

PRODUCT DATA

STONDECK FB4 BALCONY WATERPROOFING SYSTEM

PRODUCT DESCRIPTION

StonDeck FB4 is a flexible, multi-layer balcony waterproofing system which provides a colourful, crack bridging, slip resistant wearing surface for exterior balconies and walkways.

USES / APPLICATIONS

StonDeck FB4 cosmetically enhances and provides lighter, safer balconies. StonDeck FB4 is suitable for refurbishment of existing balconies and on new construction projects.

ADVANTAGES

- Waterproof - Protects from chlorides
- Aesthetically attractive – brightens up concrete
- Hard wearing – abrasion resistant
- Slip resistant
- Resistant to cracking
- Excellent bond strength

MODEL SPECIFICATION

Product: StonDeck FB4 – Balcony Waterproofing System

Finish: Gloss

Thickness: 40-50 mils (with aggregates)

SYSTEM COMPONENTS

StonDeck Epoxy Primers

Due to the variable nature of site conditions, primer is not included in the system. Our recommended primer for most applications is StonDeck Primer HT. A complete range of Epoxy Primers for poor quality and damp substrates are also available. See separate data sheets.

StonDeck Membrane

A two-component, flexible hybrid epoxy membrane used to provide; crack bridging, waterproofing, and provide system thickness.

StonDeck Aggregate*

A high-wear graded quartz aggregate broadcast to provide an abrasion, slip and wear resistant surface.

*System durability can be upgraded by substituting for aluminum oxide aggregates.

StonDeck UV Finish

A two component, UV stable, low viscosity sealer to hold aggregate and provide an abrasion resistant decorative finish.

PHYSICAL CHARACTERISTICS

The figures that follow are typical properties achieved in laboratory tests at 20°C (68°F) and at 50% Relative Humidity.

Slip Resistance ASTM F1679	Dry > 0.8 ¹ Wet > 0.8 ¹
Water Absorption	<1.5%
Chemical Resistance	Resistant to gasoline, oil, diesel, antifreeze, hydraulic fluid, chlorides and battery acids
Abrasion Resistance (Finish)	Taber Abrader: 70 mg loss per 1,000 cycles (1 kg - C17)
Impact Resistance ASTM D2794	Direct/Reverse lbs. 16 / 2
System Elongation % ASTM D412	400% - Membrane
Bond Strength ASTM D7234	>400 psi (substrate failure)

¹When tested with 40 grit quartz

SUBSTRATE REQUIREMENTS

Concrete substrate should be a minimum of 25 MPa, sound and free from laitance, dust, oils, and other contamination. Substrate should be dry to 80% Relative Humidity. (See Primers for damp/poor substrates.)

PACKAGING

StonDeck FB4 is conveniently packaged as detailed below for easy handling.

StonDeck Primer

Primer is not included in kit. StonDeck Primer HT is recommended for most applications.

StonDeck Membrane

4 gallon pails of epoxy hybrid membrane.
(approx. 80 sq. ft. per gallon at 20 mils.)

Broadcast Aggregate*

30 lb bags of quartz broadcast aggregate (approx. 150 sq. ft./bag). Various sizes available upon request.

*(Can be substituted with aluminum oxide for higher abrasion resistance)

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StonDeck UV Finish

UV stable top coat to hold aggregate and provide a slip-resistant finish (approx. 150 sq. ft./gallon @ 10 mils).

STORAGE CONDITIONS

Store all components between 60°F to 77°F / 16°C to 25°C in a dry area. Keep out of direct sunlight. Avoid excessive heat and do not freeze.

COLOUR

StonDeck FB4 is available in a range of colours. Refer to the StonDeck colour sheet. Custom colours are available upon request with extended lead times.

SPEED OF CURE

	20°C	Traffic Type
Light Traffic	24 hrs	Foot, occasional vehicle
Full Chemical Cure	7 days	

CLEANING AND MAINTENANCE

For best performance clean regularly using a single or double rotary scrubber drier in conjunction with a mildly alkaline detergent or pressure wash.

ENVIRONMENTAL CONSIDERATIONS

The finished system is assessed as non-hazardous to health and the environment. The long service life and seamless surface reduce the need for repairs, maintenance and cleaning. Environment and health considerations are controlled during manufacture and application of the products by Stonhard staff and fully trained and experienced contractors.

SUBSTRATE

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 and rinsing with clean water. The surface must show open pores throughout and have a sandpaper-like texture. For recommendations or additional information regarding a range of options for substrate priming and preparation, contact Stonhard's Technical Service Department.

PRIMING

StonDeck Primers are available for poor quality and damp substrates when required. The primer should be fully cured and the concrete should be completely sealed off prior to the application of the membrane. For recommendations or additional information regarding substrate priming, contact Stonhard's Technical Service Department.

POT LIFE

After mixing, the StonDeck FB4 components will have a working time of approximately 10-15 minutes @ 20°C. The working time varies greatly depending upon temperature.

BANDING

Proper banding of any cracks will ensure that the system is able to bridge dynamic cracking found in most balconies. Application of the banding is accomplished as follows;

1. Cracking shall be chased out to a minimum of 1/4" x 1/4" (6mm x 6mm) and cleaned by vacuum.
2. Cleaned and chased cracks shall be filled with a suitable, compatible PU sealant.
3. StonDeck Membrane is mixed and applied to the prepared floor using a brush to a thickness of approximately 30 mils (0.8 mm). Apply the banding to an approximate overall width of at least twice the slab depth at that location. Introduce localized reinforcement as required. Allow to cure.

Note: Membrane may be applied wet on wet to PU sealant.

APPLYING

Application of the StonDeck system is accomplished as follows;

1. StonDeck HT Primer is mixed and applied immediately to the floor. The material is distributed using nap rollers. Allow to cure.
2. StonDeck Membrane is mixed and poured onto the floor. The material is distributed using notched trowel/squeegee and back rolled to achieve a smooth finish. Allow to cure.
3. StonDeck UV Finish is mixed and applied directly to the membrane (max. 24 hours). The material is distributed using nap rollers. Ensure an even coat of approximately 8-10 mils is applied, broadcast chosen aggregates evenly and back roll to fully encapsulate. Allow to cure prior to opening to traffic.

Refer to StonDeck FD Directions for further details.

BUILDING INTERFACE / UPTURNS

Due to variance in construction methods, the interface between the balcony waterproofing system and building envelope waterproofing should be evaluated carefully on a case by case basis to ensure correct integration of the various components. Stonhard Technical Services can provide additional information upon request.

RECOMMENDATIONS

- DO NOT attempt to install material if the StonDeck FB4 components are not within 60 to 77°F / 16 to 25°C
- DO NOT use water or steam in the vicinity of the application.
- The use of suitable protective clothing, gloves and safety glasses must be worn during mixing and application of the product.
- Avoid Contact! In case of contact with eyes, rinse immediately with copious amounts of water and seek medical attention. In case of contact with skin, clean immediately with water and soap.

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NOTES

- Safety Data Sheets for StonDeck FB4 products are available upon request.
- A staff of Technical Service Engineers is available to assist with installation or to answer questions related to Stonhard Decking products.
- Requests for technical service or literature can be made through local sales representatives and offices or corporate offices located worldwide.

Important:

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