

PRODUCT DESCRIPTION

Stonkote HT4 is a two-component, 100% solids, epoxy coating. It is specifically formulated to provide outstanding protection from a wide range of chemicals while increasing abrasion, resistance and cleanability. Stonkote HT4 is easily applied and hardens to an attractive gloss finish.

USES, APPLICATIONS

Stonkote HT4 is an excellent protective coating and enhances the chemical and abrasion resistance of Stonclad flooring systems. Stonkote HT4 also exhibits outstanding cleanability with an attractive appearance.

PRODUCT ADVANTAGES

- 100% solids
- Long-term abrasion and corrosion resistance
- Excellent bond strength assures good adhesion
- Protects against moisture penetration
- Easy to apply to vertical and horizontal surfaces
- Durable, gloss finish permits easy cleaning and maintenance
- Factory proportioned packaging ensures consistent, high quality, mixing

PACKAGING

Stonkote HT4 is packaged in units for easy handling. Each unit consists of:

1 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 HT4 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.

COLOUR

Stonkote HT4 is available in 14 standard colours and in a clear gloss finish. Custom colours are available upon request.

SURFACE 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 HT4.

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 un-bonded 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 (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.

PRIMING

For use over a Stonhard floor, no primer is necessary. For use over a concrete substrate, HT primer or Stoncrest GS3 is recommended to ensure maximum product performance.

MIXING

Stonkote HT4 is supplied in factory proportioned quantities. To achieve thorough and proper mixing, the Stonkote HT4 must be mechanically mixed using a heavy-duty, slow-speed drill (400 to 600 rpm) with a Jiffy Mixer. Pour the contents of Part B into a mixing container and pre-mix to ensure the suspension of solids. Add Part A and continue to mix to a uniform consistency for 1 or 2 minutes. Avoid high-speed mixing that will entrain air into the mix. Thorough mixing of the two components is essential.

PHYSICAL CHARACTERISTICS

Percent Solids	100%
Pot life (@ 25°C)	25 minutes
Suggested Number of Coats	One – dark colours Two – light colours
Cure Rate (@ 25°C)	4 to 5 hours for tack-free surface 24 hours minimum For normal operations
Temperature Limitations	93°C (continuous exposure) 121°C (intermittent spills)
Fire Resistance of Dry film	Self-extinguishing

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.

POT LIFE

After mixing, Stonkote HT4 has a working time of approximately 25 minutes at 25°C. The working time may vary depending on ambient and surface conditions.

APPLICATION

Stonkote HT4 should be applied at ambient temperatures of 16 to 30°C and humidity below 80%. Stonkote HT4 must be applied immediately after mixing the two components. Stonkote HT4 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 HT4 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, approximately 4 to 5 hours. Any questions regarding the application of Stonkote HT4 should be directed to Stonhard's Technical Service Department.

CURING

The surface of Stonkote HT4 will be tack-free in 4-5 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.
- Do not use water or steam in the vicinity of the application. Moisture can seriously affect the working time and properties of the material.
- Application and curing times are dependent upon ambient and surface conditions.

PRECAUTIONS

- Toluene and Xylene solvents are recommended for clean-up of the unreacted Stonkote HT4 material. The reacted material will require mechanical means of removal. Use these materials only in strict accordance with manufacturer's recommended safety procedures. Dispose of waste materials in accordance with government regulations.
- The use of safety glasses and imperious gloves is required during application.
- 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 HT4 are available online at www.stonhard.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 HT4 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

Acetic - 15%	E
Acetic - 50%	OS
Acetic - Glacial	NR
Benzoic - Sat. 3%	E
Boric - Sat. 30%	E
Butyric - 10%	OS
Chromic - 10%	E
Chromic - 15%	E
Chromic - 40%	OS
Citric - 50%	E
Cresylic	OS
Diglycolic	G
Fatty	E
Fluoboric	G
Formic - up to 10%	G
Heptanoic	OS
Hydrochloric - Conc	E
Hydrofluoric - 15%	E
Hypochlorous - 5%	E
Lactic - up to 20%	E
Maleic - 30%	E
Maleic - 40%	G
Nitric - 10%	G
Nitric - 30%	OS
Oleic	G
Oxalic - Sat	E
Perchloric - 35%	G
Phosphoric - up to 50%	G
Picric - Sat	E
Phthalic	G
Succinic - Sat	E
Sulfuric - 20%	E
Sulfuric - 50%	G
Sulfuric - 70%	OS
Tannic - Sat	E
Tartartic - Sat	E

ALKALIES AND SALTS

Stonkote HT4 is rated Good to Excellent when exposed to most alkalis and salts.

SOLVENTS AND OTHER CHEMICALS

RATING


Acetone	OS
Alcohol (Methyl)	G
Alcohol (Ethyl, Propyl, Isopropyl, Butyl)	G
Benzene	E
Carbon Tetrachloride	E
Corn Oil	E
Cyclohexane	E
Diacetone Alcohol	E
Ethylene Glycol	E
Ether	OS
Formaldehyde	E
Gasoline	E
Glycerine	E

Hydrogen Peroxide - 10%	E
JP5 Jet Fuel	E
Juices - Fruit	E
Juices - Vegetable	E
Lard	G
Linseed Oil	E
Methyl Ethyl Ketone.	G
Methylene Chloride	NR
Milk	E
Mineral Spirits	E
Naphtha	E
Oils - Cutting	E
Oils - Mineral	E
Oils - Vegetable	G
Perchloroethylene	E
Skydrol	G
Sucrose (Sugar) - Sat	E
Toluene	E
Trichloroethylene	G
Urea	E
Vinegar (Household)	E
Water	E
Xylene	E

Note: This data is based on laboratory tests performed under carefully controlled conditions. (All solutions are at ambient temperatures, (22°C)
No warranty can be expressed or implied regarding the accuracy of this information as it applies to actual plant operations 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-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



StonCor Europe Rue du Travail 9 1400 Nivelles, Belgium 08
DOP-2013.13-003
EN 13813 SR-AR0.5-B2.0-IR4
Synthetic resin flooring system for use internally in buildings ² (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 > IR4 Chemical resistance:CRG ¹
¹ CRG: see Stonhard Chemical Resistance Guide ² Tested as part of a system build-up with Stonclad HT

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 ZA1a to ZA 1g according to the scope and relevant clauses there indicated and fulfil 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 13
DOP.2013.13.002 EN 1504-2 Surface Protection Product Ingress Protection 1.3(C)
Physical Resistance/Surface Improvement Coating Cap. Absorption & Permeability to Water Vapor $W < 0.1 \text{ kg/m}^2 \cdot \text{h}^{0.5}$ Impact resistance $> 4 \text{ N/m}$ Adhesion Strength by Pull-Off Test $> B2.0 \text{ N/mm}^2$ Abrasion Resistance $< 3000 \text{ mg}$

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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