

PRODUCT DESCRIPTION

Stonclad UT is a dense, liquid-rich, self-priming, textured, four-component, notch trowel applied, polyurethane mortar system. Stonclad UT consists of a urethane-urea binder, pigments and graded quartz aggregates. Stonclad UT is a nominal 1/4 in./6 mm system. Stonclad UT cures to an extremely hard, high impact resistant mortar which exhibits excellent abrasion, wear, temperature and chemical resistance characteristics.

USES, APPLICATIONS

Stonclad UT is formulated specifically for the food and beverage industry, using a multi-functional urethane-urea resin. This system is specifically designed for surfacing and patching industrial floors exposed to conditions of impact and abrasion at temperatures up to 250°F/121°C. Stonclad UT provides excellent protection against attack from chemicals such as strong oxidizing agents, organic acids and aromatic solvents while maintaining outstanding resistance to thermal shock and thermal cycling.

SUBSTRATE

Stonclad UT is suitable for application over concrete. Contact Stonhard Technical Service for recommendations on substrates other than concrete.

SYSTEM OPTIONS

Cove Base

To provide for an integral seal at the joint between the floor and the wall, cove bases in heights from 2 to 6 in./5 to 15 cm may be specified.

Textures

To find the necessary balance between cleanability and slip resistance, Stonclad UT is offered in three incremental levels of texture. The texture is specified as light, medium or heavy. For cosmetic purposes, light and medium textures are coated with a urethane based sealer.

PACKAGING

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

Mortar

2 cartons, each containing:

- 4 foil bags of isocyanate (curing agent)
- 4 poly bags of polyol (resin)

8 individual bags of Part C-1 (aggregate)

PHYSICAL CHARACTERISTICS

Compressive Strength	7,700 psi
(ASTM C-579)	after 7 days
Tensile Strength	1,000 psi
(ASTM C-307)	
Flexural Strength	2,400 psi
(ASTM C-580)	
Flexural Modulus of Elasticity	2.6×10^6 psi
(ASTM C-580)	
Hardness	80 to 84
(ASTM D-2240, Shore D)	
Bond Strength	>400 psi
(ASTM D-7234)	(100% concrete failure)
Impact Resistance	>160 in./lbs.
(ASTM D-2794)	
Abrasion Resistance	0.05 gm max. weight loss
(ASTM D-4060, CS-17)	
Slip Resistance Index	>1.0
(ASTM F-1679)	(for all textures)
Flammability	Class 1
(ASTM E-648)	(wet and dry)
Thermal Coefficient of Linear Expansion	1.1×10^{-5} in./in.°C
(ASTM C-531)	
Water Absorption	< 1%
(ASTM C-413)	
Heat Resistance Limitation	200°F/93°C
	(continuous exposure)
	250°F/121°C
	(intermittent spills)
Cure Rate	6 hours for foot traffic
(@ 77°F/25°C)	24 hours for normal operations

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.

Pigment

1.3 cartons containing:

- 6 bags of Part C-2 pigment packs (powder)

Broadcast

- 2 individual bags of broadcast aggregate for light textured systems
- 2 individual bags of broadcast aggregate for medium textured systems

6 individual bags of coloured quartz broadcast aggregate for heavy textured systems

Stonclad UT Sealer

- 1 carton containing:
 - 2 foil bags of isocyanate (curing agent)
 - 2 metal gallon cans of polyol (resin)

COVERAGE

Each unit of Stonclad UT will cover approximately 200 sq. ft./18.58 sq. m at a nominal thickness of 1/4 in./6 mm.

STORAGE CONDITIONS

Store all components of Stonclad UT between 60 to 85°F/16 to 30°C in a dry area. Avoid excessive heat and do not freeze. The shelf life is one year in the original, unopened container.

SUBSTRATE PREPARATION

Proper preparation is critical to ensure an adequate bond. The substrate must be dry and free of all wax, grease, oils, fats, soil, loose or foreign materials and laitance. Laitance and unbonded cement particles must be removed by mechanical methods, i.e., abrasive blasting or scarifying. Other contaminants can be removed by scrubbing with a heavy-duty industrial detergent (Stonkleen DG9) and rinsing with clean water. The surface must show open pores throughout and have a sandpaper texture. When applying Stonclad UT over Stonset TG6, the Stonset TG6 must be ground to achieve a surface profile. This profile will offer more surface area at the grout/mortar interface creating a stronger bond. For recommendations or additional information regarding substrate preparation, contact Stonhard's Technical Service Department.

MIXING

1. Empty the entire contents of polyol (liquid) into a 5 gallon mixing pail.
2. Place the mixing pail on a JB Power Blender and empty the entire contents of isocyanate (liquid) and Part C-2 (pigmented powder) into the mixing pail.
3. Activate the timer to start the 90 second blending cycle.
4. When the blender stops, reactivate the timer and immediately pour the entire contents of one bag of Part C-1 (aggregate) into the pail. Allow the contents to mix for the complete 90 second cycle.
5. When the blender stops, scrape the excess material from the mixing blade, remove the pail and deliver it to the floor area for application.

Note: Undermixing will lead to blisters in the mortar and may make the material difficult to work with.

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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POT LIFE

After mixing, Stonclad UT has a working time of approximately 15 minutes at 70°F/21°C. The working time may vary depending upon ambient and surface conditions.

APPLYING

- Material must be used immediately after mixing.
- A Screed Applicator is used to distribute the mixed Stonclad UT onto the floor.
- Notched finishing trowels and spiked rollers are used to smooth the surface of the material to the required thickness.
- Texture aggregate is then broadcast into the wet mortar.
- When applying a light or medium texture system, allow the mortar to cure 6 to 8 hours, then apply the sealer coat.
- After mortar cures remove excess broadcast aggregate.
- Detailed instructions on application and installation can be found in the Stonclad UT Directions.

RECOMMENDATIONS

- DO NOT attempt to install material if the temperature of Stonclad UT components is not within 60 to 85°F/16 to 30°C. Stonclad UT can be installed at temperatures as low as 40°F/5°C, however the cure time and application properties of the material are severely affected at temperatures below 60°F/16°C.
- DO NOT use water or steam in the vicinity of the application. **Moisture can seriously affect the working time and other properties.**
- Avoid contact with all liquid Parts A and B as they may cause skin and/or eye irritation. Applicators should cover hands with impervious gloves and wear appropriate eye protection.

NOTES

- Procedures for maintenance of the flooring system during operations are described in the Stonclad Cleaning Procedures.
- Specific information regarding chemical resistance is available in the Stonclad Chemical Resistance Guide.
- Material Safety Data Sheets for Stonclad UT are available upon request.
- A staff of technical service engineers is available to assist with installation, or to answer questions related to Stonhard's flooring products.
- Requests for technical service or literature can be made through local sales representatives and offices, or corporate offices located worldwide.



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