

PRODUCT DESCRIPTION

Stonshield URT is a nominal 2 to 3.2 mm quartz aggregate broadcast flooring system that combines a decorative appearance with excellent chemical, stain, wear resistance and light stability. This 100% solids, aliphatic urethane system creates a dense, stain resistant surface that can be installed with quick turnaround times and low odor. It is comprised of:

Quick Primer

A two-component, penetrating, moisture tolerant, urethane primer

Stonshield URT Undercoat

A two-component, free flowing, solvent free, aliphatic urethane formulation consisting of a polyaspartic resin and a aliphatic isocyanate.

Stonshield Aggregate

Brightly colored, quartz broadcast aggregate

Stonshield URT Sealer

A two-component, high performance, UV resistant, clear, solvent free, aliphatic, polyaspartic sealer.

USES, APPLICATIONS

Stonshield URT is a seamless, decorative, color stable flooring system engineered with a textured surface for slip resistance in commercial and industrial applications. It is ideally suited for use in research facilities, correctional institutions, hospitals and healthcare facilities, educational facilities and a wide variety of light manufacturing areas.

SYSTEM OPTIONS

Cove Base

To provide for an integral seal at the floor-wall interface, cove bases in heights from 5 to 15 cm are available.

Standard or Medium Texture

Standard texture is achieved with one coat of Stonshield URT sealer. An additional coat of Stonshield URT sealer can be applied to produce a medium texture.

PACKAGING

Stonshield URT is packaged in units for easy handling. Each unit consists of:

Stonshield Undercoat

- 1 carton, each containing:
 - (2) foil bags of aliphatic isocyanate
 - (2) 1 gallon of polyaspartic resin

Stonshield Aggregate

- 3 individual bags of colored quartz aggregate

Stonseal CA7

- 1 carton containing:
 - (2) foil bags of aliphatic isocyanate
 - (2) 1 gallon of polyaspartic resin

PHYSICAL CHARACTERISTICS

Tensile Strength (ASTM C-638)	Undercoat/34 N/mm ² Sealer/41 N/mm ²
Hardness (ASTM D-2240, Shore D)	60
Impact Resistance (ASTM D-2794)	> 18 Nm
Abrasion Resistance (ASTM D-4060, CS-17)	0.10 gm *
Thermal Coefficient of Linear Expansion	1.8 x 10 ⁻⁴ mm/m °C
Cure Rate (@77°F /25°C)	3 - 4 hours for Foot traffic 12 hours for normal operations
Fire Resistance (ASTM E-648)	Class I
VOC Content (ASTM D-2369)	Quik Primer – 89 g/l Stonshield URT Undercoat – 22 g/l Stonseal CA7 – 100 g/l

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 Stonshield URT will cover approximately 18.6 m² of surface at a 2 mm nominal thickness.

STORAGE CONDITIONS

Store all components of Stonshield URT between 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.

COLOR

Stonshield URT is available in 2 solid colors and 10 tweed pattern standard colors. Refer to the Stonshield color sheet. Custom colors are available upon request.

SUBSTRATE

Stonshield URT, in conjunction with its appropriate primer, is suitable for application over properly prepared concrete. Not recommended for use over asphalt, mastic, gypsum-based products, brick or painted surfaces. These must first be removed by mechanical means to expose the substrate prior to priming and overlayment.

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

The use of Quick Primer is necessary for most applications of Stonshield URT. The quick primer needs to be tack-free prior to the application of the undercoat.

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 Stonshield URT Directions for further details.

APPLYING

- DO NOT attempt to install material if the temperature of Stonshield URT components and substrate are not within 16 to 30°C. The cure time and application properties of the material are severely affected at temperatures outside of this range.
- Do not use water or steam in the vicinity of the application. Moisture can seriously affect the working time and other properties. Material must be applied immediately after mixing.
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- Detailed application instructions can be found in the Stonshield URT Directions.
- Avoid contact with all liquids Part A and B as they may cause skin and/or eye irritation. Workmen should cover hands with impermeable gloves and the use of safety glasses are required during application.

HIGH HUMIDITY APPLICATIONS

It is common to have installation difficulties when applying URT Undercoat and Sealer under high humidity conditions. The working time of the URT Undercoat and Sealer are inversely related to the relative humidity level. Under these conditions, the working time of the material is greatly reduced as the excessive moisture present in the atmosphere accelerates the cure. To slow down the cure rate, limit the amount of moisture coming in contact with the material. It is common practice, once materials are mixed, to pour the entire bucket onto the floor. Though this is advantageous when working with epoxies, it is potentially detrimental when working with these unique urethanes. Increase the open time by pouring only a portion of the material onto the floor while leaving the rest in the bucket until it is ready to be applied. This limits the amount of material being exposed to the moisture in the air at one time. The cure rate of these urethane materials is not accelerated when sitting in the bucket, unlike epoxy materials. Also, NEVER mix multiple mixes at once; only mix one mix at a time!

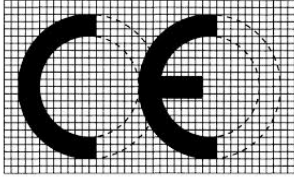
Low humidity will affect this product in the opposite way. When the humidity is low it is not unusual for the undercoat to take more than 4 hours to cure. It may even stay slightly soft for up to 12 hours. This will not affect the overall performance of the finished system. As the material cures the physical properties will develop to their full potential.

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 Stonshield Chemical Resistance Guide.
- Material Safety Data Sheets for Stonshield URT are available on line 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 3.3** and fulfill the requirements of the given mandate of the Construction Products Regulation no. 305/2011

	
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EC-DOP-2013.05.003	
EN 13813 SR-AR1.0-B2.0-IR18	
Synthetic resin flooring system for use internally in buildings (system as per Product Data Sheet)	
Release of corrosive substances:	SR
Wear resistance:	AR1.0
Adhesion strength by pull-off test:	> B2.0
Impact resistance:	IR18
Chemical resistance:	CRG*
* CRG: see Stonhard Chemical Resistance Guide	

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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