Product Data Sheet

3M[™] Static Control Vinyl Floor Tile 8400 Series

The need for static protection to drain electrostatic charges from personnel and materials is well accepted in many industries. Whether safeguarding sensitive electronic components during manufacture or service or helping control charge in a computer room or munitions factory, a key element of an ESD (electrostatic discharge) prevention program is the use of a properly designed flooring system.

Description

Static Control Vinyl Floor Tile 8400 Series is a long-term solution for helping control ESD. This solid vinyl tile is durable and attractive and can easily be installed by competent flooring contractors. The flexible, resilient tiles are made with only 100% pure vinyl and contain a minimum amount of filler and none of the regrind that can make tile brittle. Both the "conductive" and "static-dissipative" versions are available in a selection of bright, vivid colors. A proprietary manufacturing process completely seals in the conductive carbon medium, resulting in a unique tile that can be easily cleaned and shined to a gloss while maintaining its electrical properties – without the use of an ESD wax or polish.

Key Features

- Lifetime warranty on electrical performance
- 10-year limited warranty on materials
- Long-term ESD protection
- Excellent wear resistance and durability
- Easy, low-cost maintenance
- · Made with 100% pure homogeneous vinyl; no regrind
- Micro-edged for squareness for ease of installation
- Available in either "conductive" or "static-dissipative" resistance range
- Available in 24.25" size for raised access floors, plus 12" and 24" sizes.
- Available in a variety of colors
- May be seamwelded or self-coved







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Available Floor Tile Colors

Static-Dissipative (S.D.): Series 8411 through 8427 Conductive (Cond.): Series 8431 through 8447

Brown 8411 (S.D.) or 8431 (Cond.)

White 8412 (S.D.) or 8432 (Cond.)







Gray

8413 (S.D.) or 8433 (Cond.) 8414 (S.D.) or 8434 (Cond.)

Blue



Green 8415 (S.D.) or 8435 (Cond.)



Reverse Gray

8423 (S.D.) or 8443 (Cond.)



Reverse Blue

8424 (S.D.) or 8444 (Cond.)

Maroon

8416 (S.D.) or 8436 (Cond.)



Black

8417 (S.D.) or 8437 (Cond.)

Reverse Brown 8421 (S.D.) or 8441 (Cond.)



Reverse Green Reverse Black 8427 (S.D.) or 8447 (Cond.) 8425 (S.D.) or 8445 (Cond.)



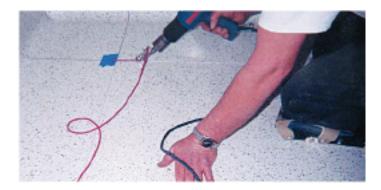
Specifications Mechanical Properties Typical Static-Dissipative Floor Tile (Series 8411-8427) Conductive Floor Tile (Series 8431-8447) Flammability Flame Spread Index Meets Class 1 requirements ASTM E84 Critical Radiant Flux $> 1.1 \text{w/cm}^2$ (ASTM E648) **Physical Specifications** Meets ASTM F1700-13A Abrasion Resistance (ASTM D 3389) Pass Taber H22 wheel **Electrical Properties** Typical **Typical** Static Dissipative Tile (8413-Conductive Tile (8431-8447) 8427) **Electrical Resistance** 1 x 10⁶ to 1 x 10⁹ ohms 2.5 x 10⁴ to 1 x 10⁶ ohms ANSI/ESD STM7.1 and ANSI/ESD STM97.1 Static Generation (Walking Voltage) < 50 volts < 25 volts Testing done per ANSI/ESD STM97.2 Testing done per ANSI/ESD STM97.2 (with 3M[™] Shoe Grounder Assembly 2051 at 12% RH (+/-3% RH at 73 degrees F +/-2 degrees) (With ESD Control Rated Shoes <35 megohms per ANSI/ESD STM9.1 and ANSI/ESD STM97.1) Sizes 0.125 x 12 x 12 in. (3.2 x 305 x 305 mm) 0.125 x 24.25 x 24.25 in. (3.2 x 615 x 615 mm) - for raised access floor panels 0.125 x 24 x 24 in. (3.2 x 610 x 610 mm) - for seamwelded installations

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3M[™] Static Control Vinyl Floor Tile 8400 Series is available in the special 24.5" x 24.5" size used for raised access floor panels.



