A complete list is available in the **Milamar Coatings Chemical Resistant Chart** or contact **Milamar Technical Assistance**.

Physical Properties

Tensile Strength (ASTM C-307):	1810 psi	Hardness, Shore D (D-2240):	80
Tensile Elongation, unfilled (D-638):	10%	Bond Strength to Quarry Tile: >1000 psi	>1000 psi
Compression Strength (D-695):	6170 psi	Water Absorption:	0.3% in 24 hours

Physical Characteristics

Curing Times @		32°F	40°F	50°F	77°F	90°F
ICO Gel	Pot Life	---	---	45 min.	40 min.	15 min.
	Working Time	---	---	65 min.	50 min.	40 min.
	Hard, (for sanding)	---	---	72 hrs.	18 hrs.	10 hrs.
ICO Gel MC	Pot Life	---	---	45 min.	30 min.	10 min.
	Working Time	---	---	50 min.	40 min.	35 min.
	Hard	---	---	48 hrs.	10 hrs.	7 hrs.
ICO Gel FC	Pot Life	---	---	10 min.	8 min.	5 min.
	Working Time	---	---	40 min.	35 min.	25 min.
	Hard	---	---	20 hrs.	8 hrs.	4 hrs.
ICO Gel Cold Cure	Pot Life	15 min.	15 min.	14 min.	---	---
	Working Time	45 min.	40 min.	30 min.	---	---
	Hard	24 hrs.	20 hrs.	18 hrs.	---	---

Density, lbs. /gal.	
Part A:	9.7
Part B:	8.0
A&B Mixed:	9.3
Viscosity @ 77°F, cps	
Part A:	38000
Part B:	5500
A&B Mixed:	4400

ICO Gel		
Mixing Ratios	By Volume:	By Weight:
Part A : Part B	3.5:1	4.3:1
Aggregate : Liquid	0.6:1	1.5:1
ICO Gel MC		
Mixing Ratios	By Volume:	By Weight:
Part A : Part B	3.5:1	4.3:1
Aggregate : Liquid	0.6:1	1.5:1
ICO Gel FC		
Mixing Ratios	By Volume:	By Weight:
Part A : Part B	4.86:1	5.77:1
Aggregate : Liquid	0.6:1	1.5:1

Shelf Life 1 year at 77°F in unopened containers
Maximum Hardness achieved after 7 days @77°F.

Color Availability

Standard color: Neutral, but can be ordered in white, concrete gray and beige.

Packaging and Coverage Rates

3 Gal. Kit : 40 SF at 1/8" thick
Bulk Pack : 400 SF at 1/8" thick

Installation

Please refer to our Application Specs for detailed instructions. For application as part of our ICO Glaze® ES System, refer to the Application Spec Sheet "ICO Glaze® ES Wall Coating System". Particular care must be taken to follow those instructions precisely to assure proper installation.

1. All surfaces must be cleaned by acid etching, grinding, rough sanding or needle blasting. All loose or flaking coatings and other materials must be removed. All oils, fats, greases or chemically contaminated concrete must be removed.
2. No priming is necessary, as **ICO-GEL™** is a self-priming material.
3. Mix the contents of the Part A and Part B containers in a clean, plastic bucket with a slow speed paddle mixer or electric drill for about one minute. Then add in **ICO-GEL™ Flour** slowly for another minute or so, until the mixture is uniform in color and consistency. Only mix amount of material that can be applied within stated pot life
4. Use a clean margin trowel or spatula to apply the **ICO-GEL™**. The blade should be large enough to span the depression; use a 1-1/2" blade for filling cracks.
5. Press the **ICO-GEL™** firmly into place in a wiping motion. Use enough material to overfill the opening.
6. Under normal conditions, **ICO-GEL™** can be applied up to 1" depths without sagging. For greater thickness, use **ICO Gel XT** (up to 3" per pass).

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 greater than 1" thick at 70°F; for greater thicknesses use Gel XT**
2. **Do not apply ICO Gel FC above 70°F**
3. **Do not apply ICO Gel Cold Cure above 50°F**
4. **Recoat windows without sanding at 70°F: Gel – 18 hours; Gel MC – 10 hours; Gel FC – 6 to 8 hours**

Product Specification

The specified area shall receive an application of **ICO-GEL™** 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,

100% solids, and three part epoxy system with bond strength exceeding 1000 psi on quarry tiles. It should be able to be applied on vertical surfaces up to 1" thick at 70°F in a single step application without sagging. The system must adhere to damp, as well as dry concrete. It shall be a resin-rich mixture, with an aggregate: liquid ratio not to exceed 1.5:1 by weight. The compressive strength when tested in accordance with ASTM C-579 shall not exceed 6200 psi and the tensile strength shall be 1810 psi when tested under ASTM C-307.

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, 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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