

PRODUCT DESCRIPTION

Stonclad UR is a four-component, trowel applied, polyurethane mortar system. Stonclad UR consists of a urethane-urea binder, pigments, and graded quartz aggregates. Stonclad UR can be applied at thickness ranging from 1/8 in./3 mm to 1/4 in./6 mm depending on application requirements. Stonclad UR 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 2 to 6 in./5 to 15 cm may be specified.

Waterproofing

Where the total system must be waterproofed, the use of Stonhard's Stonproof ME7 membrane system with Texture #3 broadcast to refusal is required with a strict adherence to application instructions.

Crack Treatment

When crack treatment is needed due to cracks in the substrate, the use of Stonhard's Stonproof CT5 or RH7 with Texture #3 broadcast to refusal is required with a strict adherence to application instructions.

Coatings

The system is designed as an uncoated mortar system. If coatings are desired, two coats of topcoat are required with a sanding step between the coatings.

PACKAGING

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

Mortar

2 cartons, each containing:
6 foil bags of isocyanate
6 poly bags of polyol
12 individual bags of Part C-1 aggregate

Pigment

1 carton containing:
12 bags of Part C-2 pigment packs powder

COVERAGE

Each unit of Stonclad UR 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 UR between 60 to 85°F/16 to 30°C in a dry area. Avoid excessive heat and do not freeze. The shelf life of the liquids is one year while the C-1 has a 6-month shelf life in the original, unopened container.

COLOR

Stonclad UR is available in 11 standard colors. Refer to the Stonclad Color Sheet. Color variations will exist if the Stonclad UR surface is not coated with a pigmented coating. Please contact your local Stonhard representative or Technical Service with any questions.

SUBSTRATE

Stonclad UR, 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 representative or technical service.

Note: Stonclad UR is suitable for application over new/green concrete. The concrete must be in place for a minimum of 5 days, be dry and have sufficient strength to handle mechanical preparation.

PHYSICAL CHARACTERISTICS

Compressive Strength	5,000 psi
(ASTM C-579).....	after 7 days
Tensile Strength.....	700 psi
(ASTM C-307)	
Flexural Strength	1800 psi
(ASTM C-580)	
Flexural Modulus of Elasticity	1.1 x 10 ⁶ psi
(ASTM C-580)	
Hardness	80 to 84
(ASTM D-2240, Shore D)	
Impact Resistance	>160 in./lbs.
(ASTM D-2794)	
Flammability.....	Class 1
(ASTM E-648)	
Thermal Coefficient	
of Linear Expansion	1.3 x 10 ⁻⁵ in./in.°F
(ASTM C-531)	
Water Absorption	< 1%
(ASTM C-413)	
VOC Content	5 g/l
(ASTM D-2369, Method E)	
Cure Rate	8 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. 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.

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 Urethane Primer is necessary for all applications of Stonclad UR. See the Urethane Primer Product Data sheet for details.

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 Stonclad UR Directions for further details.

APPLYING

- Material must be applied immediately after mixing.
- A suitable screed applicator is used to distribute the mixed Stonclad UR onto the floor.
- Steel finishing trowels are used to compact and smooth the surface of the material to the required thickness.
- Detailed application instructions can be found in the Stonclad UR Directions.

NOTES

- Procedures for maintenance of the flooring system during operations are described in the Stonklean Floor Cleaning Procedures Brochure.
- Specific information regarding chemical resistance is available in the Stonclad Chemical Resistance Guide. If a coating is utilized to seal the Stonclad UR 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 Stonclad UR are available online at www.stonhard.com under Tech Info or upon request.
- A staff of technical service engineers is available to answer questions related to Stonhard products specifically or flooring problems in general.
- 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.

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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USA HQ	(800) 257 7953	Mexico	+(52) 55 9140 4500	Belgium	+(32) 67 49 37 10	South Africa	+(27) 11 254 5500	Australia	+(61) 3 9587 7433
Canada	(800) 263 3112	Argentina	+(54) 11 5032 3113	Dubai, UAE	+(971) 4 3470460	India	+(91) 22 2850032		