

PRODUCT DESCRIPTION

Stontec TRF is a nominal 5 mm thick durable floor system with a decorative, stain resistant surface. It's troweled base provides superior impact resistance and allows Stontec TRF to be applied over rough substrates. The color flake broadcast layer results in an attractive, seamless floor surface. It is comprised of:

Urethane Mortar

A four component, troweled high solids urethane mortar system that is applied at an 3 mm.

TRF Undercoat

A two-component, high solids, epoxy bonding coat. A colored coat that accepts the flakes.

Stontec Flakes

Brightly colored flakes

Stonseal CA7

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

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.

Waterproofing

Where the total system must be waterproof, use of Stonhard's Stonproof ME7 membrane system with texture #3 Broadcast to refusal is required, with 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.

PACKAGING

Stontec TRF is packaged in units for easy handling. Each unit consists of:

Urethane mortar

1.5 carton containing:

6 foil bags of Isocyanate

6 poly bags of Polyol

9 individual bags of Part C-1 aggregate

0.75 carton of Part C-2 pigment

TRF undercoat

0.5 carton containing:

4 foil bags of Amine

4 poly bags of Resin

PHYSICAL CHARACTERISTICS

Tensile Strength (ASTM D-638)	7 N/mm ²
Impact Resistance (ASTM D-4226)	> 18 Nm
Abrasion Resistance (ASTM D-4060, CS-17)	<0.03 gm max
Cure Rate (@25 °C)	4 hours for Foot traffic 24 hours for normal operations
Flexural Strength (ASTM C-580)	14 N/mm ²
Flexural Modulus of Elasticity (ASTM D-790)	0.7 x 10 ⁴ N/mm ²
Hardness (ASTM D-2240, Shore D)	80
Flammability (ASTM E-648)	Class I
Thermal Coefficient of Linear Expansion (ASTM C-531)	21,6 x 10 ⁻⁶ mm/m°C
Compressive Strength (ASTM C-579)	35 N/mm ² after 7 days
VOC Content (ASTM D-2369, Method E)	Urethane Mortar - 11 g/l TRF Undercoat - 30 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.

Stontec flakes

0.67 individual boxes of small (1.5 mm) colored flakes

Or 0.50 individual boxes of large (6 mm) colored flakes

Stonseal CA7

1 carton containing:

2 foil bags of Isocyanate

(2) c.a. 4 liter cans of Amine

IMPORTANT: Appropriate primer must be ordered separately depending on the substrate.

USGBC LEED RATING

Stontec TRF 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

COVERAGE

Each unit of Stontec TRF will cover approximately 18.6 m² of surface at a nominal 5 mm thickness.

STORAGE CONDITIONS

Store all components of Stontec TRF between 16 to 30°C in a dry area. Avoid excessive heat and do not freeze. The shelf life is 2 years for a urethane mortar, 3 years for the TRF undercoat and one year for the Stonseal CA7.

COLOR

Stontec TRF is available in 12 standard colors in small (1.5 mm) or large (6 mm) sized flakes. Refer to the Stonshield color sheet. Custom colors are available upon request.

Note: Micro (0.8 mm) flakes are available upon special request.

SUBSTRATE

Stontec TRF, with the appropriate primer, is suitable for application over properly prepared concrete, both new and old. For questions regarding other substrates or an appropriate primer, contact your local Stonhard 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

The use of Urethane Primer is necessary for all applications of Stontec TRF. The Urethane Primer must be tacky during the application of the Stontec TRF Mortar. If the primer becomes tack-free, the area must be re-primed prior to continuing the application.

MIXING

- Proper mixing is critical for the products to exhibit the proper application properties, cure properties and ultimate physical properties.
- Mechanical mixing is required for all components.
- See Stontec TRF Directions for further details.

APPLYING

- DO NOT attempt to install material if the temperature of Stontec TRF components and substrate are not within 16 to 30°C. The cure time and application properties of the material are severely affected by temperatures and severely affected by humidity levels.

- The primer is mixed, applied to the floor and the mortar is immediately troweled into the wet primer and allowed to cure.
- The undercoat is mixed, applied to the floor and broadcasted to refusal with Stontec flakes. The undercoat is allowed to cure and excess flake is removed.
- The sealer is mixed, applied to the floor and allowed to cure. The sealer is lightly sanded and vacuumed.
- A second Sealer is applied in the same manner as the first and allowed to cure.

Refer to the Stontec TRF Directions for further detail.

PRECAUTIONS


- Use these materials only in strict accordance with the manufacturer's recommended safety procedures. Dispose of waste materials in accordance with government regulations.
- The selection of proper protective clothing and equipment will significantly reduce the risk of injury. Body covering apparel, safety goggles or safety glasses and impermeable gloves are required.
- In case of contact, flush area with water for 15 minutes and seek medical attention. Wash skin with soap and water.
- If material is ingested, immediately contact a physician. DO NOT INDUCE VOMITING.
- During prep-work of floor substrate or mixing of Stonhard product while adding aggregate, dust masks must be worn.

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 Stontec Chemical Resistance Guide.
- Safety Data Sheets for Stontec TRF are available online at www.stoncor-Europe.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 flooring products.
- Requests for technical service or 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-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


	
StonCor Europe Rue du Travail 9 1400 Nivelles, Belgium	
13	
DOP-2013.06.002	
EN 13813 SR-AR0.5-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:	AR0.5
Adhesion strength by pull-off test:	> 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-labeled 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 Directive (89/106):

For flooring systems not dedicated to protect or reinstate the integrity of a concrete structure, EN 13813 applies. Products according 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.

	
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11	
DOP-2013.06-002	
EN 1504-2	
Surface protection product Coating	
Permeability to CO ₂ :	SD < 38m
Permeability to water vapor:	Class II
Capillary absorption and permeability to water:	W ₂₄ < 0.1 kg/m ² x h ^{0.5}
Resistance to severe chemical attack:	See CRG**
Impact resistance:	Class II
Adhesion by pull off strength:	> 2.0 N/mm ²
Abrasion resistance:	< 3000 mg*
* Tested in combination with one coat of protective coating	
**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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