

## PRODUCT DESCRIPTION

Stondeck FD4 is a slip-resistant, traffic-bearing, broadcast system. The membrane allows for excellent crack bridging and flexibility. The rigid nature of the base allows the system to hold aggregate and provide long-term wear resistance. It is recommended for an outdoor, exposed area where crack-bridging and waterproofing is necessary, generally the top deck. It is composed of:

### Stonproof XT7

A two-component, free-flowing, elastomeric membrane that can handle dynamic stress. Also ensures the system remains waterproof. Refer to the Stonproof XT7 Product Data Sheet for more information.

### Stondeck Basecoat

A two-component, free-flowing, urethane, broadcast accepting base layer.

### Stonseal GS6

A two-component, high-performance, aliphatic polyurethane. UV-stable coating. Stonseal GS6 combines superior chemical and abrasion resistance with excellent adhesion and weatherability.

### Alternative Topcoat

#### Stonseal PA7 topcoat

Stonseal PA7 is a two-component, high performance, pigmented aspartic polyurethane coating. Stonseal PA7 combines superior chemical and abrasion resistance with excellent adhesion and weatherability.

**Note:** For VOC restricted installs, Stonseal PA7 is a more compliant option than Stonseal GS6.

## PACKAGING

Stondeck FD4 is packaged in units for easy handling. Each unit consists of:

**Note:** The Primer required for this application is not included in the unit and MUST BE ordered separately.

### Stonproof XT7

1 carton of Stonproof XT7 Isocyanate  
(1) c.a. 20 liter pail of Stonproof XT7 Amine

### Stondeck Basecoat

1 carton of Stondeck Basecoat Isocyanate  
(1) c.a. 20 liter pail of Stondeck BC/TC Polyol

### Stonseal GS7

3 cartons each containing:  
1 foil bags of Isocyanate  
(1) c.a. 4 liter can of Polyol Resin

### Alternative Topcoat:

#### Stonseal PA7 Topcoat

2.75 cartons each unit containing:  
2 foil bags of Isocyanate  
(2) c.a. 4 liter casn of Amine

### Texture 8 Broadcast Aggregate

6.67 individual bags of aggregate

## COVERAGE

Each unit of Stondeck FD4 will cover approximately 23 m<sup>2</sup> of surface.

## STORAGE CONDITIONS

Store all components of Stondeck FD4 between 16 to 30°C in a dry area. Avoid excessive heat and do not freeze.

## COLOR

Stondeck FD4 is available in 8 standard colors. Refer to the Stondeck Topcoat Color Sheet. Custom colors are available upon request.

## PHYSICAL CHARACTERISTICS

Tensile Strength	Stonproof XT7	14,5 N/mm <sup>2</sup>
(ASTM D-638)	Basecoat	13.8 N/mm <sup>2</sup>
	Stonseal GS6	19.3 N/mm <sup>2</sup>
	Stonseal PA7	18.6 N/mm <sup>2</sup>
Hardness	Stondeck Basecoat	75D
(ASTM D-2240, Shore D)	Stonproof XT7	84A
VOC Content	Stonproof XT7	46 g/l
	Basecoat	2 g/l
	Stonseal GS6	234 g/l
	Stonseal PA7	94 g/l
Cure Rate		8-12 hours for foot traffic
(@25°C)		24 hours for normal operations
Standard System Thickness		1,6 mm
	Stonproof XT7	0.6 mm
	Stondeck Basecoat	0.6 mm
	Stonseal GS6/PA7	0.4 mm

**Note:** The above thickness readings are exclusive of primer and aggregate.

**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 environment, values obtained on field applied materials may vary and certain test methods can only be conducted on lab-made test coupons.

All requirements for ASTM C-957 are met with Stondeck FD4 when Stonseal GS6 is used as the topcoat.

## **SUBSTRATE**

Stondeck FD4, in conjunction with the proper primers, is suitable for application over properly prepared concrete, metal or wood. For questions regarding other possible substrates or an appropriate primer, contact your local Stonhard representative or Technical Service.

## **SUBSTRATE PREPARATION**

Proper preparation is critical to ensure an adequate bond and system performance. The substrate must be dry and properly prepared utilizing mechanical methods. Questions regarding substrate preparation should be directed to your local Stonhard representative or Technical Service.

## **TREATMENT OF JOINTS AND CRACKS**

All guidelines and recommendations found in both ASTM C-1127, Standard Guide for Use of High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane with an Integral Wearing Surface and ASTM C-1193, Standard Guide for use of Joint Sealants should be followed.

**Note:** Refer to Engineering Details on the Resource Center for more information. These details relate directly to ASTM C-1127.

### **Expansion and Isolation Joints On All Deck Levels**

These joints are designed to handle significant structural movement. Typical membrane/wear surface systems are unable to bridge the amount of movement present in these joints and the system should be terminated on either side of the joint and the joint sealant system utilized to address the joint finish.

