

PRODUCT DATA

STONDECK FD2 HD Intermediate Deck System - Heavy Duty



DESCRIPTION

StonDeck FD2 HD is a flexible, multi-layer car park deck coating system which provides a colourful, crack bridging, waterproof wearing surface for indoor covered decks, underground parking garages, light duty ramps, turning areas and walkways and is designed to meet requirements of CSA S413-07.

USES / APPLICATIONS

StonDeck FD2 HD cosmetically enhances and provides lighter, safer environments to visit. StonDeck FD2 HD is suitable for refurbishment of existing decks and on new construction projects.

BENEFITS

- Fire resistant
- Waterproof - Protects from chlorides
- Aesthetically attractive – brightens up dull, dark, musty car parks
- Hard wearing – abrasion resistant
- Slip resistant
- Resistant to cracking
- Excellent bond strength
- Reduces noise - stops tire squeal

MODEL SPECIFICATION

Product: StonDeck FD2 HD – Interior Deck Membrane
Finish: Gloss
Thickness: 70-80 mils

SYSTEM COMPONENTS

StonDeck FD Membrane

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

StonDeck SF

A two-component, semi-flexible polyurethane bodycoat to hold the broadcast aggregate.

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 emeraldum or aluminum oxide aggregates.

StonDeck Finish*

A two component PU sealer to seal aggregate and provide an abrasion resistant decorative finish.

*UV resistant sealer options available upon request.

ADDITIONAL COMPONENTS (If required)

StonDeck Primers

A range of two component, low viscosity epoxy primers to provide a strong, secure bond on damp and poor quality substrates.

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.)

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 >1.0 Wet >1.0
Water Absorption	<1.5%
Chemical Resistance	Resistant to gasoline, oil, diesel, antifreeze, hydraulic fluid, chlorides and battery acids
Abrasion Resistance (Finish)	Taber Abrader: 30 mg loss per 1000 cycles (1 kg - C17)
Impact Resistance ASTM D2794	Direct/Reverse lbs. 16 / 2
System Elongation % ASTM D412	400% – Membrane 100% – Bodycoat 50% – Finish
Bond Strength ASTM D7234	>400 psi (substrate failure)
Resistance to Chloride Ions ASTM C1202	No chloride ion penetration after 28 days DOT BD47/94: Appendix B
Tear Strength (MOAT 27 Method 5.4.1)	192 N (43 lb)

PACKAGING

StonDeck FD2 HD is conveniently packaged as detailed below for easy handling.

StonDeck Primer (If required)

As required a range of Epoxy Primers for poor quality and damp substrates. See separate data sheets.

StonDeck FD Membrane

4.5 gallon pails of epoxy hybrid membrane.
(Approx. 50 sq. ft. per. gallon at 30 mils.)

StonDeck SF Bodycoat

3 gallon pail of polyurethane bodycoat designed to hold broadcast aggregate (approx. 80 sq. ft. per gallon @ 20 mils).

Broadcast Aggregate*

50 lb bags of quartz broadcast aggregate*.
(Approx. 90 sq. ft./bag)

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

StonDeck Finish

3 gallon pail of StonDeck Finish Resin.
(approx. 80 sq. ft./ gallon at 20 mils otexture)

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 FD2 HD is available in a range of colours. Refer to the StonDeck FD 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 traffic	48 hrs	Normal vehicle traffic
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 StonCor 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 contaminant's 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-like texture. For recommendations or additional information regarding a range of options on substrate priming and preparation, contact StonCor's Technical Service Department.

PRIMING (as required)

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 StonCor's Technical Service Department.

POT LIFE

After mixing, the StonDeck FD2 HD components will have a working time of approximately 10-15 minutes @ 20°C. The working time varies greatly depending upon temperature.

Important:

StonCor believes the information contained here to be true and accurate as of the date of publication. StonCor 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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BANDING

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

1. StonDeck Primer is mixed and applied immediately to the floor. It is applied using a nap roller to a width of 2" (50 mm) wider than the planned application of the membrane layer allow to cure.
2. StonDeck FD Membrane is mixed and applied immediately to the primed 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.

APPLYING

Application of the StonDeck FD2 HD system is accomplished as follows;

1. StonDeck Primer (If required) is mixed and applied immediately to the floor. The material is distributed using nap rollers. Allow to cure.
2. StonDeck FD Membrane is mixed and poured onto the floor. The material is distributed using notched trowel/squeegee and back rolled to ensure even distribution. Allow to cure.
3. StonDeck SF is mixed and applied to the membrane. The material is distributed using notched trowel/squeegee and back rolled to ensure even distribution. After 5 minutes maximum, the chosen aggregate is broadcasted until refusal into the wet bodycoat. Allow to cure then remove excess aggregate.
4. StonDeck Finish is mixed and applied directly to the aggregate/SF layer. The material is distributed using nap rollers. Ensure an even coat of approximately 10-20 mils is applied to seal the broadcast aggregate.

Refer to StonDeck FD2 HD Directions for further details.

RECOMMENDATIONS

- DO NOT attempt to install material if the StonDeck FD2 HD 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.

NOTES

- Material Safety Data Sheets for StonDeck FD2 HD products are available upon request.
- A staff of Technical Service Engineers is available to assist with installation or to answer questions related to StonCor Decking 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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