## PRODUCT DESCRIPTION

Stonkote HB4 is a two-component, 100% solids, high build protective epoxy floor coating. Stonkote HB4, due to its high build composition, has increased abrasion resistance when compared to a general service thin film coating. It also has enhanced aesthetic appeal and cleanability. Stonkote HB4 cures to a high gloss, smooth finish.

## USES, APPLICATION

Stonkote HB4 is designed for use whenever a high build, 100% solids, chemical resistant, high gloss, smooth epoxy coating is required on horizontal surfaces. Some applications of Stonkote HB4 are:

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

## TYPICAL PROPERTIES AT 25°C

| | |
|---|---|
| **Percent Solids** | 100% |
| **Pot Life at 25°C** | 35 Minutes |
| **Cure Rate at 25°C** | 8 Hours for tack-free surface<br>24 Hours for normal operation |
| **Temperature Limitation** | 60°C continuous exposure<br>93°C intermittent exposure |
| **Fire Resistance of Dry Film** | Self-extinguishing |
| **VOC** | 27 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, values obtained on the field applied materials may vary.

## PRODUCT ADVANTAGES

- 100% Solids
- High build epoxy coating
- Dense, impervious finish with good stain resistance
- Long term abrasion and corrosion resistance
- Easily applied to horizontal surfaces
- Excellent bond strength assures good adhesion
- Bonds to many different substrates
- Durable, high gloss finish permits easy cleaning and maintenance
- Factory proportioned packaging ensures consistent high quality, simplified mixing

## PACKAGING AND COVERAGE

*Primer:*
*Porous Concrete:*
5lt Stonprime 639 Parts A & B; 20 to 30m²/5lt
*Dense Level Concrete:*
20lt SL Primer Parts A, B & C; 60 to 80m²/20lt

*Topcoat:*
5 and 20lt Stonkote HB4 Part A & B
Roller application 4 to 5m²/litre/coat, 2 coats required, 400 to 500 microns
Flocoat application 1 to 1.5m²/litre, 660 to 1000 microns

**NOTE: Coverage rates shown are theoretical. Actual coverage rates may vary. Make necessary allowances for the condition of the surface to be coated, working conditions, waste, spillage, experience level and skill of the installers, etc.**

## COLOUR

Stonkote HB4 is available in 9 standard colours. Refer to the Flooring colour chart. Custom colours are available upon request.

## REFERENCE SAMPLE

A trial reference sample should be installed by the applicator prior to start of contract to ensure correct coverages and workmanship.

## STORAGE CONDITIONS

Store all components of Stonkote HB4 between 16°C to 32°C in a dry area. Avoid excessive heat and do not freeze.

## SHELF LIFE

The shelf life is 12 months in the original, unopened container.

# PLACEMENT GUIDELINES

## SCOPE OF WORK (BOQ)
Prepare surfaces and apply Stonkote HB4 onto Stonprime 639 primed surfaces.
**Option 1:** Flocoat 1mm self-smoothing applied with 3mm notch trowels and spike rollers at 1m²/litre.
**Option 2 – Roller Coat:** High build 0.5mm roller application at 4 to 5m²/litre/coat, 2 coats required.

## 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, i.e. abrasive blasting or grinding. Other contaminants may be removed by scrubbing with a heavy-duty industrial detergent (Carboclean 250 or Carboclean 252) and rinsing with clean water. The surface must show open pores throughout with main aggregate in concrete exposed and have a sandpaper texture. Substrate moisture content prior to coating should be below 5% and substrate tensile strength above 1.5 MPa. For recommendations or additional information regarding substrate preparation, refer to Surface Preparation Data Sheet or contact StonCor Africa Technical Service Department.

## PREPARING STONHARD FLOORING SYSTEMS OR RECOATING
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.

## PRIMING AND PATCHING FOR POROUS FLOORS
Mix Stonprime 639 Parts A & B thoroughly for 5 minutes using a drill fitted with a spiral impeller. Apply 1 or 2 coats, dependant on the porosity, of Stonprime 639 penetrating primer at 4 to 6m²/litre with a roller to seal pores and achieve a uniform gloss finish. Allow to cure for 8 to 12 hours before coating. If necessary, patch cracks and holes by filling with Pro-Struct 30/35NS Adhesive or, if badly pitted, skim the surface with the edge of a steel trowel, using Stonkote HB4 Scraper Coat. Allow to cure and sand smooth before coating.

