

ULTRA-CRETE 650

THREE-PART, SELF-LEVELING, URETHANE POLYMER CONCRETE
DESIGNED TO BE APPLIED AT 1/4" USING A PRESET CAM RAKE

ULTRA-CRETE 650 (1/4") is a three-part, self-leveling, urethane polymer concrete. The system can withstand aggressive chemical attack, thermal shock resistance and high impact resistance. It is designed to be used as an underlayment providing a superior functional subfloor for other polymeric toppings or for resilient flooring. This product can also be used as a stand-alone, functional and high performance flooring system.

USES

- Chemical processing
- Food processing
- Restaurants
- Pharmaceutical
- Bakeries
- Cage wash areas
- Bottling areas
- Sanitize areas
- Plant vehicle aisles
- Warehouses
- Mechanical rooms

ADVANTAGES

- Water-based low emission
- Self-priming for superior adhesion
- Superior impact resistance
- Wide temperature service range from -50°F to 200°F
- Minimum application temperature of 35°F and above
- High tolerance to moisture vapor pressure, up to 15 pounds
- Green concrete applicable, 7 day old
- Resistant to growth of bacteria and fungi
- Meets USDA & FDA requirements

PACKAGING

Available in Gray, Tile Red or Tan

PACKAGING

- One Part A (resin): 8 lbs
- One Part B (hardener): 8 lbs
- One Part C (aggregate): 39 lbs

Mixing Ratio:

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

SURFACE PREPARATION

The concrete substrate must be clean, sound and dry. 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. Suitable preparation methods include dustless grinding, shot-blasting, scarification and etching using Umaco Ultra-Etch.

Concrete Moisture

Ultra-Crete 650 (1/8") can withstand moisture vapor pressure up to 15 lbs./1000 ft²/24 hours.

PROPER PLANNING

Proper planning of mixing and application work flow are essential elements to achieve a seamless and aesthetically pleasing floor. Plan ahead by laying out installation into sections. Allow the full width of the area to be completed in 15 minutes or less to ensure no placement lines are visible, as cold joint lines will show in the finished floor. Edge details, sloping and proper pitching are critical for proper flooring system installation. Crack repairs must also be addressed before installation of the Ultra-Crete 650 system

MIXING

- Pour Part A (resin) into a 5G pail. Make sure the entire content of Part A (resin) is completely drained
- Add Part B (hardener) to Part A (resin)
- Mix Part A (resin) and Part B (hardener) together using a high speed drill (800 RPM) with a 5" Jiffy type blade for at least 30 seconds
- Gradually add Part C (aggregate) and mix continuously for at least 2 minutes until a homogenous mix is attained.
- Move the blade around continuously to ensure the mixture is completely mixed and uniform

APPLICATION

Immediately place the blended Ultra-Crete 650 (1/4") onto the properly prepared concrete floor and spread to desired thickness using a cam rake or trowel. Evenly apply keeping cam rake lines to a minimum. Back roll across slurry with spike roller to help settle aggregates and blend cam rake lines. Further roll with loop roller perpendicular to cam rake lines over entire floor to even and settle slurry prior to broadcasting. The application tools must be kept as clean as possible to avoid excessive buildup of old material. Utilize new rakes as necessary to avoid disrupting the application work flow. Avoid dripping solvent into the material during application. Check the floor for proper thickness frequently to ensure your tools are still delivering proper coating thickness.

CURING

Allow the installed coatings to fully cure. A minimum of 8 hours is needed for light foot traffic when applied at 75°F or above. A minimum cure time of 24 hours may be required for temperatures below 75°F. Additional cure time is needed for heavy traffic loads such as fork lifts and heavy machinery.



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COVERAGE

Spread Rate:

22 ft² using 1/8" Cam/Gauge Rake

System Spread Rate with Broadcast:

30 ft² using 1/2" V-Notch

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-Crete 650 (1/4") has a shelf life of one (1) year from date of manufacture in original factory sealed containers when stored indoors at a temperature between 50-90°F (15-35°C).

LIMITATIONS

- Surfaces must be dry, clean and free of foreign matter
- Material should not be applied at temperatures below 50°F
- Do not use broken, damaged or wet bags of Part C (aggregate)
- This product is not UV stable
- Sunlight and metal halide exposure will cause yellowing but will not affect the performance
- Batch to batch color variations may occur
- Do not apply to un-reinforced sand cement screeds, asphalt or bitumen substrates, glazed tile or non porous brick and tile, magnesite, copper, aluminum, polyesters or elastomeric membranes
- Keep containers tightly closed
- Containers that have been open must be used as soon as possible
- 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

Mix Ratio: 1A:1B:1C

Solids by Weight: 100%

VOC: < 5 grams per liter

Hardness, ASTM D-2240: 80D

Compressive Strength, ASTM C-579: 8,800 psi

Shrinkage, ASTM C-531: 0.22%

Tensile Strength, ASTM C-307: 1,450 psi

Flexural Strength, ASTM C-580: 5,000 psi

Adhesion to Concrete, ASTM D-7234: >400 psi, concrete failure

Impact Resistance, ASTM D-2794: >160 in./lb

Water Absorption, ASTM C-413: <0.01%

Flame Spread/NFPA 101, ASTM E-648: Class 1

Abrasion Resistance, CS-17 wheel, 1000 gram, 1000 cycles, ASTM D-4060: 70 mg loss

Coefficient of Friction, ASTM D-2047: 0.60, Meet ADA

Pot Life at 70°F: 15-20 minutes

Working Time at 70°F: 15 minutes

Dry Time at 70°F: 6-8 hours

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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