

### PRODUCT DESCRIPTION

Stonlux AT is a seamless, self-leveling, conductive floor system that provides outstanding static control properties along with the high performance and durability associated with Stonhard flooring systems. Stonlux AT provides a smooth, easy to clean surface and has excellent chemical and abrasion resistance. This system can be applied at a thickness of 2 mm or 3 mm and is offered in a conductive resistance range. Stonlux AT is available in 6 standard colors with custom colors available upon request. The Stonlux AT system is comprised of:

#### **Standard Primer**

A two-component, penetrating epoxy primer

#### **SL Primer**

A three-component, thixotropic, pigmented epoxy primer

#### **ATK Primer**

A two-component, conductive epoxy primer

#### **Ground Plates**

Ensures conduction and dissipation of electricity

#### **Stonlux AT**

A three-component, self-leveling, epoxy formulation consisting of resin, curing agent and selected, graded aggregates that provide conductivity throughout the flooring system

### USES, APPLICATIONS

Stonlux AT flooring systems can be used in most applications where static electricity must be controlled. It is especially applicable in electronics manufacturing, packaging, assembly and test facilities, and in installations of highly sensitive electronic equipment. Since Stonlux AT is seamless and easy to maintain, it is ideal for clean environments. Stonlux AT is also perfect for static control applications, which require good chemical, impact and abrasion resistance.

### SUBSTRATE

Stonlux AT, with the appropriate primer, is suitable for application over concrete, wood or metal. Not recommended on asphalt, brick, quarry tile, mastic or painted surfaces. These must first be removed by mechanical means to expose the substrate prior to priming and overlayment.

### PHYSICAL CHARACTERISTICS

<b>Tensile Strength</b> . . . . .	2,250 psi
(ASTM C-307)	
<b>Flexural Strength</b> . . . . .	4,200 psi
(ASTM C-580)	
<b>Flexural Modulus of Elasticity</b> . . . . .	$3.8 \times 10^5$ psi
(ASTM D-790)	
<b>Hardness</b> . . . . .	70 to 80
(ASTM D-2240, Shore D)	
<b>Bond Strength</b> . . . . .	>300 psi
(ASTM D-7234)	(100% concrete failure)
<b>Abrasion Resistance</b> . . . . .	0.10 gm max. weight loss
(ASTM D-4060, CS-17)	
<b>Coefficient of Friction (Dry*)</b> . . . . .	0.76
(ASTM F-1679)	
<b>Thermal Coefficient of Linear Expansion</b> . . . . .	$5.3 \times 10^{-5}$ in./in.°C
(ASTM C-531)	
<b>Water Absorption</b> . . . . .	0.3%
(ASTM C-413)	
<b>Heat Resistance Limitation</b> . . . . .	140°F/60°C
	(continuous exposure)
	200°F/93°C
	(intermittent spills)
<b>Cure Rate</b> . . . . .	24 hours for initial set
(@ 77°F/25°C)	48 hours for light traffic
	72 hours normal operations

**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.

\*Due to the smooth nature of this product, Stonlux AT is only recommended in dry environments.

### SYSTEM 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.

#### **Moisture Barrier**

To ensure long-term adhesion to concrete slabs in the absence of a proper vapor barrier, the use of Stonhard's Stonfil OP2 grouting system is required with strict adherence to application instructions.

## PACKAGING

Stonlux AT is packaged in units for easy handling. Each unit consists of 1 carton containing:

- 1 foil bag of Part A (curing agent)
- (1) 2 gallon pail of Part B (resin)

1 bag of Part C (aggregate)

**Note:** Aggregate is packaged 6 bags per carton.

## COVERAGE

Each unit of Stonlux AT will cover approximately:

- 60 sq. ft./5.58 sq. m at 80 mil/2 mm thickness
- 40 sq. ft./3.76 sq. m at 1/8 in./3 mm thickness

## STORAGE CONDITIONS

Store all components of Stonlux AT between 65 to 85°F/18 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.

## COLOR

Stonlux AT is available in 6 standard colors. Refer to the Stonlux Color Sheet.

## 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 material 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.

**Note:** Since Stonlux AT is a free-flowing system, it is essential that the installation surface be flat. When going over a rough substrate, it is important that any holes be patched prior to installation.

## PRIMING

The prepared substrate must be completely sealed utilizing the Standard Primer/SL Priming system. Once these primers are cured, a coat of ATK Primer is installed. Refer to product data sheets for the correct installation procedures for Standard, SL and ATK Primer.

