STONHARD

STONCLAD® UT

PRODUCT DATA

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 6 mm system. Stonclad UT is a high impact resistant mortar which exhibits excellent abrasion, thermal shock, thermal cycling and chemical resistant characteristics making it ideal for the food and beverage industry as well as any other applications requiring these properties.

SYSTEM OPTIONS

Cove Base

To provide for an integral seal at the joint between the floor and the wall, cove bases in heights from 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 aesthetic and cleanability 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 Isocyante
- 4 poly bags of Polyol

8 individual bags of part C-1 aggregate

Pigment

1.3 cartons containing:

- 6 bags of part C-2 pigment powder packs

Broadcast

2 individual bags of broadcast aggregate for light textured systems

2 individual bags of broadcast aggregate for medium textured systems

3 individual bags of colored quartz broadcast aggregate for heavy textured systems

Stonseal UT7

1 carton containing:

- 2 foil bags of Isocyanate

1 carton containing:

- (2) 1 gallon cans of Polyol

COVERAGE

Each unit of Stonclad UT will cover approximately 17.6 m^2 of surface at a nominal 6 mm thickness.

PHYSICAL CHARACTERISTICS

Compressive Strength (ASTM C-579)	50 N/mm^2 after 7 days
Tensile Strength (ASTM C-307)	7 N/mm^2
Flexural Strength (ASTM C-580	17 N/mm^2
Flexural Modules of Elasticity (ASTM C-580)	1.7×10^4 N/mm^2
Hardness (ASTM D-2240, Shore D)	80 to 84
Impact Resistance (ASTM D-2794)	> 18 Nm
Abrasion Resistance (ASTM D-4060, CS17)	0.05 gm*
Flammability (ASTM E-648)	Class 1
Thermal Coefficient of Linear Expansion (ASTM C-531)	$1,1 \times 10^{-2}$ mm/m°C
Water Absorption (ASTM C-413)	< 1%
VOC content (ASTM D-2369, method E)	UT mortar – 7 g/L Stonseal UT7 – 30g/L
Cure Rate (@ 75°F/25°C)	6 hours for foot traffic 24 hours for normal operations

* Test samples finished with one coat of high solids urethane coating

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.

USGBC LEED RATING

Stonclad UT meets the requirements of LEED;

- MR Credit 1 – Building Reuse
- MR Credit 2 – Construction Waste Management
- MR Credit 6 – Rapidly Renewable Materials
- IEQ Credit 4 – Low Emitting Materials
- VOC content of the total system <100 g/l

COLOR
Stonclad UT is available in 12 standard colors. Refer to the Stonclad color sheet. Color variations will exist if the Stonclad UT surface is not coated with a pigmented coating. Please contact your local Stonhard representative or Technical Service with any questions.

STORAGE CONDITIONS
Store all components of Stonclad UT between 16 to 30˚C in a dry area. Avoid excessive heat and do not freeze. The shelf life is 3 years in the original, unopened container.

SUBSTRATE
Stonclad UT, with the appropriate primer, is suitable for application over concrete, wood, brick, quarry tile, metal or Stonhard Stonset grouts. For questions regarding other possible substrates or an appropriate primer, contact your local Stonhard's representative or Technical Service.

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's representative or Technical Service.

PRIMING
Stonclad UT 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 20 Liter pail mixer) or a larger mortar mixer (e.g., a Baugh 3 Batch Mixer) is required.
- See Stonclad UT Directions for further details.

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.
- After mortar cures remove excess broadcast aggregate.
- When applying a light or medium texture system, allow the mortar to cure 6 to 8 hours, then apply the sealer coat.
- Detailed instructions on application and installation can be found in the Stonclad UT Directions.

NOTES
- Procedures for cleaning of the flooring system during operations can be found in the Stonhard Floor Maintenance Guide.
- Specific information regarding chemical resistance is available in the Stonclad Chemical Resistance Guide. If a coating is utilized to seal the Stonclad UT surface, please ensure that you consult the Product Data sheet for the coating for details regarding chemical resistance of the coating utilized.
- Material Safety Data Sheets for Stonclad UT 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.

CE MARKING
The harmonized European Standard EN 13813 „Screed material and floor screeds- Screed materials - Properties and requirements" specifies the requirements for screed materials for use in floor construction internally. Resinous flooring systems as well as resinous screeds fall under this specification they have to be CE-labeled as **per Annex ZA., Table ZA.1.5 and 3.2** and fulfill the requirements of the given mandate of the Construction Products Regulation no. 305/2011

CE

StonCor Europe
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1400 Nivelles, Belgium

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EC-DOP-2013.01.007

EN 13813 SR-AR1.0-B2.0-IR18

Synthetic resin flooring system for use internally in buildings (system as per Product Data Sheet)

Reaction to fire:	B_{fl}-S1
Release of corrosive substances:	SR
Wear resistance:	AR1.0
Adhesion strength by pull-off:	> B2.0
Impact resistance:	IR18
Chemical resistance:	CRG*

*CRG: see Stonhard Chemical Resistance Guide

CE MARKING

The harmonized European Standard EN 1504-2 „Products and systems for the protection and repair of concrete structures – Definitions, requirements, quality control and evaluation of conformity – Part 2 : Surface protection systems for concrete" gives specifications for products and systems based on methods "hydrophobic impregnation", "impregnation" and "coating" for the various principles presented under EN 1504-9.

Products which fall under this specification have to be CE-labelled as per Annex ZA. 1, Tables ZA1a to ZA 1g according to the scope and relevant clauses there indicated, and fulfill the requirements of the given mandate of the Construction Products Regulation nr. 305/2011.

For flooring systems not dedicated to protect or reinstate the integrity of a concrete structure, EN 13813 applies. Products acc. EN 1504-2 used as flooring systems with mechanical loads also must fulfil EN 13813. Here below indicated are the performance classes achieve according to the standard. For the specific performance results of the product to the particular tests, please see the actual values above in the PDS.

CE

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1400 Nivelles, Belgium

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EC-DOP-2013.01-007

EN 1504-2
Surface protection product

Physical Resistance/Surface Improvement Coating

Reaction to fire	Bfl-S1
Capillary absorption and permeability to water:	W_{24}<0.1 kg/m² x $h^{0.5}$
Impact resistance:	Class II
Adhesion by pull off strength:	>2.0 N/mm²
Abrasion resistance:	> 3000 mg*

* Tested in combination with one coat of protective coating