

PRODUCT DESCRIPTION

Stonshield URT is a nominal 1/16 to 1/8 in./1.6 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 turn-around times and low odour. It is comprised of:

Stonshield URT 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 an aliphatic isocyanate

Stonshield Aggregate

Brightly coloured, quartz broadcast aggregate

Stonshield URT Sealer

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

USES, APPLICATIONS

Stonshield URT is a seamless, decorative, colour 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.

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.

OPTIONS

Cove Base

To provide for an integral seal at the floor-wall interface, cove bases in heights from 2 to 6 in./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:

PHYSICAL CHARACTERISTICS

Tensile Strength	undercoat / 4,800 psi (ASTM D-638)	sealer / 6,000 psi
Hardness	60 (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	0.10 gm max. weight loss (ASTM D-4060, CS-17)	
Cure Rate	3 to 4 hours for foot traffic (@ 77°F/25°C) 12 hours for normal operations	
Coefficient of Friction (Dry)	>1.0 (ASTM F-1679)	
Slip Resistance Index (Wet)	>1.0 (ASTM F-1679)	
Fire Testing	Class I (ASTM E-648)	

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.

Stonshield URT Primer

1 carton containing:

- (1) 1 gallon can of isocyanate
- (1) 1 gallon can of polyol resin

Stonshield URT Undercoat

1 carton containing:

- (2) foil bags of aliphatic isocyanate
- (2) 1 gallon cans of polyaspartic resin

Stonshield Aggregate

6 individual bags of coloured quartz aggregate

Stonshield URT Sealer

1 carton containing:

- (2) foil bags of aliphatic isocyanate
- (2) 1 gallon cans of polyaspartic resin

COVERAGE

Each unit of Stonshield URT will cover approximately 200 sq. ft./18.6 sq. m of surface at a 2 mm nominal thickness.

STORAGE CONDITIONS

Store all components of Stonshield URT 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.

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 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 may 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. For recommendations or additional information regarding substrate preparation, contact Stonhard's Technical Service Department.

PRIMING

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

APPLYING

Application of the Stonshield URT system is accomplished as follows:

1. URT Primer is mixed and applied to the floor with a squeegee and nap roller. Stonshield Aggregate is broadcast into the wet primer using a special Stonhard Spraycaster. Allow 3 to 4 hours to cure and sweep off excess aggregate.
2. Stonshield URT Undercoat is mixed and applied with a squeegee, then rolled with a medium nap roller.
3. Stonshield Aggregate is broadcast into the freshly rolled Undercoat using a special Stonhard Spraycaster to ensure even distribution of the aggregate. Allow to cure until the floor is tack-free (3 to 4 hours at 72°F/22°C).
4. Scrape and sweep the floor to remove all loose aggregate particles, then vacuum.
5. Stonshield URT Sealer is mixed and applied. The sealer is applied using a rubber squeegee and then rolled using a medium nap roller.
6. To achieve a medium texture, a second coat of Stonshield URT Sealer is applied in the same manner as the first.

Refer to the Stonshield URT Directions for further detail.

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.

RECOMMENDATIONS

- DO NOT attempt to install material if the temperature of Stonshield URT components and substrate are not within 40 to 85°F/5 to 30°C. **The cure time and application properties of the material are severely affected.**
- DO NOT use water or steam in the vicinity of the application. **Moisture can seriously affect the working time and other properties.**
- Use only with adequate ventilation.
- A NIOSH approved air purifying respirator (APR) equipped with organic vapor/acid gas cartridges is required during application of the URT Primer.
- Avoid contact with all liquid isocyanate and polyol resin as they may cause skin and/or eye irritation. Workmen should cover hands with impermeable rubber gloves.

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 Tech Info or upon request.
- A staff of technical service engineers is available to assist with installation, or to answer questions related to Stonhard flooring products.
- Requests for technical service or literature can be made through local sales representatives and offices, or corporate offices located worldwide.

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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