

### PRODUCT DESCRIPTION

Stontec UTF is a nominal 2 mm flake broadcast flooring system that combines a decorative appearance with excellent chemical, stain and wear resistance. This polyaspartic urethane system creates a stain resistant surface that can be installed with quick turn-around times and low odor. It is comprised of:

#### **Stontec UTF Primer**

A two-component, low viscosity, urethane primer

#### **Stonshield Aggregate**

Brightly colored, quartz broadcast aggregate

#### **Stontec UTF Undercoat**

A three-component, undercoat consisting of a polyaspartic urethane resin, aliphatic isocyanate and filler

#### **Stontec Flakes**

Brightly colored flakes

#### **Stontec UTF Sealer**

A two-component, UV resistant, aliphatic polyaspartic urethane 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 UTF, in conjunction with its appropriate primer, is suitable for application over properly prepared concrete, wood or steel surfaces. This system is 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 floor-wall interface, cove base in heights from 2 to 6 in./5 to 15 cm is available.

#### **Thickness**

For areas requiring increased thickness, a 1/8 to 3/16 in./3 to 5 mm of mortar may be added.

### PHYSICAL CHARACTERISTICS

<b>Tensile Strength</b> . . . . .	2,200 psi (ASTM D-638)
<b>Flexural Strength</b> . . . . .	2,000 psi (ASTM D-790)
<b>Flexural Modulus of Elasticity</b> . . . . .	2.6 x 10 <sup>6</sup> psi (ASTM D-790)
<b>Hardness</b> . . . . .	60 (ASTM D-2240, Shore D)
<b>Bond Strength</b> . . . . .	>300 psi (ASTM D-7234) (100% concrete failure)
<b>Indentation</b> . . . . .	no indentation (MIL-D-3134F)
<b>Linear Coefficient of</b> . . . . .	23 x 10 <sup>-6</sup> in./in. °F
<b>Thermal Expansion</b> (ASTM C-531)	
<b>Working Time @ 75°F/24°C</b> . . . . .	15 to 20 minutes (ASTM C-308)
<b>Initial Set @ 75°F/ 24°C</b> . . . . .	3 hours
<b>Curing Time</b> . . . . .	8 hours at 77°F/25°C
<b>Impact Resistance</b> . . . . .	Exceeds 160 in.-lbs. (ASTM D-4226)
<b>Slip Resistance Index</b> . . . . .	Wet 0.65 (ASTM F-1679) Dry 0.79
<b>Abrasion Resistance</b> . . . . .	0.03 gm max. weight loss (ASTM D-4060, CS-17)
<b>Flammability</b> . . . . .	Class I (ASTM E-648)

**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.

### PACKAGING

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

#### **UTF Primer**

- One carton containing:
  - (1) 1 gallon can of isocyanate
  - (1) 1 gallon can of polyol resin

#### **Stonshield Aggregate**

2 individual bags of colored quartz aggregate

### **Stontec UTF Undercoat**

One carton containing:

- 2 foil bags of aliphatic isocyanate
- (2) 1 gallon cans of polyaspartic resin
- 2 bags of Undercoat filler

### **Stontec Flakes**

0.5 box of 1/16 inch colored flakes

or

.4444 box of 1/4 inch colored flakes

### **Stontec UTF Sealer**

One carton containing:

- 2 foil bags of aliphatic isocyanate
- (2) 1 gallon cans of a polyaspartic resin

### **COVERAGE**

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

### **STORAGE CONDITIONS**

Store all components of Stontec UTF between 60 to 85°F/16 to 30°C in a dry area. Avoid excessive heat and do not freeze.

### **COLOR**

Stontec UTF is available in 12 standard colors and in 1/16 in. and 1/4 in. sized flakes. Refer to the Stontec UTF Color Sheet for details. Custom colors 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 Stontec UTF Primer is necessary for most applications of Stontec UTF. The UTF Primer must be tack-free prior to the application of the Undercoat.

### **APPLYING**

Application of the Stontec UTF system is accomplished as follows:

1. Stontec UTF Primer is mixed and applied to the floor with a squeegee and a nap roller. The Stonshield aggregate is then broadcast into the wet primer. Allow 3 to 4 hours for the primer to cure.
2. Stontec UTF Undercoat is mixed and applied to the floor with a 30 mil notched squeegee and a medium nap roller.

3. After 5 minutes, begin broadcasting colored 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 UTF Sealer.
4. Apply the first sealer coat immediately after mixing. Stontec UTF 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.

**Note:** Detailed instructions on application and installation can be found in the Stontec UTF Directions.

### **HIGH HUMIDITY APPLICATIONS**

It is common to have installation difficulties when applying UTF Undercoat and Sealer under high humidity conditions. The working time of the UTF Undercoat and Sealer are inversely related to the relative humidity level. Under these conditions, the working time of the material is greatly reduced as the excessive moisture present in the atmosphere accelerates the cure.

To slow down the cure rate, limit the amount of moisture coming in contact with the material. It is common practice, once materials are mixed, to pour the entire bucket onto the floor. Though this is advantageous when working with epoxies, it is potentially detrimental when working with these unique urethanes. Increase the open time by pouring only a portion of the material onto the floor while leaving the rest in the bucket until it is ready to be applied. This limits the amount of material being exposed to the moisture in the air at one time. The cure rate of these urethane materials is not accelerated when sitting in the bucket, unlike epoxy materials. Also, NEVER mix multiple mixes at once; only mix one mix at a time!

Low humidity will affect this product in the opposite way. When the humidity is low it is not unusual for the undercoat to take more than 4 hours to cure. It may even stay slightly soft for up to 12 hours. This will not affect the overall performance of the finished system. As the material cures the physical properties will develop to their full potential.

### **RECOMMENDATIONS**

- DO NOT attempt to install material if the temperatures of Stontec UTF components are not within 40 to 85°F/5 to 30°C. **The cure time and application properties of the material are affected by temperature and severely affected by humidity levels.**
- 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 suitable protective clothing, gloves and safety goggles must be worn during mixing and application of the product. NIOSH/MSHA approved respirators and safety glasses are required.
- Avoid contact with all liquid resins as they may cause skin and/or eye irritation. Workmen should cover hands with impermeable rubber gloves.
- Use only with adequate ventilation.

## NOTES

- 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 Stontec Chemical Resistance Guide.
- Material Safety Data Sheets for Stontec UTF are available online at [www.stonhard.com](http://www.stonhard.com) 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.

**IMPORTANT:**

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