PRODUCT DESCRIPTION

Stonclad UT-AF is a dense, liquid-rich, self-priming, textured, five-component, notch-trowel-applied, polyurethane mortar system. Stonclad UT-AF consists of a unique blend of urethane-urea binder, pigments and aluminum oxide aggregate. Stonclad UT-AF is designed to be applied in multiple layers depending on the application, with a maximum recommended thickness of 1 1/8 inch (28 mm) applied in 3 layers. Stonclad UT-AF is a high-impact and abrasion resistant mortar which exhibits excellent, thermal shock, thermal cycling, and chemical-resistant characteristics, making it ideal for use in tipping floors and for direct contact with green waste found in the waste recycling industry, as well as any other applications requiring these properties. Stonclad UT-AF may be applied over green concrete providing it is sufficiently hardened to receive mechanical preparation, typically after 5 days.

SYSTEM OPTIONS

Texture

To ensure maximum impact, abrasion and slip resistance, Stonclad UT-AF utilizes high durability MOHS hardness 9 Aluminum Oxide Texture.

Waterproofing

Where the total system must be waterproofed, the use of Stonhard's Stonproof ME7 membrane system with Texture #3 broadcast to refusal is required with a strict adherence to application instructions.

Crack Treatment

When crack treatment is needed due to cracks in the substrate, the use of Stonhard's Stonproof CT5 or RH7 with Texture #3 broadcast to refusal is required with a strict adherence to application instructions.

PACKAGING

Stonclad UT-AF is packaged in units for easy handling. Each unit consists of:

Mortar

12 cartons, each containing:
- 4 foil bags of Isocyanate
- 4 poly bags of Polyol
- 48 individual bags of Part C-1 aggregate

Pigment

4 cartons containing:
- 12 bags of Part C-2 pigment packs powder

Broadcast

40lb bags Aluminum Oxide
- 3.5 bags

UT-AF Epoxy Topcoat

1 carton containing:
- 4 foil bags of Hardener
- 4 poly bags of Resin

PHYSICAL CHARACTERISTICS

Compressive Strength (ASTM C-579)	7,700 psi after 7 days
Tensile Strength (ASTM C-307)	1,000 psi
Flexural Strength (ASTM C-580)	2,400 psi
Flexural Modulus of Elasticity (ASTM C-580)	2.6 x 10^6 psi
Hardness (ASTM D-2240, Shore D)	80 to 84
Impact Resistance (ASTM D-2794)	>160 in./lbs.
Abrasion Resistance. (ASTM D-4060, CS-17 10,000 cycles)	0.49 gm *
Flammability (ASTM E-648)	Class 1
Thermal Coefficient of Linear Expansion (ASTM C-531)	1.1 x 10^{-5} in./in.˚F
Water Absorption. (ASTM C-413)	< 1%
VOC Content. (ASTM D-2369, Method E).	UT-AF Mortar - 7 g/l UT-AF Topcoat - 30 g/l
Cure Rate (@ 77˚F/25˚C)	6 hours for foot traffic 24 hours for normal operations
Immersion Testing (Green Waste Liquor). (ASTM-D6943, Method A)	No significant change 405 days*

* Test samples finished with one coat of high solids epoxy topcoat

Note: The above physical properties were measured in accordance with the referenced standards. Samples of the actual floor system, including binder and filler, were used as test specimens. All sample preparation and testing is conducted in a laboratory environment. Values obtained on field-applied materials may vary and certain test methods can only be conducted on lab-made test coupons.

COVERAGE

Each unit of Stonclad UT-AF will cover approximately 220 sq. ft/ 20 sq. m at a nominal thickness of 3/8 in./9.5 mm per lift.

STORAGE CONDITIONS

Store all components of Stonclad UT-AF between 60 to 85ºF/16 to 30ºC in a dry area. Avoid excessive heat and do not freeze. The shelf life of the liquids is one year while the C-1 has a 6-month shelf life in the original, unopened container.

COLOR

Stonclad UT-AF is only available in the Charcoal/Desert Tan/Brick Red configuration. Contact your local Stonhard representative or Technical Service with any questions.

SUBSTRATE
Stonclad UT-AF, with the appropriate primer, is suitable for application over concrete, wood, brick, quarry tile, metal or Stonset TG6 compatible bulk filling grout. For questions regarding other possible substrates, contact your local Stonhard representative or Technical Service.