## TESTING PRIMER

Once the ATK Primer is tack-free, it must be tested for proper conductivity.

- ATK 0.1 to 0.5 megohms at 100 volts

If the above readings are not obtained, contact Stonhard's Technical Service Department.

## STATIC CONTROL PROPERTIES

Stonlux AT has been specifically designed to comply with the ANSI/ESD S20.20 specification for the protection of electrical and electronic parts, assemblies and equipment.

**Surface Resistance** ..... <1.0 megohms\*  
(ESD-S7.1)

**Body Voltage Generation** ..... <100 volts\*\*  
(ESD STM97.2)

\* In conjunction with ATK Primer

\*\* Body Voltage Generation is not solely a function of flooring conductivity but is a combination of many factors, including footwear and environmental conditions. Your specific environment and choice of footwear may yield slightly different results.

Electrostatic Discharge (ESD) flooring has a variety of applications from microchip manufacturing to military ordinance. Therefore, each facility may have unique resistance requirements based on their individual ESD programs. It is important to identify the resistance requirements and test method used for each project prior to installing any ESD flooring

## ELECTRICAL TESTING

Once the ATK Primer layer is tack-free, it must be tested for proper conductivity. Point-to-point and point-to-ground readings should be taken and all values should fall below  $5.0 \times 10^5$  ohms( $\Omega$ ).

The floor must also be tested after the application of Stonlux AT. Once the Stonlux AT is tack-free, point-to-point and point-to-ground readings should be taken. All values must fall below  $1.0 \times 10^6$  ohms( $\Omega$ ).

**Note:** Stonhard tests all floors in accordance with the ESD S7.1 test method. Various other ESD standards and test methods are available and they each have their own unique parameters. Please contact the Stonhard's technical service department if you wish to use a different test method.

## MIXING

1. Using a drill and a 2 to 5 gallon Jiffy mixer, premix the part B until the material looks uniform.
2. Empty the entire contents of one pail of Part B (liquid) and one foil bag of Part A (liquid) into a mixing pail.
3. Place the mixing pail on a JB Blender and activate the timer to start the 110 second blending cycle.
4. When the blender stops, reactivate the timer and slowly pour the entire contents of one bag of the Part C (aggregate) into the rotating pail. Allow the contents to mix for the complete 110 second cycle.
5. Just prior to pouring, mix the material with a drill and a 2 to 5 gallon Jiffy Mixer for 30 seconds.

## POT LIFE

After mixing, Stonlux AT will have a working time of approximately 30 minutes at 70°F/21°C. The working time will vary depending upon temperature.

## APPLYING

1. Pour the mixed Stonlux AT onto the floor in a bead.
2. Distribute the material using the appropriate notched trowel or rake pertaining to the desired finished thickness.
3. Roll with a spiked roller.

For further details regarding mixing or applying of Stonlux AT, refer to the Stonlux AT Direction Sheet.

## ELECTRICAL TESTING

The floor must be tested after each application of Stonlux AT mortar. Once the Stonlux AT is tack-free, point-to-point and point-to-ground readings should be taken. All values must fall below  $1.0 \times 10^6$  ohms( $\Omega$ ).

**Note:** Stonhard tests all floors in accordance with the ESD S7.1 test method. Various other ESD standards and test methods are available and they each have their own unique parameters. Please contact the Stonhard's technical service department if you wish to use a different test method.

## RECOMMENDATIONS

- DO NOT attempt to install the material if the temperature of the Stonlux AT components is above 85°F/30°C. High temperatures will cause the material to harden more quickly than desired. Conversely, if the temperature of the components is 65°F/18°C or lower, Stonlux AT will not flow and level properly.
- Do not use water or steam in the vicinity of the application. **Moisture can seriously affect the working time and other properties.**
- Application equipment must be cleaned immediately after use with scouring pads and warm, soapy water, or mineral spirits.
- Avoid contact with all liquid Parts A and B as they may cause skin and/or eye irritation. Workmen must wear safety glasses and impervious gloves during application.
- Use only with adequate ventilation.

## NOTES

- Detailed instructions on application and installation can be found in the Stonlux AT Directions.
- 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 Stonlux Chemical Resistance Guide.
- Material Safety Data Sheets for Stonlux AT are available on line 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 our flooring 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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