

ULTRA-GUARD 300

A TWO-COMPONENT, HIGH SOLIDS, ALIPHATIC, POLYASPARTIC POLYUREA WHICH EXHIBITS EXCELLENT RETENTION, GLOSS & UV STABILITY

ULTRA-GUARD 300 is a high solids, aliphatic, polyaspartic polyurea which exhibits excellent retention, gloss and UV stability. It can be applied at any thickness in a single pass on horizontal surfaces or multiple passes on vertical surfaces. Ultra-Guard 300 is quick curing and specifically formulated to be installed in thin film application.

USES

- Can be applied over concrete, plywood and steel
- Cold storage
- Chemical plants
- Warehouses
- Kitchens
- Garages
- Laboratories
- Restrooms
- Kennels

ADVANTAGES

- Quick cure
- High tensile strength
- Abrasion resistant
- UV resistant
- Superior gloss retention
- Color stable
- Excellent weatherability
- Available in clear or in a variety of colors
- Topcoat over aromatic polyurea, polyurethane and epoxy coatings
- May be applied in temperatures ranging from 35°F to 130°F
- Service temperature of 0°F to 200°F

PACKAGING

2 gallon kit: 1 gallon (3.78 liters) can of Part-A and 1 gallon (3.78) can of Part-B.

10 gallon kit: One 5 gallon (18.9 liter) pail of Part-A and one 5 gallon (18.9 liter) pail of Part-B.

Mixing Ratio by Volume:

(1) Part-A: (1) Part-B

SURFACE PREPARATION

The concrete substrate must be clean, sound and dry. New concrete should cure for at least 30 days. Ultra-Guard 300 will not fill voids or bridge large cracks. All voids and cracks must be patched using Umaco Universal 1023 then allowed to cure. The minimum pull off strength of the substrate is 200 psi.

Remove all dirt, dust, spalling or loose concrete, oil, grease, wax, mildew, efflorescence, laitance, curing compounds, form release agents, paint or any other foreign material which might effect the bond. **SEE WARNING**

REGARDING PAINT REMOVAL.

Umaco Ultra-Clean may be used to remove oil or grease stains from concrete surfaces. The concrete must have a surface profile of CSP 3-5. Suitable preparation methods include dustless grinding, shot-blasting, scarification and etching using Umaco Ultra-Etch.

Priming

Umaco Ultra-Prime 100 should be applied over porous concrete prior to application in order to avoid outgassing and the development of surface defects.

Concrete Moisture

Perform testing to verify that the vapor pressure is below 3.0 pounds per 1000 square feet per 24 hours. If the vapor pressure exceeds this limit, Umaco Ultra-Prime MVB must be used (in place of Umaco Ultra Prime-100) prior to application. Refer to Umaco Ultra-Prime MVB data sheet for full instructions and limitations.

MIXING

Ultra-Guard 300 may not be diluted under any circumstance. Proportions are premeasured. Ultra-Guard 300 Part-A and Part-B should be mixed individually before combining. Add Part-B to Part-A then mix using a mechanical mixer at medium speed. Mix until a homogeneous mixture and color is attained (at least 5

minutes) and mix frequently during application to maintain uniform color. Do not thin. Do not mix in an up and down motion. Use care to scrape the sides of the container to ensure that no unmixed material remains. Use caution not to whip air into the material as this may result in pinhole blisters and/or shortened pot life. Mix only enough material that can be applied within 20-30 minutes.

Optional Non-Slip Additive

Where additional slip resistance is required, blend 3.5 ounces of Umaco Ultra-Grip per each gallon.

APPLICATION

Ultra-Guard 300 can be applied by phenolic resin core roller or by squeegee and back-rolled. Ultra-Guard 300 should be applied at a minimum film thickness of 5 mils. It should be noted that the heavier the application, the longer the curing process takes. A phenolic resin core roller may be used, but extra care should be taken not to cause air bubbles.

CURING

At 75°F (24°C) and 50% relative humidity, allow each coat to cure 3-4 hours. Cure time will vary depending on temperature and humidity. Allow 6 hours before permitting light pedestrian traffic and at least 24-48 hours before permitting heavy pedestrian traffic on to the finished surface. Uncured Ultra-Guard 300 is very sensitive to heat and moisture. Higher temperatures and/or high humidity will accelerate the cure time. Use caution in batch sizes and thickness of application. If more than 48 hours pass between coats, either lightly sand or re-prime the surface with Ultra-Prime 150 before proceeding. Low temperature and/or low humidity extend the cure time.