Larger joints greater than c.a. 38 mm typically require a mechanical joint. Contact Technical Service for specific recommendations.

### **Hairline Cracks and Cold Seams**

Hairline cracks (less than 1.6 mm) in width and substrate cold seams are cleaned well and filled with Stonproof XT7 to a width of c.a. 76 mm on either side of the crack or seam.

- Cracks and cold seams are cleaned out well to remove loose particles.
- Stonproof XT7 is mixed and applied filling the joint with a minimum of 0,8 mm of membrane.

### **Cracks Wider than 1.6 mm and Control/Expansion Joints Less than 25,4 mm in Width**

Wider cracks and control joints are pre-filled with a sealant to ensure the membrane layer is uniform across the crack area.

- Cracks larger than 1.6 mm are routed out and then filled with a high performance medium-modulus non-sag polyurethane sealant ensuring the filled sealant is flush with the concrete level, but not running out onto the deck surface. Please consult the Technical Service to for the proper sealant recommendation.
- Control joints are detailed with backer rod and filled with a high performance medium-modulus non-sag polyurethane sealant ensuring the filled sealant is flush with the concrete level, but not running out onto the deck surface.
- Once the sealant is cured, Stonproof XT7 is applied to a width of c.a. 76 mm on either side of the crack/joint over the primed area to a thickness of 0,8 mm.

**Note:** All control joints located on exposed upper decks must be honored utilizing an appropriate sealant. The deck membrane system must not be applied over the joints in these areas.

### **Flashing**

Flashing utilizing Stonproof XT7 and appropriate engineering fabric will be utilized where indicated on drawings.

For further questions regarding Stonproof XT7 application, please refer to the Stonproof XT7 Product Data or contact the Technical Service team.

## **PRIMING**

For standard applications of Stondeck FD4, primer is required prior to the application of Stonproof XT7. HT Primer or stonchem Primer is the required primer. Refer to the Stonproof XT7 product data sheet for further details.

## **MIXING**

- Proper mixing is critical for the product to exhibit the proper application properties, cure properties and ultimate physical properties.
- Mechanical mixing using a slow-speed drill and a mixing blade.
- See Stondeck FD4 Directions for further details.

## **APPLYING**

- For optimal working conditions, install Stondeck FD4 when the material and substrate temperature is between 16 to 30°C. The cure time and application properties of the material are severely affected at temperatures outside of this range.
- Material must be applied immediately after mixing.
- Area must be primed using HT Primer or Stonchem Epoxy Primer. Allow primer to cure
- Apply Stonproof XT7 with a 0,8 mm squeegee.
- Backroll the material with a nap roller.
- Once the Stonproof XT7 is cured, apply Stondeck Basecoat with a 0,8 mm notched squeegee.
- Backroll the material with a nap roller.
- Wait about 15 minutes from the time the material has been squeegeed, than broadcast Texture 8 to refusal.
- Once cured, remove excess aggregate.
- Apply Stonseal GS7/PA7.
- Detailed application instructions can be found in the Stondeck FD4 Directions.

## PRECAUTIONS

- Use these materials only in strict accordance with the manufacturer's recommended safety procedures. Dispose of waste materials in accordance with government regulations.
- The use of NIOSH/MSHA approved respirators using an organic vapor/acid gas cartridge is mandatory.
- The selection of proper protective clothing and equipment will significantly reduce the risk of injury. Body covering apparel, safety goggles or safety glasses and impermeable gloves are required.
- In case of contact, flush area with water for 15 minutes and seek medical attention. Wash skin with soap and water.
- If material is ingested, immediately contact a physician. **DO NOT INDUCE VOMITING.**
- Use only with adequate ventilation. Inhalation of vapors may cause severe headaches, nausea and possibly unconsciousness.
- During prep-work of floor substrate or mixing of Stonhard product while adding aggregate, dust masks must be worn.

## NOTES

- Use only with adequate ventilation.
- Procedures for cleaning of the flooring system during operations can be found in the Stonhard Floor Maintenance Guide.
- Specific information regarding chemical resistance is available in the Stondeck Chemical Resistance Guide.
- Safety Data Sheets for Stondeck are available online at [www.stonhard.com](http://www.stonhard.com) under Products or upon request.
- The appearance of all floor, wall and lining systems will change over time due to normal wear, abrasion, traffic and cleaning. Generally, high gloss coatings are subject to a reduction in gloss, while matte finish coatings can increase in gloss level under normal operating conditions.
- Surface texture of resinous flooring surfaces can change over time as a result of wear and surface contaminants. Surfaces should be cleaned regularly and deep cleaned periodically to ensure no contaminant buildup occurs. Surfaces should be periodically inspected to ensure they are performing as expected and may require traction-enhancing maintenance to ensure they continue to meet expectations for the particular area and conditions of use.
- A staff of technical service engineers is available to assist with installation, or to answer questions related to Stonhard products.
- Requests for technical literature or service can be made through local sales representatives and offices, or corporate offices located worldwide.

### IMPORTANT:

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