3M[™] Static Control Vinyl Floor Tile 8400 Series can be self-coved and seamwelded during installation.

3M is a trademark of 3M Company.



Electronics Materials Solutions Division Static Control Products

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Important Notice

All statements, technical information, and recommendations related to 3M's products are based on information believed to be reliable, but the accuracy or completeness is not guaranteed. Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use. Any statements related to the product which are not contained in 3M's current publications, or any contrary statements contained on your purchase order shall have no force or effect unless expressly agreed upon, in writing, by an authorized officer of 3M.

Limited Warranty

All statements, technical information, and recommendations related to 3M's products are based Subject to the provisions of this Limited Warranty, 3M expressly warrants that Static Control Vinyl Floor Tile Series 8400 will be free from defects in material and manufacture for a period of ten (10) years from the date of purchase. 3M warrants that the 3M Product will perform in accordance with test method ESD S7.1 for the lifetime of the Product. This applies to both "Static Dissipative" Tile (surface-to-ground resistance of 1x106 to 1x109 ohms) and "Conductive" Tile (surfaceto- ground resistance of 2.5x104 to 1x106 ohms) subject to the Warranty Exclusions listed below. Must be installed using 3M approved conductive adhesive.

Exclusive Remedy; Limited Liability; Claims Procedure

Any Claims for surface defects or variations in color or pattern must be communicated to 3M in writing prior to the actual installation. If this product is proved defective within the warranty period stated above, the exclusive remedy will be, at 3M's option, to repair or replace the 3M Product or to refund the purchase price of the 3M Product. IN NO EVENT WILL 3M OR ANY SELLER BE RESPONSIBLE OR LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL LOSSES OR DAMAGES UNDER ANY LEGAL THEORY INCLUDING BUT NOT LIMITED TO CONTRACT, NEGLIGENCE OR STRICT LIABILITY. 3M MUST BE NOTIFIED IN WRITING OF ANY DEFECT AND SUCH DEFECTIVE PRODUCT MUST BE RETURNED TO 3M ALONG WITH A PROOF OF PURCHASE. 3M will not accept the return of any product without the prior approval of 3M. If the product is already installed, then 3M must examine and verify the defect.

Warranty Exclusions

(1) There is no warranty for (i) workmanship of installation and (ii) dissatisfaction, problems, or damage due to installation or maintenance, other than as recommended by 3M. (2) Excessive moisture in or below the concrete slab can result in adhesion problems and/or surface defects (blistering or cracking) in any flooring material. This warranty does not include delamination or surface defects due to the presence of alkali or other contaminants in the subfloor or due to hydrostatic pressure or moisture vapor transmission rates greater than 3 pounds per 1000 square feet per 24 hours (ASTM F-1869). (3) There is no warranty for any reduction in the gloss of the tile from use. (4) There is no warranty for damage due to accidents, gouges, scuffs, scratches or indentation. (5) If Buyer's purchase includes goods from another manufacturer, only the warranty given by that particular manufacturer will apply to those specific goods. (6) 3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR **PURPOSE.** The express warranty will not apply to defects or damage due to accidents, neglect, misuse, alterations, operator error, or failure to properly install, maintain, clean or repair the 3M Product. (7) 3M Flooring Products that are sold as "seconds" are sold strictly on an "as is" basis without any warranty. NOTE: No person or representative is allowed to give any other or any additional warranty other than what is stated above unless approved by an officer of 3M.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Desco:

<u>8415</u> <u>8416</u> <u>8417</u> <u>8421</u> <u>8424</u> <u>8427</u> <u>8431</u> <u>8433</u> <u>8435</u> <u>8441</u> <u>8443</u> <u>8444</u> <u>8413</u> <u>8411</u> <u>8412</u> <u>8436-12-MAR</u> <u>8423-</u> 12-GRAY 8434-12-BLU 8425-12-GRN 8445