

SDT™ Static Dissipative Tile

Armstrong™ SDT is part of a complete flooring system designed to control static in most nonexplosive manufacturing and working areas. SDT dissipates static charges away from people and equipment in order to increase personal comfort and safety and help prevent sensitive equipment damage. In addition to static control, SDT offers the practical benefits of VCT, including durability, ease of maintenance and low installed cost.

Post-installation electrical properties can be evaluated by a qualified third party. Contact your Armstrong representative for details.



SDT is styled and constructed for use in light industrial, education and office applications, including computer classrooms and repair labs as well as electronic testing facilities.



51953 pearl white



51950 marble beige



51951 armor gray



51954 sandstone beige



51956 fossil gray



51955 moss green



SDT provides static dissipative protection using a complete 4-part system. These components must be used together to obtain the static dissipative performance requirements.

1. Tile with integral static dissipative elements
2. S-202 static dissipative adhesive
3. Copper grounding strips
4. S-392 static dissipative polish

SDT™ Static Dissipative Tile

Specification Data

Material, Pattern and Colors

A composition of polyvinyl chloride resin, plasticizers, stabilizers, fillers, pigments and antistatic additive. Colors and pattern are dispersed uniformly throughout the thickness of the material. Color pigments are insoluble in water and resistant to cleaning agents and light.

Size (nominal)

12 in. x 12 in. (305 mm x 305 mm)

Gauge (nominal thickness)

1/8 in. (3.2 mm)

Limitations

SDT should **not** be used in the following areas:

- Munitions facilities.
- Facilities containing explosives or explosive materials.
- Areas requiring conductive flooring.
- Hospital operating rooms.
- Heavy industrial and exterior areas.
- Commercial kitchens and commercial food processing areas.
- Where pointed spikes such as golf or track shoes will be used.
- Where the floor will be subjected to unusually concentrated static or dynamic loads.
- Do not install SDT in areas subjected to excessive surface water, such as areas where frequent spills are common. Excessive and/or prolonged exposure to surface water may interfere with the bond of SDT to the subfloor. If a surface spill occurs, it must be contained and removed immediately.

Suitable for Application Over

- Concrete subfloors which are suspended, on grade or below grade.
- Suspended wood subfloor construction with approved wood underlayments, and a minimum of 18 in. (45.7 cm) well-ventilated air space below.
- Radiant-heated subfloors with a maximum surface temperature of 85° F (29° C).

Unsuitable for Application Over

- Existing resilient flooring, ceramic, marble, terrazzo, metal or other nonporous substrates.
 - Subfloors where excessive moisture or alkali is present.
 - Sleeper-constructed wood subfloors, on grade or below grade.
 - Lightweight aggregate concrete subfloors having a density of less than 90 lbs. per cu. ft. (1441 kg/m³) or cellular concrete having a plastic (wet) density less than 100 lbs. per cu. ft. (1602 kg/m³) [94 lbs. per cu. ft. (1506 kg/m³) dry weight], or concrete having a compressive strength of less than 3500 psi (24 MPa). Concrete slabs with heavy static and/or dynamic loads should have higher design strengths and densities calculated to accommodate such loads.
- Concrete curing agents, sealers, hardeners, or parting agents should be removed.**

TECHNICAL DATA

Shipping Weight

63 lbs./carton (28.6 kg) – 45 tiles

Gloss (typical value)

60 degrees specular – approximately 20

Reference Specifications

ASTM F 1066

Class 2 – through pattern

Meets requirements for size, thickness, squareness, indentation, impact, dimensional stability, resistance to chemicals, and resistance to heat.

Static Load Limit

ASTM F 970

75 lbs./sq. in. (5.27 kg/cm²)

NOTE: Floors should be protected from sharp-point loads and heavy static loads. High-heeled traffic [1000 psi (70.3 kg/cm²) or more] may visibly damage wood, resilient and other floor coverings.

Comparative Subjective Property Ratings

Durability – Very Good

Maintainability – Good

Resilience – Good

Subjective ratings (excellent, very good, good, fair) are in relation to other Armstrong® commercial resilient floors. Ratings are not directly related to any one test. They are broadly based on tests and experience of Armstrong Research and Development under varying conditions and circumstances. These ratings should not be used for comparison to ratings used by other manufacturers to rank their own products.

Fire Test Data

ASTM E 648 Flooring Radiant Panel Critical Radiant

Flux – 0.45 watts/cm² or more, Class I

ASTM E 662 Smoke Chamber Specific Optical Smoke

Density – 450 or less

Numerical flammability ratings alone may not define the performance of the product under actual fire conditions. These ratings are provided only for use in the selection of products to meet the specified limits.

Electrical Properties

Installed as a system using the required adhesive, grounding strips and polish, SDT yields the following electrical properties:

Resistance:

ESD -S7.1 and ASTM F-150

Point to point and point to ground: 10⁸ to 10⁹ ohms

Static Generation:

ESD STM 97.2 (flooring in combination with footwear and a person)

at 40% R.H. with ESD shoes: <10 volts

at 12% R.H. with ESD shoes: <100 volts

Static Decay:

Flooring in combination with footwear (ESD shoes)

and a person (5000 volts to zero): 0.5 seconds avg.

