

STONKOTE GS4

PRODUCT DESCRIPTION

Stonkote GS4 is a two-component, solvent-free, general service, epoxy coating. It is formulated to increase abrasion and chemical resistance while improving cleanability. Stonkote GS4 is easily applied and hardens to an attractive gloss finish.

USES, APPLICATIONS

Stonkote GS4 is a general service coating designed for use whenever a high solids, corrosion-resistant, gloss coating is required. It may be applied on various substrates to both vertical and horizontal surfaces. Some applications of Stonkote GS4 include:

- In conjunction with various Stonhard flooring systems
- Protection of concrete surfaces exposed to abrasive or corrosive environments
- For substrates requiring a protective coating that is easily cleaned and maintained

PRODUCT ADVANTAGES

- 100% solids
- Long-term abrasion and corrosion resistance
- Excellent bond strength assures good adhesion
- Protects against moisture penetration
- Bonds to many different substrates
- Durable, gloss finish permits easy cleaning and maintenance
- Factory proportioned packaging ensures consistent, high quality, simplified mixing

PACKAGING

Stonkote GS4 is packaged in units for easy handling. Each unit consists of one carton containing:

- 4 foil bags of Part A (curing agent)
- 4 poly bags of Part B (resin)

COVERAGE

Approximately 37.16 m² per unit at 100 µm (micron) thickness over a porous substrate (unsealed concrete, uncoated mortar systems, etc.).

Approximately 69.68 m² per unit at 100 µm (micron) thickness over a sealed substrate (primed concrete, coated mortar system, etc.).

STORAGE CONDITIONS

Store all components of Stonkote GS4 between 16 to 29°C in a dry area. Avoid excessive heat and do not freeze. The shelf life is 3 years in the original, unopened container.

COLOR

Stonkote GS4 is available in Clear and 14 standard colors. Custom colors are available upon request.

PHYSICAL CHARACTERISTICS

Pot Life (@ 25°C)	35 minutes
Suggested Number of Coats	One
Cure Rate (@ 25°C)	8 hours for tack-free surface 24 hours minimum for normal operations
Temperature Limitations	60°C continuous exposure 93°C intermittent exposure
Fire Resistance of Dry Film VOC	Self-Extinguishing 30 g/l

Note: The above physical properties were measured in accordance with the referenced standards. Samples of the actual coating were used as test specimens.

SUBSTRATE PREPARATION

Preparing Stonhard Flooring Systems

Before coating a Stonhard floor, all trowel marks and surface imperfections must be removed to produce a smooth surface. Grind the floor using a floor grinder with medium stones and vacuum using an industrial wet/dry vacuum to remove all dust particles. The Stonhard floor is now ready to be coated with Stonkote GS4.

Preparing Concrete Substrates

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 (Stonklean 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.

PRIMING

For use over a Stonhard floor, no primer is necessary. In most circumstances Stonkote GS4 is self-priming over concrete, however, in certain circumstances Stonkote GS3 or HT Primer are recommended to ensure maximum product performance. Contact Stonhard Technical Service for further primer recommendations.

MIXING

Stonkote GS4 is supplied in factory proportioned quantities. To achieve thorough and proper mixing, the Stonkote GS4 must be mechanically mixed using a heavy-duty, slow-speed drill (400 to 600 rpm) with a Jiffy Mixer. Empty the contents of Part B into a mixing

container and pre-mix to assure the suspension of solids. Add Part A and continue to mix to a uniform consistency for 2 minutes. Avoid high speed mixing that will entrain air into the mix. Thorough mixing of the two components is required.

POT LIFE

After mixing, Stonkote GS4 has a working time of approximately 35 minutes at 25°C. The working time may vary depending on ambient and surface conditions.

APPLYING

Stonkote GS4 should be applied at ambient temperatures of 16 to 29°C and humidity below 80%. Stonkote GS4 is applied with a rubber squeegee and medium nap roller. The roller is used to remove squeegee lines and smooth out the surface. A brush may be used where necessary. Stonkote GS4 may be applied at variable thicknesses ranging from 100 to 150 µm minimum dry film thickness. Each additional coat may be applied when the surface is tack-free, which is about 8 hours. Any questions regarding the application of Stonkote GS4 should be directed to Stonhard's Technical Service Department.

CURING

The surface of Stonkote GS4 will be tack-free in 8 hours at 25°C. The coated area may be put back in service in 24 hours. Ultimate physical characteristics will be achieved in 7 days.

RECOMMENDATIONS

- Apply only on a clean, sound and properly prepared substrate.
- Minimum ambient and surface temperatures are 16°C at the time of application.
- Application and curing times are dependent upon ambient and surface conditions.

