

ULTRA-FLOW 950

A THREE-COMPONENT, SELF-LEVELING, TROWELABLE EPOXY SYSTEM WHICH PROVIDES A DURABLE & ABRASION RESISTANT SURFACE

ULTRA-FLOW 950 is a three-component, self-leveling, trowelable system which provides an economical way to resurface, spalled and pitted concrete. Ultra-Flow 950 cures to a very tough, durable, dense and abrasion resistant surface.

TYPICAL USES

- Wide void cracks & structure cracks
- Spalled & deteriorated surfaces
- Deep patching
- Releveling concrete surfaces from 1/8" up to any thickness

ADVANTAGES

- Self-leveling epoxy system
- Restores worn, pitted or deteriorated concrete
- Fast cure
- Superior abrasion resistance
- Excellent impact resistance

PACKAGING

(2) 1G pails of Side-A

(1) 1G pail of Side-B

(30) pounds aggregate Side-C

One kit of Ultra-Flow 950 yields approximately 5 gallons of material.

SURFACE PREPARATION

The concrete substrate must be clean, sound and dry. New concrete should cure for at least 30 days. All large voids and large cracks should 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-Flow 950 has a mix ratio of 2G Side-A: 1G Side-B: 28 pounds Side-C (aggregate). Kits are pre-measured and should be mixed as supplied. Premix Side-A (if pigmented) then pour Side-B into Side-A and mix using a paddle attached to a low speed drill (400-600 RPM) for approximately two minutes until one even color develops. After the two liquid sides are combined, add in Side-C (aggregate) and mix well until the material is thoroughly mixed and streak free. The mixed material is ready for immediate use.

APPLICATION

The mixed material can be applied by trowel, serrated squeegee or gauge rake.

COVERAGE

Product coverage is dependent upon the existing substrate surface profile and the thickness of the designed system. Approximate coverage when applied at 1/8" using a gauge rake is 90 ft² per kit.

RECOATING OR TOPCOATING

Before recoating or topcoating, make sure that the Ultra-Flow 950 has tacked off. The surface should be deglossed to insure that a trouble free bond prior to application of recoats or topcoats. Also, check to verify that no epoxy blushes were developed. If blush is present, it must be removed prior to recoating or topcoating by using a standard detergent cleaner such as Umaco Ultra-Clean.

LIMITATIONS

- Do not apply on wet or damp substrate
- 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
- Apply when ambient and surface temperatures are between 55°F-90°F
- Substrate temperature must be 5° F above dew point
- New concrete must cure 28 days
- Restrict the use of floor to light traffic and non-harsh chemicals until the coating has fully cured.

CLEANUP

Clean up mixing station, tools and equipment as required using denatured alcohol. Observe all legal, health and safety precautions when handling or storing solvents and materials particularly in confined spaces.

DISPOSAL

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

STORAGE

Umaco Ultra-Flow 950 has a shelf life of one (1) year from date of manufacture in original, factory-sealed containers when stored indoors at a temperature between 60-90°F (15-32°C).



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TECHNICAL DATA

Solids by Weight:

100% (liquids mixed without aggregate)

Solids by Volume:

100% (liquids mixed without aggregate)

VOC's: Zero pounds per gallon

Color: Clear (Gardner color 1-2)

Coverage per Gallon:

200 ft² per kit at 1/8"

Finish Characteristics:

Gloss (70-95 at 60 degrees)

Abrasion Resistance:

Taber abraser CS-17 calibrase wheel with 1000 gram total load and 500 cycles = 40 mg loss

Flexural Strength (ASTM D790):

11,300 psi

Compressive Strength (ASTM D695):

10,200 psi

Tensile Strength (ASTM D638):

7,465 psi

Hardness: Shore D = 83

Adhesion: 360 psi at elcometer (concrete failure, no delamination)

Viscosity: Mixed = 3000-4000 cps with aggregate (typical)

Ultimate Elongation: 4.2%

Gardner Variable Impactor:

100 inch pounds direct - passed

Application Temperature: 50-90°F

Pot Life: 20-30 minutes

Tack Free (Dry to Touch): 6-8 hours

Recoat or Topcoat: 6-14 hours

Light Foot Traffic: 14-24 hours

Full Cure (Heavy Traffic): 2-7 days

CHEMICAL RESISTANCE

Xylene: 8 hour term splash spill

Methanol: not recommended

Ethyl Alcohol: 8 hour term splash spill

Skydrol: 2 hour term splash spill

50% Sodium Hydroxide:

72 hour immersion

10% Sulfuric Acid:

8 hour term splash spill

70% Sulfuric Acid: not recommended

10% HC1 (aq): 8 hour term splash spill

5% Acetic Acid: 2 hour term splash spill

WARNING

Harmful if inhaled. Harmful if swallowed.

May cause eye irritation. May cause allergic skin reaction. Use safety goggles and chemical resistant gloves. NIOSH/OSHA approved respirator and adequate ventilation is recommended when in confined air space. 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. (2022)

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