STONHARD

STONTEC ERF

PRODUCT DATA

PRODUCT DESCRIPTION

Stontec ERF is a nominal 2 mm epoxy flake broadcast seamless flooring system comprised of:

Stonshield Aggregate
Brightly coloured quartz broadcast

Stonshield Undercoat
A three-component, solvent free epoxy undercoat consisting of resin, curing agent and filler

Stontec Flakes
Brightly coloured flakes

Stonshield Sealer
A two-component, solvent free, high performance, UV resistant, clear epoxy sealer

USES, APPLICATIONS

Applications vary from light manufacturing, such as food and pharmaceutical processing to laboratories, hallways, offices and holding areas in healthcare, educational and correctional facilities.

SUBSTRATE

Stontec ERF is suitable for application over properly prepared concrete that does not require renovation. In most cases, this will be new or very smooth concrete. Not recommended over wood, brick, tile, asphalt, mastic, gypsum based products or painted surfaces. These must first be removed by mechanical means 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 2 to 6 in./5 to 15 cm are available.

Thickness
For areas requiring increased thickness, a 1/8 to 3/16 in./0.31 to 0.47 cm of epoxy mortar may be added.

PACKAGING

Stontec ERF is packaged in units for easy handling. Each unit consists of:

Stonshield Aggregate
2 bags of coloured quartz aggregate

Stonshield Undercoat
0.66 carton containing:
- 6 foil bags of Part A (curing agent)
- 6 poly bags of Part B (resin)

0.66 boxes of Undercoat Filler

Stontec Vinyl Flakes
0.67 individual boxes of 1/16 inch coloured flakes
or
0.50 individual boxes of 1/4 inch coloured flakes

Stonshield Sealer
1 carton containing:
- 6 foil bags of Part A (curing agent)
- 6 poly bags of Part B (resin)

PHYSICAL CHARACTERISTICS

Tensile Strength (ASTM D-638)	5,200 psi
Hardness (ASTM D-2240, Shore D)	85 to 90
Bond Strength (ASTM D-7234)	>300 psi (100% concrete failure)
Impact Resistance (ASTM D-4226)	>160 in./lbs.
Abrasion Resistance (ASTM D-4060, CS-17)	0.03 gm max. weight loss
Cure Rate (@ 77°F/25°C)	12 hours for foot traffic 24 hours for normal operations
Coefficient of Friction (Dry) (ASTM F-1679)	0.79
Slip Resistance Index (Wet) (ASTM F-1679)	0.65
Flexural Strength (ASTM D-790)	4,000 psi
Flexural Modulus of Elasticity (ASTM D-790)	1.7×10^6 psi
Flammability (ASTM E-648)	Class 1
Linear Coefficient of Thermal Expansion (ASTM C-531)	17×10^{-6} in./in. °F

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.

COVERAGE

Each unit of Stontec ERF will cover approximately 200 sq. ft./18.6 sq. m of surface at a 2 mm nominal thickness.

STORAGE CONDITIONS

Store all components of Stontec ERF between 60 to 85°F/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

Stontec ERF is available in twelve standard colours an in 1/16 or 1/4 sized flakes. Refer to the Stontec Colour Sheet. Custom colours are available upon request.

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 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

The use of Standard Primer is necessary for most applications of Stontec ERF. The Standard Primer must be fully cured prior to application of the Undercoat.

APPLICATION

Application of the Stontec ERF system is accomplished as follows:

1. Standard Primer is mixed and then applied to the floor with a squeegee and a nap roller. The Stonshield aggregate is broadcast into the wet primer. Allow 8 hours to cure.
2. Stonshield Undercoat is mixed and then applied with a squeegee and rolled with a medium nap roller.
3. After 5 minutes, begin broadcasting coloured flakes and continue until a complete and even layer is bound to the Undercoat. Let cure until the surface is tack-free. Sweep off excess flakes and prepare the area for application of Stonshield Sealer.
4. Apply the first sealer coat immediately after mixing. Stonshield Sealer is applied using a rubber squeegee and a medium nap roller.
5. After the first sealer coat has cured, sand the surface with a rotary sanding machine. Vacuum the floor and apply a second sealer coat in the same manner as the first.

Refer to the Stontec ERF Directions for further detail.

RECOMMENDATIONS

- DO NOT attempt to install material if the temperature of Stontec ERF components and substrate are not within 60 to 85˚F/16 to 30˚C. **The cure time and application properties of the material will be 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 during operations are described in the Stontec Cleaning Procedures.
- Specific information regarding chemical resistance is available in the Stontec Chemical Resistance Guide.
- Material Safety Data Sheets for Stontec ERF are available on line at www.stonhard.ca under Tech Info or upon request.
- A staff of technical service engineers is available to assist with installation, or to answer questions related to Stonhard flooring products.
- Requests for technical service or literature can be made through local sales representatives and offices, or corporate offices located worldwide.

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STONHARD
www.stonhard.ca
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