PRECAUTIONS

- Use these materials only in strict accordance with the manufacturer's recommended safety procedures. Dispose of waste materials in accordance with government regulations.
- Acetone is recommended for clean up of the unreacted Stonkote GS4 material. Use these materials only in strict accordance with manufacturer's recommended safety procedures. Dispose of waste materials in accordance with government regulations. The reacted material will require mechanical means of removal.
- 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.
- If material is ingested, immediately contact a physician. **DO NOT INDUCE VOMITING.**
- In case of contact, flush the area with copious amounts water for 15 minutes and seek medical attention. Wash skin with soap and water.
- Use only with adequate ventilation.

NOTES

- Procedures for maintenance of the flooring system during operations are described in the Stonkleen Floor Cleaning Procedures Brochure.
- For environments not referenced in the Chemical Resistance Guide, consult Stonhard's Technical Service Department for recommendations.
- Safety Data Sheets for Stonkote GS4 are available on line at www.stoncor-europe.com under Tech Info or upon request.
- A staff of technical service engineers is available to assist with product application or to answer questions related to Stonhard's products.

- Requests for technical literature or service 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.

CHEMICAL RESISTANCE GUIDE

The purpose of this guide is to aid in determining the potential value of Stonkote GS4 when exposed to the damaging effects of corrosive chemical environments.

RATING CODE

E - Excellent

G - Good

NR - Not Recommended

OS - Suitable for use where "occasional spillages" occur, when flushing with water immediately follows.

ACIDS

	RATING		RATING
Acetic - 5%	G	Hypochlorous - 5%	E
Acetic - 20%	OS	Lactic - up to 20%	OS
Acetic - Glacial	NR	Maleic - 30%	G
Benzoic - Sat.	E	Maleic - 40%	OS
Boric - Sat.	E	Nitric - 10%	G
Butyric - 10%	OS	Nitric - 30%	OS
Chromic - 10%	G	Oleic	G
Chromic - 20%	OS	Oxalic - Sat.	E
Citric - 50%	E	Perchloric - 35%	G
Cresylic	OS	Phosphoric - up to 50%	OS
Diglycolic	G	Picric - Sat.	E
Fatty	G	Phthalic	G
Fluoboric	G	Succinic - Sat.	E
Formic - up to 10%	OS	Sulfuric - 20%	E
Heptanoic	OS	Sulfuric - 50%	G
Hydrochloric - 15%	G	Sulfuric - 70%	OS
Hydrochloric - 37%	OS	Tannic - Sat.	G
Hydrofluoric - 10%	OS	Tartaric - Sat.	E

ALKALIES AND SALTS

Stonkote GS4 is rated Good to Excellent when exposed to most alkalies and salts.


SOLVENTS AND OTHER CHEMICALS

	RATING		RATING
Acetone	NR	Linseed Oil	G
Alcohol (Methyl)	OS	Methyl Ethyl Ketone	NR
Alcohol (Ethyl, Propyl, Isopropyl, Butyl)	G	Methylene Chloride	NR
Benzene	OS	Milk	E
Carbon Tetrachloride	OS	Mineral Spirits	G
Corn Oil	E	Naphtha	G
Cyclohexane	G	Oils - Cutting	G
Denatured Alcohol	G	Oils - Mineral	E
Ethylene Glycol	G	Oils - Vegetable	G
Ether	OS	Perchloroethylene	G
Formaldehyde	G	Skydrol	G
Gasoline	E	Sucrose - Sat. (Sugar)	E
Glycerine	E	Toluene	OS
Hydrogen Peroxide - 10%	G	Trichloroethylene	NR
JP5 Jet Fuel	G	Urea	G
Juices - Fruit	E	Vinegar (Household)	G
Juices - Vegetable	E	Water	E
Lard	G	Xylene	OS

Note: This data is based on laboratory tests performed under carefully controlled conditions. (All solutions are at ambient temperatures.) No warranty can be expressed or implied regarding the accuracy of this information as it will apply to actual plant operation or job site use. Plant operations and job site uses vary widely, and the individual results obtained are affected by the specific conditions encountered, which are beyond our control.

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 3.2 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	
08	
DOP-2013.13.002	
EN 13813 B _f -S ¹ -SR-AR0.5-B2.0-IR4	
Synthetic resin coating system for use internally in buildings ² (system as per Product Data Sheet)	
Reaction to fire:	B _f -S ¹
Release of corrosive substances:	SR
Wear resistance:	AR0.5
Adhesion strength by pull-off test:	B2.0
Impact resistance	> IR4
Chemical resistance:	CRG I
(1) CRG: see Stonhard Chemical Resistance Guide	
(2) Tested as part of a system build-up with Stonclad GS	

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. 1, Tables ZA 1a 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 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.

	
StonCor Europe Rue du Travail 9 1400 Nivelles, Belgium	
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DOP-2013.13-002	
EN 1504-2 Surface protection products	
Physical Resistance/Surface Improvement Coating	
Capillary absorption and permeability to water:	$W <_{0.1} \text{ kg/m}^2 \times \text{h}^{0.5}$
Impact resistance	> 4 N/m
Adhesion by pull off strength	> B2.0 N/mm ²
Abrasion Resistance	<3000 mg
Chemical Resistance*	
* 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.

Rev. 7/18
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