

# ULTRA-GLAZE 400

A TWO-COMPONENT, LOW ODOR, ABRASION AND CHEMICAL RESISTANT, UV STABLE, WATERBORNE, ALIPHATIC, POLYURETHANE FINISH COAT

**ULTRA-GLAZE 400** is a two-component, low odor, abrasion and chemical resistant, UV stable, waterborne, aliphatic, polyurethane finish coat. Ultra-Glaze 400 is available in Clear Gloss, Satin and Matte. Ultra-Glaze 400 exhibits excellent adhesion to concrete, cementitious mortars and epoxies. An excellent product to use for areas subjected to heavy foot traffic, forklift traffic and chemical attack.

**Ultra-Glaze 400 Satin or Matte must be applied over a coat of Ultra-Glaze 400 Clear Gloss in order to prevent any finish variations**

## USES

- Aircraft hangar & maintenance floors
- Automotive show room & repair floors
- Commercial bakery & kitchen floors
- Decorative cementitious & polymer overlays
- Hospital & health care facility floors
- Laboratory & research floors
- Manufacturing & warehouse floors

## ADVANTAGES

- Available in Clear Gloss, Satin and Matte
- UV stable
- Abrasion resistant
- Chemical resistant
- VOC & EPA compliant
- Meets USDA requirements
- Excellent adhesion to concrete, cementitious mortars & epoxies
- Withstands extreme foot traffic

## PACKAGING

**1-1/2 gallon kit:** one 1 gallon (3.78 liters) can of Part-A and one half gallon (1.89 liters) can of Part-B.

**15 gallon kit:** two 5 gallon (18.9 liter) pail of Part-A and one 5 gallon (18.9 liter) pail of Part-B.

## SURFACE PREPARATION

The concrete substrate must be clean, sound and dry. New concrete should cure for at least 30 days. Ultra-Shield 200 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

Concrete and cementitious overlays must be primed with Umaco Ultra-Prime 100 prior to applying this product.

## Concrete Moisture

Concrete must be dry prior to application. Perform testing to verify that the moisture 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

### **Mixing Ratio by Volume:**

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

For ease of mixing and placement, the temperature of Part-A and Part-B should be between 70°F - 80°F. Pre-mix Part-A and Part-B separately to ensure all raw materials and pigments are dispersed

uniformly. Then add Part-B to Part-A and mix using a low speed drill (400 rpm) with an impeller mixing paddle. Mix until a homogeneous mixture is attained (at least 2 minutes). Use caution not to whip air into the material as this may result in pinhole blisters. Mix only enough material that can be applied within approximately 45 minutes.

## Optional Non-Slip Additive

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

## APPLICATION

Ultra-Glaze 400 can be applied by brush, phenolic core roller (non-shedding) and rubber squeegee and back-rolled.

## CURING

At 75°F and 50% relative humidity, allow each coat to cure approximately 10-16 hours before recoating. If more than 48 hours pass between coats, lightly sand the surface and then reapply Ultra-Glaze 400. Cure times will vary depending on temperature and humidity. Allow 24 hours before permitting light pedestrian traffic and at least 24-48 hours before permitting heavy pedestrian traffic on to the finished surface.

## COVERAGE (APPROXIMATE)

Clear Gloss: 300-350 ft<sup>2</sup> per gallon  
Satin: 400-450 ft<sup>2</sup> per gallon  
Matte: 400-450 ft<sup>2</sup> per gallon

## CLEANUP

Clean up mixing station, tools and equipment as required using acetone which is a VOC exempt solvent. Observe all legal, health and safety precautions when handling or storing solvents and materials particularly in confined spaces.



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www.umaco.com

## **DISPOSAL**

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

## **STORAGE**

Ultra-Glaze 400 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**

- This product is best suited for applications in temperatures between 60°F - 90°F
- Dew point must be 5° or more below the surface temperature
- Do not apply if Relative Humidity is at or exceeds 85%
- Ultra-Glaze 400 Satin or Matte must be applied over a coat of Ultra-Glaze 400 Clear Gloss in order to prevent any finish variations
- Higher temperatures will result in shortened working time and drying time
- Requires a primer when applied directly to concrete and cementitious overlays

## **MAINTENANCE**

Inspect the installed floor by spot cleaning and spot repairing the damaged or cracked areas. All chemicals or abrasive grit should be removed as soon as possible. To prolong life of flooring system, a routine maintenance program using Umaco Ultra-Clean is recommended to ensure the floor is safe for its intended purposes.

## **Physical Properties at 77°F (25°C) 7 Day Cure**

**Mix Ratio by Volume:** 2A:1B  
**VOC (ASTM D3960):** < 100 grams/liter  
**Viscosity (Mixed):** 400 cps  
**Solids (Clear Gloss & Stain):** 51.0%  
**Solids (Matte):** 54.0%  
**Mix Density (Mixed):** 9.2 lb/gal  
**Pot Life (One Gallon):** 45 minutes  
**Application Surface Temp (min):** 50°F  
**Dry to Touch (50°F - 90°F):** 5-10 hours  
**Recoat Time (50°F - 90°F):** 10-16 hours  
**Light Traffic (50°F to 90°F):** 24 hours  
**Full Cure (50°F to 90°F):** 7 to 14 days

## **Mechanical Properties at 77°F (25°C) 7 Day Cure**

**Surface Preparation ICRI  
Guideline No. 310.2R:** Concrete Surface Profile (CSP 2 & above) depending on system and condition of concrete  
**Gloss Index, 60 Degrees, (ASTM D523):**  
Clear Gloss: 90-95  
**Gloss Index, 60 Degrees, (ASTM D523):**  
Clear Satin: 40-70  
**Gloss Index, 60 Degrees, (ASTM D523):**  
Matte: 10-20  
**Gloss Index, 60 Degrees, (ASTM D523):**  
Pigmented: 80-90  
**Adhesion (ASTM D7234)**  
**Concrete Failure:** > 400 psi  
**Tensile Strength (ASTM D882):** 7500 psi  
**Tensile Elongation (ASTM D882):** 10%  
**Pencil Hardness (ASTM D3363):** 2H  
**Abrasion Resistance (ASTM D4060)**  
**1000 Cycles, Wheel No. CS17,**  
**1000 gr. Load:** 0.03 gr.  
**Flexibility, Bend Mandrel Coating Test (ASTM D522):** Pass 1/8 inch  
**Flame Test, Bonded to Concrete (ASTM E648):** Class 1  
**Flammability, Bonded to Concrete (ASTM D635):** Self-Extinguishing  
**Microbial (Fungi) Resistance (ASTM G21):** Pass #1  
**Wet Dynamic Coefficient of Friction:**  
>0.45 (inclines), >0.42 (level)  
**Moisture Vapor Emission Rate (ASTM F1869):** 3 lbs.  
**Moisture Relative Humidity, (ASTM F2170):** 80% RH

## **WARNING**

This product 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](http://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.**

[www.umaco.com](http://www.umaco.com)

## **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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