

PRODUCT DESCRIPTION

Stoncrete EFX is a four-component, trowelled, epoxy mortar system. The system base consists of a pigmented epoxy resin, amine-curing agent, graded aggregates and a larger decorative aggregate to create unique and stylish designs. Stoncrete EFX can be applied at thickness ranging from 4.5 mm to 6 mm depending on application requirements. Stoncrete EFX cures to an extremely hard, impact resistant mortar which exhibits excellent abrasion, wear and chemical resistance and can be used anywhere an epoxy mortar is required.

SYSTEM OPTIONS

Topcoats

Stoncrete EFX must be sealed with a urethane topcoat. There are multiple coatings options available depending on the desired sheen. For a matte finish, Stonseal CF7 is recommended. For a satin finish, Stonseal SK6-SF is recommended. For a lightly textured, semi-gloss finish, Stonseal SK6-GT is recommended.

Waterproofing

Where the total system must be waterproof, use of Stonhard's Stonproof ME7 membrane system is required, with strict adherence to application instructions.

Cove Base

Integral cove base options in varying heights and finishes are available to provide a seamless connection at the joint between the floor and wall. The cove base is typically made with the same EFX material as the floor surface, but it is recommended to coat the cove base with a pigmented sealer rather than trying to grind the cove base to match the floor. Contact your local Stonhard representative or Technical Service for details.

PACKAGING

Stoncrete EFX is packaged in units for easy handling. Each unit consists of:

Stoncrete EFX Base

2 cartons, each containing:

- 6 foil bags of Amine
- 6 poly bags of Resin

- 12 individual bags of Part C-1 Aggregate
- 12 individual bags of Part C-2 Aggregate

Stoncrete Groutcoat

1 carton, each containing:

- 4 foil bags of Amine
- 4 poly bags of Resin

Stonkote CE4

0.25 cartons, each containing:

- 4 foil bags of Amine
- 4 poly bags of Resin

Note 1: Stoncrete Groutcoat is used as primer and is included in the system.

Note 2: A polyurethane topcoat is not included in the Stoncrete EFX system and must be ordered separately.

COVERAGE

Each unit of Stoncrete EFX will cover approximately 18.6 m² of surface at a nominal 6 mm thickness.

STORAGE CONDITIONS

Store all components of Stoncrete EFX between 16°C and 30°C in a dry area. Avoid excessive heat and do not freeze. The shelf life is 3 years in the original, unopened container.

PHYSICAL CHARACTERISTICS

Compressive Strength	68,9 N/mm ²
(ASTM C-579).....	after 7 days
Tensile Strength.....	12 N/mm ²
(ASTM C-307)	
Flexural Strength	27.5 N/mm ²
(ASTM C-580)	
Flexural Modulus of Elasticity	1.37 x 10 ³ N/mm ²
(ASTM C-580)	
Hardness85 to 90
(ASTM D-2240, Shore D)	
Impact Resistance	>18 N/m
(ASTM D-2794)	
Abrasion Resistance	0.1 gm *
(ASTM D-4060, CS-17)	
Flammability.....	Class 1
(ASTM E-648)	
Thermal Coefficient	
of Linear Expansion	2.52 x 10 ⁵ mm/m°C
(ASTM C-531)	
Water Absorption.....	0.2%
(ASTM C-413)	
VOC Content	
(ASTM D-2369, Method E)	
.....	Mortar liquids – 28 g/l
.....	Stoncrete Groutcoat – 52 g/l
.....	Stonkote CE4 – 34 g/l
Cure Rate	24 hours for normal operations
(at 25°C)	

* Test samples finished with one coat of high solids epoxy coating.

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.

COLOUR

Stoncrete EFX is available in 5 standard colours. There are 5 base colours and 3 aggregate options available, resulting in 15 options. Refer to the Stoncrete Colour Sheet. Please contact your local Stonhard representative or Technical Service with any questions.

SUBSTRATE

Stoncrete EFX, with the appropriate primer, is suitable for application over concrete, wood, brick, quarry tile, metal or Stonset grouts. For questions regarding other possible substrates or an appropriate primer, contact your local Stonhard representative or Technical Service.

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. Other contaminants may be removed by scrubbing with a heavy-duty industrial detergent (Stonkleen TD9) 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.

A right-angle grinder and chipping hammer should be used to make 6 mm chases at all doorways and areas where Stoncrete EFX will not abut a vertical surface. On large installations it may be necessary to divide the area with a chase or a false joint. This is to create an endpoint where the installation can stop at a neat, straight line while maintaining the desired thickness.

PRIMING

The use of Stoncrete Groutcoat is necessary for all applications of Stoncrete EFX. It is included in the Stoncrete EFX system. Please see the Stoncrete EFX directions 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 20 litre pail mixer) or a larger mortar mixer (e.g., a Bough 3 Batch Mixer) is required.
- See Stoncrete EFX Directions for further details.

APPLYING

- DO NOT attempt to install material if the temperature of Stoncrete EFX components and substrate are not within 16°C to 30°C. The cure time and application properties of the material are severely affected at temperatures outside of this range.
- Material must be applied immediately after mixing.
- A suitable screed applicator is used to distribute the mixed Stoncrete EFX mortar onto the floor.
- A power trowel equipped with Stoncrete EFX plastic/metal hybrid blades is used to compact and smooth the surface of the material to the required thickness. Steel hand trowels can be used on edges and hard-to-reach areas.
- Once cured, the mortar is polished with a planetary grinder.
- Two coats of Stoncrete Grout coat are applied to the floor wet-on-wet and are allowed to cure.
- The grout coat is sanded and Stonkote CE4 is applied to the floor and allowed to cure.
- A polyurethane topcoat is applied to the floor and allowed to cure.
- Detailed application instructions can be found in the Stoncrete EFX Directions.

NOTES

- Use only with adequate ventilation.
- 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.
- Safety Data Sheets for Stoncrete EFX are available online at www.stonhard.com under Products or upon request.
- 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.
- A staff of technical service engineers is available to assist with installation, or to answer questions related to Stonhard products.
- Requests for technical literature or service 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-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

CE
StonCor Europe Rue du Travail 9 1400 Nivelles, Belgium 24
EN 13813 SR-AR1.0-B2.0-IR18
Synthetic resin flooring system for use internally in buildings (system as per Product Data Sheet)
Reaction to Fire: NPD* Release of corrosive substances: SR Water permeability: NPD* Wear resistance: AR1.0 Bond strength: ≥ B2.0 Impact resistance: IR18 Sound insulation: NPD* Sound absorption: NPD* Thermal resistance: NPD* Chemical resistance: CRG**
*NPD: No Performance Determined **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.

03/24
 © 2024 Stonhard www.stonhard.com



European Offices:

Belgium
 France
 Poland

+32 674 93 710
 +33 160 064 419
 +48 422 112 768

Spain
 Portugal
 United Kingdom
 East Europe

+34 933 623 785
 +351 227 535 642
 +44 1925 649 458
 +48 422 112 768

Germany
 The Netherlands
 Italy

+49 240 541 740
 +31 165 585 200
 +39 022 53 751