



ICO Coat 81

Product Data Sheet

Product Description

ICO Coat 81 is our most economical, trowelled grade of epoxy flooring. It is virtually odorless and can be applied in any thickness down to 3/16". ICO Coat 81 has excellent wear resistance to heavy vehicular traffic. As a somewhat drier mix (aggregate: liquid ratio of 8:1) than our resin rich floors, it requires a primer coat and normally two top coats of ICO Coat liquid coating to effectively seal the surface to prevent liquid migration.

ICO Coat 81 can be applied down to 50°F. It is available in either bulk packs (5 gallon pails) or drum kits in all our standard colors. These four-part systems include our ICO Fill Hand Trowel sand along with our dry tint packets.

Typical Applications

ICO Coat 81 is best suited for heavy wear conditions such as typically found in unloading docks, aisle ways and storage areas seeing constant heavy traffic. It is also an excellent choice for restoring a badly pitted or spalled concrete floor to its original flat profile at depths of ¼" to 1" thick.

For applications where impact, wash downs and/or harsh chemicals are present, our flexibilized epoxy systems, ICO Floor 51 or ICO Guard 51, would be the choice.

Chemical Resistance

The Following Reagents have been tested:

Reagents	Ratings	Reagents	Ratings
Acetic Acid, 10%	NR	MEK	NR
Brake Fluid	S	Nitric Acid, 10%	S*
Distilled Water	R	Phosphoric Acid, 30%	OS
Ethanol	NR	Sodium Hydroxide, 50%	R
Hydrochloric Acid, 37%	OS*	Sulfuric Acid, 20%	S*
Lactic Acid, 10%	NR	Toluene	NR

Ratings are as follows: **NR** – Not Recommended; **OS** – Withstands up to 24 hour immersion; **S** – Withstands up to 72 hour immersion; **R** – Withstands up to 7 day immersion. * - Stained

Physical Properties

Tensile Strength (ASTM C-307):	1700 psi	Flammability (D-635):	Self Extinguishing
Compression Strength (C-579):	12,300 psi	Bond Strength to Concrete:	>400 psi (Concrete Fails)
Hardness (Shore D):	85	Water Absorption:	:0.2% in 24 hours
Gardner Impact Strength:	120 inch/pound		

Physical Characteristics:

Unless otherwise notes, all figures are for regular cure

Density lbs./gal	Clear	Viscosity @ 77F, CPS	Clear
Part A	9.46	Part A	800
Part B	8.4	Part B	50
A&B Mixed	9.1	A&B Mixed	450

Mixing Ratios	By Volume	By Weight
Part A:Part B	2.2:1	2.5:1
Aggregate : Liquid	5:1	8:1

Curing Times @	50°F	77°F	90°F
Pot Life	35 min	30 min	20 min
Working 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	30 hrs.	18 hrs.	10 hrs.

Note: Maximum hardness and chemical resistance achieved after 7 day cure.

Color Availability	Packaging and Coverage Rates	
All standard colors (dry pack)	Bulk Pack: 230 SF @ ¼"	Drum Kit: 2300 SF @ ¼"

Installation

Please refer to our Application Specs for detailed instruction. 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 polyethylene sheet (ASTMD4263) or by the RMA Test using calcium chloride granules). Check with ICO Technical Service when results obtained.
2. All surfaces to be covered should be cleaned of all greases and oils by caustic cleaning, then thoroughly rinsed. The surface should then be mechanically abraded by shotblasting, diamond grinding or scarifying to obtain a texture of at least 40 grit.
3. The floor must be primed with **ICO Primer LV** or **LV FC**.
4. **ICO Coat 81** must be applied while primer is wet or tacky.
5. Use measuring buckets provided. Each "kit" goes with a 50lb bag of **ICO Fill Hand Trowelled** aggregate and scoop of tint.
6. Using a paddle or mortar mixer, first mix Part A and B for at least 30 to 60 seconds, then slowly add aggregate and tint together and mix for another 30 to 60 seconds, until mix is uniform in color. No induction time is needed.
7. Spread by screed box, screed rake or screed bar. Allow for some compaction by setting gauge slightly higher than desired finished thickness. Do not apply less than 3/16".
8. Immediately follow spreading of floor by hand or power trowel. Back roll with fine nap roller moistened with IPA to remove light trowel marks.
9. To seal the floor, allow trowelled material to dry hard enough to walk on and apply grout coat of **ICO Coat XT** at a coverage rate of 160 to 200SF/gallon. If texture desired, broadcast suitable aggregate into grout coat. Allow to dry.
10. Apply top sealer coat of **ICO Coat** or other Milamar product at 160 to 200 SF/gallon. Broadcast in additional aggregate as necessary to achieve uniform finish.

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

Precautions

1. Do not apply below 50°F.

Safety Precautions

Avoid skin contact with liquid Part A and Part B as they may cause skin irritation to some people. Protective hand cream and/or gloves should always be used. No special ventilation is needed as there are no solvents. Clean up can be done with toluene, xylene or MEK. Once material has set it can be removed with a paint stripper. **Always consult the MSDS sheets prior to use.**

Product Specifications

The specified area shall receive an application of **ICO Coat 81** as manufactured by **Milamar Coatings, LLC, Oklahoma City, Oklahoma**. The material shall be installed by precisely following the manufacturer's published recommendations pertaining to surface preparation, mixing and applications. The material shall be a low odor, 100% solids, and four-part epoxy system with bond strength to concrete exceeding the tensile strength of the concrete. Its compression strength should be a minimum of 12,000psi (filled system) and its tensile strength a minimum of 1,700psi, with a Gardner Impact Strength of 120 inch pounds.

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 Coating 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 be only adjusted in writing, signed by an officer of Milamar Coatings, L.L.C.

Milamar Coatings, L.L.C.

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