

PRODUCT DESCRIPTION

Stonshield URT is a nominal 2 to 3 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 turn-around times and low odour. It is comprised of:

Stonhard Primer

Appropriate primer for sealing and bonding to the substrate

Stonshield URT Undercoat

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

Stonshield Aggregate

Brightly coloured, quartz broadcast aggregate

Stonseal CA7

A two-component, UV resistant, aliphatic polyaspartic urethane Sealer

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.

PACKAGING

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

Stonshield URT Undercoat

2 cartons each containing:
 (1) foil bags of Isocyanate
 (1) c.a. 4 litre cans of Amine

Stonshield Aggregate

3 individual bags of coloured quartz aggregate

Stonseal CA7

1 carton containing:
 (2) foil bags of Isocyanate
 (2) c.a. 4 litre cans of Amine

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.

COLOUR

Stonshield URT is available in 2 solid and 10 tweed colours. Refer to the Stonshield Colour Sheet. Custom colours are available upon request.

SUBSTRATE

Stonshield URT, in conjunction with its appropriate primer, is suitable for application over properly prepared concrete.

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

The use of Quik Primer is necessary for most applications of Stonshield URT. The Quik Primer must be broadcasted with aggregate and allowed to cure tack-free prior to the application of the undercoat.

Note: A half face respirator is required when using Quik Primer.

PHYSICAL CHARACTERISTICS

Tensile Strength.....	Undercoat/34 N/mm ²
(ASTM C-638)	Sealer/41 N/mm ²
Hardness	60
(ASTM D-2240, Shore D)	
Impact Resistance	> 18 Nm
(ASTM D-2794)	
Abrasion Resistance	0.10 gm *max. weight loss
(ASTM D-4060, CS-17)	
Thermal Coefficient of	
Linear Expansion.....	2.1 x 10 ⁻⁵ mm/m°C
Cure Rate	3 - 4 hours for Foot traffic
(@ 25°C)	12 hours for normal operations
Fire Resistance	Class 1
(ASTM E-648)	
VOC Content	Quik Primer – 89 g/l
(ASTM D-2369)	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.

APPLYING

- DO NOT attempt to install material if the temperature of Stonshield URT components and substrate are not within 5 to 30°C. The cure time and application properties of the material are severely affected. Application of the Stonshield URT system is accomplished as follows:
- Quik Primer is mixed and applied to the floor with a squeegee and nap roller. Stonshield Aggregate is broadcast into the wet primer. Allow 3 to 4 hours to cure and sweep off excess aggregate.
- Stonshield URT Undercoat is mixed and applied with a squeegee, then rolled with a medium nap roller. Stonshield Aggregate is broadcast into the freshly rolled Undercoat. Allow to cure until the floor is tack-free (3 to 4 hours at 22°C).
- Scrape and sweep the floor to remove all loose aggregate particles, then vacuum.
- Stonseal CA7 is mixed and applied.
- Refer to the Stonshield URT Directions for further detail.

HIGH HUMIDITY APPLICATIONS

- It is common to have installation difficulties when applying URT Undercoat and Stonseal CA7 under high humidity conditions. The working time of the URT Undercoat and Stonseal CA7 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 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 Stonshield Chemical Resistance Guide. If a coating is utilized to seal the Stonshield URT surface, please ensure that you consult the Product Data sheet for the coating for details regarding chemical resistance of the coating utilized.
- Safety Data Sheets for Stonshield URT are available 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.

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-labelled as **per Annex ZA., Table ZA.1.5 and 3.3** and fulfil the requirements of the given mandate of the Construction Products Regulation no. 305/2011


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EN 13813 SR-AR1.0-B2.0-IR18
Synthetic resin flooring system for use 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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