Fed. Test 101C, Method 4046 (5000 volts to zero):

<0.5 seconds

INSTALLATION

Job Conditions

Subfloors/underlayments shall be dry, clean, and smooth. They shall be free from paint, varnish, solvents, wax, oil, existing adhesive residue, or other foreign matter.

For more detailed requirements of concrete, wood and metal subfloors, as well as wood and trowelable underlayments, refer to **Armstrong Guaranteed Installation Systems** manual, F-5061. Calcium Chloride Tests for moisture must be conducted. Armstrong offers a guideline of a maximum acceptable moisture emission level of 3.0 lbs. per 1000 sq. ft. per 24 hours. Successful Bond, Moisture Tests and Alkalinity Tests should be completed before starting installation. The allowable alkalinity readings for installing Armstrong flooring are between 5 to 9 on the pH scale.

Temperature shall be maintained at a minimum of 65° F (18° C) and a maximum of 100° F (38° C) for 48 hours prior to installation, during installation and 48 hours after completion. A minimum temperature of 55° F (13° C) shall be maintained thereafter. Condition all flooring materials and adhesives to room temperature at least 48 hours prior to starting installation. Protect all materials from the direct flow of heat from hot-air registers, radiators, or other heating fixtures and appliances.

Procedure

SDT **must** be installed as a system using SDT tile, S-202 SDT Adhesive, copper grounding strips packaged with the adhesive, and S-392 SDT Polish. Detailed instructions may be found in the **Armstrong Guaranteed Installation Systems** manual, F-5061.

CAUTION: The Static Dissipative floor tile and the conductive adhesive contain a small amount of a material called a quaternary ammonium salt. This material may be both a skin and eye irritant for certain individuals. Therefore, direct contact with the adhesive should be avoided. Since the adhesive is water-based, floor mechanics should wash their hands thoroughly with soap and water if skin contact occurs. Likewise, after handling the floor tile, installers should wash their hands in a similar manner.

SDT Tile Removal

Safety glasses are recommended for removal of floor tile; individuals removing tile and/or adhesive should

wear cotton gloves and follow the general practices outlined in the current edition of the Resilient Floor Covering Institute (RFCI) publication **Recommended Work Practices for the Removal of Resilient Floor Coverings**. The tile should be disposed of in accordance with normal procedures for nonasbestos floor tile. If Armstrong SDT (an individual tile, for example) is broken, damaged, or in need of repair and requires replacement, it must be replaced with SDT in order to continue to provide static dissipative properties.

MAINTENANCE

Note: See surface water instructions under "Limitations."

Note: If electrical certification of an installation is required, do not perform any maintenance procedures until after that certification has been completed.

Initial Maintenance Immediately After Installation

- Sweep or vacuum thoroughly.
- Damp mop with a dilute neutral detergent solution such as Armstrong S-485 Floor Cleaner – carefully wiping up black marks and excessive soil.
- Apply a minimum of three coats of Armstrong S-392 floor polish. S-392 IS THE REQUIRED POLISH FOR USE WITH SDT. Other polishes will interfere with the electrical properties and/or the appearance of this flooring.
- Do not wash or scrub the floor for at least four to five days after installation.

Preparation for Commercial Use

For specific, ongoing maintenance procedures see **Armstrong Commercial Resilient Flooring Maintenance Recommendations** booklet, F-8663B.

WARRANTIES

Armstrong warrants its regular (first quality) commercial floors and wall base to be free from manufacturing defects and warrants the installation integrity for five years from the date of purchase, if installed according to the **Armstrong Installation/Maintenance Tip Sheet, F-7903**. This warranty extends only to the original end-user. See **Armstrong Commercial Floor Warranty, F-3349** or visit armstrong.com for warranty details, limitations and exclusions.

WARNING: EXISTING IN-PLACE RESILIENT FLOOR COVERING AND ASPHALTIC ADHESIVES. DO NOT SAND, DRY SWEEP, DRY SCRAPE, DRILL, SAW, BEADBLAST, OR MECHANICALLY CHIP OR PULVERIZE EXISTING RESILIENT FLOORING, BACKING, LINING FELT, ASPHALTIC "CUTBACK" ADHESIVE, OR OTHER ADHESIVE.

These **existing in-place** products may contain **asbestos fibers** and/or **crystalline silica**.

Avoid creating dust. Inhalation of such dust is a cancer and respiratory tract hazard.

Smoking by individuals exposed to asbestos fibers greatly increases the risk of serious bodily harm.

Unless positively certain that the existing in-place product is a non-asbestos-containing material, you must presume it contains asbestos. Regulations may require that the material be tested to determine asbestos content and may govern removal and disposal of material.

See current edition of the Resilient Floor Covering Institute (RFCI) publication **Recommended Work Practices for Removal of Resilient Floor Coverings** for instructions on removing all resilient floor covering structures or contact your retailer or Armstrong World Industries, Inc. 1 800 233 3823.

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