



ICO UREA GUARD

Product Data Sheet

Product Description

Urea Guard is a zero VOC, low odor, two part polyurea coating with excellent color stability, UV resistance and wear resistance. It can be applied in a single step application from approximately 5 mils minimum to 15 mils DFT on a smooth surface (and up to 20 mils on a seeded surface). It's quick drying characteristics (7 to 8 hours walk-on time @ 70°F) are well suited on time critical projects. It does not exhibit any tire tracking after full cure (24 hours @ 70°F) nor does it retain dirt and dust like some other softer polyurethane materials.

Urea Guard is available in easy-to-use premeasured 4 gallon kits, 20 gallon bulk kits or more economical 100 gallon drum kits – in a clear and all our standard colors. It can be applied in a temperature range between 40° and 90°F – at temperatures at least five degrees above the dew point. It is recommended to use our epoxy primer, **ICO Primer LV**, when going over new concrete or damp surfaces.

Product Application

Urea Guard is our best high gloss, UV resistant top coat for such flooring applications as airplane hangers, warehouses and distribution centers, commercial establishments and industrial facilities desiring low maintenance, easily cleanable floors. As a clear sealer it provides an excellent top coat in our decorative quartz and flake floor systems, providing a seamless, easy-to-clean floor in such applications as laboratories, animal care facilities, hospitals and nursing homes, and other institutional markets. It also provides better stain resistance than epoxies making it a suitable top coat in battery storage areas and other moderate chemical environments in which epoxies will stain.

Chemical Resistance

Urea Guard has good chemical resistance to most oils, gasoline, moderate concentrations of acids and bases. Ratings for most commonly used reagents are listed below (a complete listing can be found in our Chemical Resistance Chart):

Rating		Rating		Rating		Rating	
Acetic Acid, 10%	R1	Disel Fuel	I	Kerosene	I	Piric Acid	I1
Ammonium Hydroxide	S	Ethylene Glycol HF	I	Mineral Oil	I	Skydrol	R2
Ammonium Nitrate	I	Formic Acid 10%	R	Nitric Acid 10-30%	R	Sodium Hydroxide 50%	I
Bleach 6%	I	Formic Acid 30%	S	Nitric Acid 50%	S	Sulfuric Acid 20 %	I
Brake Fluid	R2	Gasoline	I	Oleic Acid	I	Sulfuric Acid 50%	R
Butyl Alcohol	OS	HCl, conc	S	Oxalic Acid	I	Sulfuric Acid 80%	S
Chlorine Water	I	HF, 10%	R	Perchlorethylene	R	Urea	I
Chromic Acid 30%	R1	HF, 30%	S	Phosphoric Acid 50%	R	Urine	I
Copper Chloride	I1	Hydrogen Peroxide, 50%	OS	Phosphoric Acid 80%	OS	Xylene	S

Key: NR - Not Recommended S - Short Term Resistance - 72 hours I - Immersion / 30 days, no attack
 OS - Occasional Spillage / 24 hours R - Recommended - 7 days **Key (Surface Tests):** 1 - Staining 2 - Swelling

Physical Properties

Tensile Strength (ASTM D-638)	: 400 psi	Tensile Elongation (D-638)	:85%
Hardness, Shore A (ASTM D-2240)	: 90	60° Gloss	:80
Vapor Transmission Rate, E-96	:.03perms	Adhesion to concrete (elcometer)	:400psi(Concrete Fails)
Taber Abrasion, D-1044,CS17 wheel 1000 g, 1000 cycles	: 50mg		

Physical Characteristics

<u>Viscosity @ 75°F, cps</u>	<u>Clear Pigmented</u>		<u>Mixing Ratios</u>	<u>By Weight</u>	<u>By Volume</u>	
	Pt. A	75	85	Pt. A : Pt. B, Clear	2.3:1	2.6:1
Pt. B	700	700	Pt A : Pt B (Pigmented)	2.7:1	2.7:1	
A&B Mixed	200	170				
<u>Density, lbs./gal.</u>			<u>Curing Time</u>	<u>40°F</u>	<u>70°F</u>	<u>90°F</u>
Pt. A	8.6	9.4	Pot Life	30min	15min	10min
Pt. B	9.6	9.6	Working Time	30min	20min	15min
A&B Mixed	8.9	9.5	Dry to Touch	12hrs	4hrs	3hrs
			Hard, Foot Traffic	24hrs	8hrs	6hrs
			Hard, Truck Traffic	50hrs	30hrs	18hrs

Color Availability

All standard colors, Clear

Shelf Life

6 months in unopened containers.

Packaging and Coverage Rates

4 Gallon Kit	: 640 SF @ 10 mils DFT
20 Gallon Kit	: 3200 SF @ 10 mils DFT
100 Gallon Kit	: 16,000 SF @ 10mils DFT

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. If applied over concrete, the floor must be cleaned, abraded by mechanical means and then primed with **ICO Primer LV** or **LV FC** at a coverage rate of 250 SF/gallon. Allow to dry tack free.
2. Mix Part A and B for low speeds (< 750 rpm) with a Jiffy style mixer for 30-60 seconds, or until uniform in color. If pigmented, Mix Part A first for about 30 seconds. No induction time needed
3. Immediately after mixing, pour out onto floor in a ribbon fashion, spread with a rubber squeegee to a recommended coverage rate of 160SF/gallon to yield a single 10 mil (DFT) coat, then back-roll with a fine nap adhesive roller. Note: application rates on horizontal surfaces can range from 4/5 mils to 15 mils DFT (and up to 20 mils DFT on seeded surfaces); on vertical surfaces 2 – 3 mils per coat is normal

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

Precautions

1. **Must be applied at least 5 degrees above the dew point**
2. **Do not apply below 40°F**
3. **Do not apply over damp substrate**
4. **Part B's should be kept from exposure to air.**

Product Specification

The specified area shall receive an application of **Urea Guard** as supplied 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 zero VOC, low odor, two part aliphatic polyurea coating with a dry time of 8 hours at 70°F. It shall have a tensile strength of 400 psi and elongation of 85% as measured by ASTM D-638. It shall be resistant to a variety of chemicals for at least 7 days, including 50% sulfuric acid, 50% sodium hydroxide, gasoline and skydrol.

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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