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COVERAGE

Approximate coverage is 100 ft² per gallon.

EQUIPMENT CLEANUP

Equipment should be cleaned with an environmentally safe solvent as permitted under local regulations immediately after use.

DISPOSAL

Dispose of empty packaging and other waste in accordance with federal, state, provinces and local regulations

STORAGE

Ultra-Guard 300 has a shelf life of one (1) year from date of manufacture in original factory sealed containers when stored indoors at a temperature between 60-95°F (15-35°C).

LIMITATIONS

- Surfaces must be dry, clean and free of foreign matter
- New concrete must cure 30 days
- Umaco Ultra-Prime MVB must be used prior to application if moisture emission exceeds 3.0 pounds per 1,000 square feet per 24 hours
- Clear coating may turn opaque and cloudy due to moisture penetration especially for exterior applications
- Apply when ambient and surface temperatures are between 50°F-90°F
- Do not dilute under any circumstances
- Keep containers tightly closed
- Containers that have been open must be used as soon as possible
- Surfaces may be slippery when wet
- Apply Ultra-Prime 100 before using this product in order to avoid outgassing and the development of surface defects
- For professional use only

MAINTENANCE

For maximum life expectancy, routinely sweep and wash floors with appropriate cleaners and detergents including Umaco Ultra-Clean. All chemicals or abrasive grit should be removed as soon as possible.

TECHNICAL DATA

ULTRA-GUARD 300, CLEAR

Mix Ratio by Volume: 1A:1B

Coverage Rate: 1 gallon/100 ft²

Dry Film Thickness per Coat

15 mils (381 microns)

Pot Life at 75°F (24°C), 50% RH

30-40 minutes

Hardness, ASTM D-2240

65 ± 2 Shore D

Tear Resistance, ASTM D-624

450 ± 50 pli (78.8 ± 8.8 kN/m)

Tensile Strength, ASTM D-412

3000 ± 200 psi (20.7 ± 1.4 MPa)

Ultimate Elongation, ASTM D-412

70 ± 10%

Specific Gravity:

Part-A = 1.14, Part-B = 1.06

Total Solids by Weight, ASTM D-2369

90 ± 2%

Total Solids by Volume, ASTM D-2697

91 ± 2%

Viscosity at 75°F (24°C)

Part-A = 300 ± 100cps

Part-B = 1000 ± 300cps

VOC's, ASTM D-2369-81

0.0 lb/gal (0.0 gm/liters)

ULTRA-GUARD 300, PIGMENTED

Mix Ratio by Volume: 1A:1B

Coverage Rate: 1 gallon/100 ft²

Dry Film Thickness per Coat

15 mils (381 microns)

Pot Life at 75°F (24°C), 50% RH

30-40 minutes

Hardness, ASTM D-2240

65 ± 2 Shore D

Tear Resistance, ASTM D-624

400 ± 50 pli (70.1 ± 8.8 kN/m)

Tensile Strength, ASTM D-412

3000 ± 200 psi (20.7 ± 1.4 MPa)

Ultimate Elongation, ASTM D-412

50 ± 10%

Specific Gravity

Part-A = 1.14, Part-B = 1.28

Total Solids by Weight, ASTM D-2369

91 ± 2%

Total Solids by Volume, ASTM D-2697

91 ± 2%

Viscosity at 75°F (24°C)

Part-A = 300 ± 200cps,

Part-B = 1400 ± 300cps

VOC's, ASTM D-2369-81

0.0 lb/gal (0.0 gm/liters)

WARNING

This product contains Isocyanates and other chemicals that may cause serious physical injury. Before using, read the Safety Data Sheet and follow all precautions to prevent bodily harm.

WARNING! If you scrape, sand or remove old paint, you may release lead dust or fumes. **LEAD IS TOXIC.**

EXPOSURE TO LEAD DUST OR FUMES CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN.

PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE.

Before you start, find out how to protect yourself and your family by contacting the USEPA National Lead Information Hotline at 1-800-424-LEAD or log onto www.epa.gov/lead. Wear a properly fitted respirator and prevent skin contact to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Follow these instructions to control exposure to other hazardous substances that may be released during surface preparation.

For technical assistance call 978-453-8881.

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LIMITED WARRANTY

The manufacturer guarantees its products to be free of defects and the extent of its liability is limited to the purchase price of the materials only, if proved to be defective. Improper mixing, incorrect application or other factors beyond the control of the manufacturer or its dealers may produce unsatisfactory results and cannot be held to be the manufacturers or its dealers responsibility. There are no other guarantees either expressed or implied. (2021)

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