## PRIMING AND PATCHING FOR DENSE LEVEL CONCRETE
Mix SL Primer Parts A & B for 90 seconds in a 25 litre pail using a 600 rpm high torque mixer, fitted with a spiral impeller. Add Part C and mix for a further 90 seconds, ensuring no lumps exist. Do not mix by hand. Apply 2 coats of SL Primer wet-on-wet to achieve 3.3m²/litre using a rubber squeegee. Remove all ponded resin and squeegee lines before allowing primer to cure. Do not backroll the primer. If blowholes are detected in the primer, they should be skimmed level with Pro-Struct 30/35NS. Allow the SL Primer to cure for 4 to 6 hours at 25°C, ensuring that Stonkote HB4 is applied within 16 hours of priming the substrate. Drive steel nails into the existing joints to demarcate the concrete cuts.

## MIXING OF STONKOTE HB4
Under no circumstances are the supplied kits to be split. The contents of the base component in the kit is to be thoroughly mixed for 1 minute before use. Empty the entire contents of the activator into the base component. Mix thoroughly for 2 minutes with an impeller fitted to a variable speed high torque 550 RPM mixer. Transfer mixed material into another mixing container, scraping the sides and bottom of the container and remix for another 2 minutes. This step is critical to ensure complete cross-linking of components is achieved. Do not mix by hand.

## COATING
Dependent on wear and surface finish requirements, apply by either method 1 or 2 of Stonkote HB4.

1. Flocoat 1mm Notch Trowel Method (1 coat at 20m² per 20 litre kit):
   Pour mixed material in a bead on the floor and rake out using a 3mm notch trowel, spreading evenly at a thickness of 1 to 1.5mm. If necessary, use a mohair or looped roller to even out undulations. Deaerate and level by rolling with a spiked roller for up to 20 minutes after application. Spiked shoes are utilised to walk onto wet material during the levelling and deaeration process.

2. High Build 0.5mm Roller Application Method 2 (2 coats at 4 to 5m² per litre per coat):
   Apply a minimum of 2 coats of mixed material out of paint trays using short nap rollers at 4 to 5m²/litre/coat, allowing 8 to 12 hours between coats. If skilled, trained staff are available, the application time can be shortened by applying the material as a scraper coat with a steel trowel and rolling evenly with short nap rollers.

**NB: An easy cleaning, mild, non-slip finish can be achieved by overcoating the floor with Stonseal 722 Non-slip Sealer at 6 to 8m²/litre/coat.**

## CURING
At normal temperature conditions of 25°C, the coating system can be exposed to light traffic after 24 hours. Excessive traffic, aqueous cleaning and exposure to aggressive chemicals should only take place after 7 days, when full cure has been achieved.

**COLD CONDITIONS**

Low temperatures decrease flow, delays set and affects water resistance and final appearance. Materials should be conditioned for 16 hours at 21°C to 27°; heaters should be utilised to warm floors.

**RECOMMENDATIONS**

- DO NOT attempt to install material if temperature of components and substrate are not within 16 to 32°C. The cure time and application properties of the material are **severely** affected.
- DO NOT use water or steam in the vicinity of the application. Moisture can seriously affect the working time and other properties.
- Protect areas from dust and isolate access. Contamination between layers will affect the final appearance.
- Avoid contact with all liquid Parts A and B as they may cause skin and/or eye irritation. Workmen should cover hands with rubber gloves.
- Use only with adequate ventilation.

**NOTES**

- Procedures for maintenance of the flooring system during operations are described in the Stonblend Cleaning Procedures.
- Specific information regarding chemical resistance is available in the Stonblend Chemical Resistance Guide.
- Material safety data sheets for Stonblend GSI are available on request.
- A staff of technical service engineers is available to assist with installation or to answer questions related to our flooring product specifically, or flooring problems in general.

Requests for technical service or literature can be made through local sales representatives and offices, or corporate offices located worldwide.

## CHEMICAL RESISTANCE GUIDE

The purpose of this guide is to aid in determining the potential value of Stonkote HB4 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 | Latic – 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 HB4 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 Terachloride | 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.