

PRODUCT DESCRIPTION

Stonblend GSI is a nominal 5mm flooring system that offers a cost-effective alternative to terrazzo. It combines decorative looks with excellent chemical and wear resistance and cleanability. Its surface provides a moderate degree of slip resistance while remaining resistant to staining, marring and yellowing. It is comprised of:

Primer

Stonprime 786 OPR

Stonblend GSI Mortar, 9661

A three-component, trowelled mortar consisting of epoxy resin, curing agent and coloured quartz silica aggregate.

Stonblend 967 Grout Coat

A two-component, clear, UV-resistant epoxy sealer.

Stonseal CF7 Clear Matt

A two-component, non-reflective, waterborne, aliphatic polyurethane coating.

NOTE: Staining may occur depending on length of exposure time, chemical concentration and temperature.

USES, APPLICATION

Applications vary from light manufacturing, such as food and pharmaceutical processing, to laboratories, hallways, offices and holding areas in healthcare, educational and correctional facilities. It's easy to maintain, low gloss finish adds to Stonblend GSI's appeal wherever functional, attractive flooring is required.

SUBSTRATE

Stonblend GSI, in conjunction with its appropriate primer, is suitable for application over properly prepared concrete. Not recommended for use over asphalt, mastic, gypsum based products, brick or painted surfaces. These must first be removed by mechanical means to expose the substrate prior to priming and overlayment.

OPTIONS

Cove Base

To provide for an integral seal at the joint between the floor and the wall, cove bases in heights from 15cm are available.

Smooth Finish

An additional layer of Stonseal 787 Sealer, applied over the cured grout coat, may be added to produce a very smooth finish.

PACKAGING AND COVERAGE

Primer: Stonprime 786 OPR
5lt Kit; Part A & B – Approximately 3 to 4m²/litre

Mortar: Stonblend GSI 9661
12lt Kit; Part A, B & C – Approximately 2.4m²/kit

Grout Coat: Stonblend 967
2lt Kit; Part A & B – Approximately 3m²/kit

Sealer: Stonseal CF
5lt Kit; Part A & B – Approximately 60m²/kit

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.

REFERENCE SAMPLE

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

STORAGE CONDITIONS

Store all components of Stonblend GSI between 16 to 30°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.

TYPICAL PROPERTIES AT 25°C

Compressive Strength ASTM C-579	42 MPa after 7 days
Tensile Strength ASTM C-307	10 MPa
Flexural Strength ASTM C-580	15 MPa
Flexural Modulus of Elasticity ASTM C-580	3.4 MPa
Hardness ASTM D-2240, Shore D	85 to 90
Bond Strength ASTM D-4541	>1.7 MPa (100% concrete failure)
Impact Resistance ASTM D-4226	>17 Joules
Abrasion Resistance ASTM D-4060, CS-17	0.06mg max weight loss
Slip Index ASTM F-1679	0.85
Flammability ASTM D-635	Self-extinguishing Extent of burning 0.25 in max
Thermal Coefficient of Linear Expansion ASTM C-531	3 x 10 ⁻⁵ mm/mm/°C
Water Absorption ASTM C-413	0.2%
Heat Resistance Limitations	Continuous: 60°C Intermittent Spills: 93°C
Cure Rate at 25°C	16 hours foot traffic 24 hours normal operation
VOC Content	18 g/l
Colour	Available in 12 standard colours.

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.

PLACEMENT GUIDELINES

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 2 MPa. For recommendations or additional information regarding substrate preparation, refer to Surface Preparation Data Sheet or contact StonCor Africa Technical Service Department.

PRIMING

The use of Stonprime 786 OPR is necessary for all applications of Stonblend GSI over most substrates. The primer must be tacky during the application of Stonblend GSI. If the primer becomes tack-free, the area must be re-primed prior to continuing the application.

MIXING OF MORTAR

- Empty entire contents of Part A (liquid) and Part B (liquid) into a 25 litre mixing pail fitted with a JB blender and mix for 90 seconds.
- Pour the entire contents of one bag of Part C Aggregate into the rotating pail and mix for a further 90 seconds.
- When the blender stops, scrape off excess from mixing blade and remove pail, delivering it to the floor area for application.

APPLICATION

Application of the Stonblend GSI system is accomplished as follows:

1. Stonblend GSI 9661 material is mixed, just prior to use, in accordance with the prescribed directions. The material is then screed applied and trowel finished.
2. Allow a minimum of 8 hours curing time before applying the Stonblend grout coat, 967.
3. Stonblend grout coat is applied immediately after mixing. Poured onto the floor in the form of a bead, the liquid is spread over the surface using a squeegee. Once the first coat is finished, apply a second coat immediately over the first coat in a wet-on-wet application. Use a loop roller to remove squeegee lines.
4. After the grout coat has cured (12 hours minimum), apply the first coat of Stonseal CF7 using a medium nap roller.
5. After approximately 2 hours, apply a second coat of Stonseal CF7. Refer to the Stonblend GSI directions for further details.

POT LIFE

After mixing, Stonblend GSI has a working time of approximately 20 minutes at 25°C. The working time will vary depending on temperature.

CURING

At normal temperature conditions, 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 4 to 5 days, when full cure has been achieved.

RECOMMENDATIONS

- DO NOT attempt to install material if the temperature of Stonblend GSI components and substrate are not within 16 to 30°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.
- The use of NIOSH/MSHA approved respirators and safety glasses are recommended.
- 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 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.