Note: Stonclad UT-AF is suitable for application over new/green concrete. The concrete must be in place for a minimum of 5 days, be dry and have sufficient strength to handle mechanical preparation.

SUBSTRATE PREPARATION
Proper preparation is critical to ensure an adequate bond and system performance. The substrate must be dry and properly prepared utilizing mechanical methods. Questions regarding substrate preparation should be directed to your local Stonhard representative or Technical Service.

PRIMING
Stonclad UT-AF is a self-priming mortar. No additional primer is necessary.

MIXING
- Proper mixing is critical for the product to exhibit the proper application properties, cure properties and ultimate physical properties.
- Mechanical mixing using a JB Blender (or equivalent 5 gal. pail mixer) or a larger mortar mixer (e.g., a Baugh 3 Batch Mixer) is required.
- See Stonclad UT-AF Directions for further details.

APPLYING
- Material must be used immediately after mixing.
- A Screed Applicator is used to distribute the mixed Stonclad UT-AF onto the floor.
- Notched finishing trowels and spiked rollers are used to smooth the surface of the material to the required thickness.
- Fused Alumina aggregate is then broadcast into the wet mortar and troweled into the surface.
- After mortar cures, remove any excess broadcast aggregate, apply additional layers in the same way to achieve desired total system thickness. Typically, Stonclad UT-AF is applied in three 3/8” lifts of contrasting colors.
- Allow final layer of mortar to cure 6 to 8 hours, then apply the Stonclad UT-AF Chemically Resistant Epoxy Topcoat.
- Joints in the substrate should be honored and sealed with a high durability fast cure polyurea joint sealing compound.
- Detailed instructions on application and installation can be found in the Stonclad UT-AF Directions.

PRECAUTIONS
- Use these materials only in strict accordance with the manufacturer’s recommended safety procedures. Dispose of waste materials in accordance with government regulations.
- Avoid contact with liquids as they may cause skin and/ or eye irritation.
- The selection of proper protective clothing and equipment will significantly reduce the risk of injury. Body-covering apparel, y safety glasses and impermeable gloves are required.
- In the case of eye contact, flush area with clean water for 15 minutes and seek medical attention..
- If material is ingested, immediately contact a physician. DO NOT INDUCE VOMITING.
- Wash hands thoroughly with soap and water after use and before eating, smoking etc.
- Use only with adequate ventilation.

NOTES
- For lighter duty applications, Stonclad UT-AF may be applied in thinner layers, our minimum recommendation is two 3/8” layers in contrasting colors to provide wear indication.
- Procedures for maintenance of the flooring system during operations are described in the Stonkleen Floor Cleaning Procedures Brochure.
- Specific information regarding chemical resistance is available in the Stonclad Chemical Resistance Guide. Please ensure that you consult the Product Data Sheet for the Stonclad UT-AF Epoxy Sealer Coating for specific details regarding chemical resistance of the coating utilized.
- Stonclad UT-AF Part C-1 contains Portland Cement and silica fines. A NIOSH-approved dust/mist respirator is required during mixing. Use only with adequate ventilation.
- Safety Data Sheets for Stonclad UT-AF are available online at www.stonhard.com under Products or upon request.
- A staff of technical service engineers is available to assist with installation or to answer questions related to Stonhard products.
- Requests for literature can be made through local sales representatives and offices, or corporate offices located worldwide.
- The appearance of all floor, wall and lining systems will change over time due to normal wear, abrasion, traffic and cleaning. Generally, high-gloss coatings are subject to a reduction in gloss, while matte-finish coatings can increase in gloss level under normal operating conditions.
- Surface texture of resinous flooring surfaces can change over time as a result of wear and surface contaminants. Surfaces should be cleaned regularly and deep cleaned periodically to ensure no contaminant buildup occurs. Surfaces should be periodically inspected to ensure they are performing as expected and may require traction-enhancing maintenance to ensure they continue to meet expectations for the particular area and conditions of use.

IMPORTANT:
Stonhard believes the information contained here to be true and accurate as of the date of publication. Stonhard makes no warranty, expressed or implied, based on this literature and assumes no responsibility for consequential or incidental damages in the use of the systems described, including any warranty of merchantability or fitness. Information contained here is for evaluation only. We further reserve the right to modify and change products or literature at any time and without prior notice.

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