

PRODUCT DESCRIPTION

Stonclad GS is a Four-component, troweled, epoxy mortar system. The system consists of an epoxy resin, amine curing agent, pigment and selected, graded aggregates. Stonclad GS can be applied at thickness ranging from 3 mm to 6 mm depending on application requirements. Stonclad GS 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

Coatings

Stonkote HT4 is recommended to improve cleanability and increase the resistance to damage from abrasion and chemical spillages. Other coating options are available, please contact your local Stonhard representative or Technical Service for specific requirements.

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

To provide for an integral seal at the joint between the floor and the wall, cove bases in varying heights are available, contact your local Stonhard representative or Technical Service for details.

PACKAGING

Stonclad GS is packaged in units for easy handling. Each unit consists of: 2 cartons, each containing:

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

12 individual bags of of Part C-1 Aggregate

1 carton containing:

- 12 bags of Part C-2 Pigment

COVERAGE

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

STORAGE CONDITIONS

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

COLOR

Stonclad GS is available in 12 standard colors. Refer to the Stonclad color sheet. Color variations will exist if the Stonclad GS surface is not coated with a pigmented coating. Please contact your local Stonhard representative or Technical Service with any questions.

USGBC LEED RATING

Stonclad GS meets the requirements of LEED;

- MR Credit 1 – Building Reuse
- MR Credit 2 – Construction Waste Management
- IEQ Credit 4 – Low Emitting Materials
- VOC content of the total system <100 g/l

SUBSTRATE CONDITIONS

Stonclad GS, 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's 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.

PHYSICAL CHARACTERISTICS

Compressive Strength.....	69 N/mm ²
(ASTM C-579).....	after 7 days
Tensile Strength.....	12 N/mm ²
(ASTM C-307)	
Flexural Strength.....	28 N/mm ²
(ASTM C580)	
Flexural Modulus of Elasticity.....	14 KN/mm ²
(ASTM C-580)	
Hardness.....	85 to 90
(ASTM D-2240, Shore D)	
Impact Resistance.....	> 18 Nm
(ASTM D-2794)	
Abrasion Resistance.....	0.1 gm*
(ASTM D-4060, CS-17)	
Flammability.....	Class I
(ASTM E-648)	
Coefficient	
of Linear Thermal Expansion.....	1.5 x 10 ⁻² mm/m°C
(ASTM C-531)	
Water Absorption.....	0.2%
(ASTM C-413)	
VOC Content.....	4 g/l
(ASTM D-2369, Method E)	
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.

PRIMING

The use of Standard Primer is necessary for all applications of Stonclad GS over all substrates except Stonset grouts. Over Stonset grouts, Stonhard's Stonset Primer is used. Please see the appropriate 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 c.a. 20 liter pail mixer) or a larger mortar mixer (e.g., a Baugh 3 Batch Mixer) is required.
- See Stonclad GS Directions for further details.

APPLYING


- DO NOT attempt to install material if the temperature of Stonclad GS components and substrate are not within 16 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 Stonclad GS 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 GS 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 GS 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 GS are available online at www.stonhard.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 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 build up 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
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DOP-2013.01.001 EN 13813 SR-B2.0-IR18-AR1.0
Synthetic resin flooring system for use internally in buildings (system as per Product Data Sheet)
Reaction to fire:.....B _{fl} -S ¹ Release of corrosive substances: SR Adhesion strength by pull-off test: > B2.0 Impact resistance: IR18 Wear resistance:.....AR1.0 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-labelled as per Annex ZA. I, 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 Regulation nr. 305/2011.

For flooring systems not dedicated to protect or reinstate the integrity of a concrete structure, EN 13813 applies. Products acc. EN 1504-2 used as flooring systems with mechanical loads also must fulfil EN 13813. Here below indicated are the performance classes achieved 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.

CE
StonCor Europe Rue du Travail 9 1400 Nivelles, Belgium II
DOP-2013.01-001 EN 1504-2 Surface protection product
Physical Resistance/Surface Improvement Coating Reaction to Fire:B _{fi} -S ¹ Capillary absorption and permeability to water:W ₂₄ <0.1 kg/m ² x h ^{0.5} 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

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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