Delane Dissipative ESD Vinyl

TECHNICAL DATA

PRODUCT DESCRIPTION

Finish & Appearance	Smooth, No Factory Finish
Nominal Dimensions [1]	12” (30.5 cm) x 12” (30.5 cm) x 1/8” (3.2 mm) Tiles 12” (30.5 cm) x 24” (60.9 cm) x 1/8” (3.2 mm) Tiles 24” (60.9 cm) x 24” (60.9 cm) x 1/8” (3.2 mm) Tiles 36” (91.4 cm) x 36” (91.4 cm) x 1/8” (3.2 mm) Tiles
Available Options	24” & 36” Tiles are available Pre-Grooved for Heat Welded applications

ELECTRICAL PERFORMANCE PROPERTIES

ASTM F150 – Electrical Resistance	1 x 10^6 Ω - 1 x 10^9 Ω (1 MΩ - 1,000 MΩ)
ANSI/ESD S20.20 Standard for ESD Control Programs Testing [2]	
ANSI/ESD STM 7.1 – Resistance	Meets < 1 x 10^9 Ω (1,000 MΩ)
ANSI/ESD STM 97.1 – Resistance	Meets < 1 x 10^9 System Resistance of Flooring System & Footwear in Combination with a Person.
ANSI/ESD STM 97.2 – Body Voltage	Meets < 100 Volts Charge Generation of Flooring System & Footwear in Combination with a Person.
Motorola R56, Appendix C.3.3 Flooring	Meets Requirements Between 10^6 and 10^9 Ω tested to ANSI/ESD STM 7.1
FAA-STD-019f, ESD Control Flooring	Meets Requirements Between 10^6 and 10^9 Ω tested to ANSI/ESD STM 7.1
FTMS 101c – Surface Resistivity	Passes; 5,000 v to 0 v
FTMS 101c Method 4046 – Static Decay	< 0.01 Second
AATCC-134 – Electrostatic Propensity	< 20 v with ESD Shoes
Grounding Requirements	One 18” strip needed for every 2,000 sq. ft. of continuous tile installed. Each room smaller than 2,000 sq. ft. will need grounding individually whether connected by a doorway or not.
Difference Between Conductive & Static Dissipative Flooring	The biggest difference between Conductive & Static Dissipative flooring is the range of electrical resistance. Conductive flooring resistance range is between 2.5 x 10^4 & 1 x 10^6. Dissipative flooring resistance range is between 1 x 10^6 & 1 x 10^9. What does this mean, Conductive flooring has lower or less resistance and a more direct path to ground. Static Dissipative flooring has higher or more resistance with a slower path to ground. Both perform the same function, but the rate of removing the Static Electricity is different.
When Should Conductive Tile Be Used	Conductive flooring should be used for areas where high tech components are exposed and subject to ESD events, such as chip manufacturing, wafer fabricating, semiconductors, assembly, testing, production areas, packaging, pharmaceuticals, etc. Conductive flooring should also be used in any explosive arenas, such as ammunition and firework manufacturing.
When Should Dissipative Tile Be Used	Dissipative flooring should be used for areas where high tech components are not exposed but contained within assemblies, such as computer rooms, classrooms, training areas, offices, switching stations, dispatch operations, 911 call centers, etc.

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PRODUCT PERFORMANCE PROPERTIES

ASTM F1700 – Solid Vinyl Tile	Class I, Type A
ASTM E648 (NFPA 253) – Critical Radiant Flux	Class I, ≥ 0.45 W/cm^2
ASTM E662 (NFPA 258) – Smoke Density	Passes, ≤ 450
ASTM D2047 – Static Coefficient of Friction [3]	≥ 0.50
ASTM F970 – Static Load Resistance [4]	Passes, < 0.005” Indentation @ 250 psi Passes, < 0.005” Indentation @ 2,500 psi Modified
ASTM F2753 – Rolling Load Limit [5]	≤ 500 lbs./in^2
ASTM F925 – Chemical Resistance [6]	Excellent, Additional Chemical List available via chart
ASTM F1914 – Residual Indentation	Excellent, ≤ 8% after 60-minute recovery
ASTM F2199 – Dimensional Stability	Excellent, ≤ 0.020” per linear foot
ASTM F137 – Flexibility	Excellent, 1” Mandrel with No Crack or Break
ASTM F1514 – Heat Stability	ΔE ≤ 8
ASTM F1515 – Light Stability	ΔE ≤ 8

PRODUCT INSTALLATION & WARRANTY INFORMATION

Lot Controlled	Yes
Suitable for In Floor Radiant Heat	Yes
Heat Weldable / Required	Yes / Optional Pre-Grooved HW Tiles must be Heat Welded
Indoor / Outdoor Suitability	Indoor Use Only
Service & Storage Temperature Range [7]	60° - 85° F
Required Components for Installation	ESD Copper Grounding Strips
Required Adhesives [8]	Excelsior PSD-805 Modified Pressure Sensitive ESD Adhesive Excelsior USD-810 Urethane Two-Part ESD Adhesive
Product Warranty [9]	10 Year Limited Commercial Warranty Lifetime Limited Electrical Resistance Warranty

ATTRIBUTES, CERTIFICATIONS, & REGULATORY INFORMATION

- Manufactured in Tuscumbia, Alabama
- Health Product Declaration (HPD) Available
- Environmental Product Declaration (EPD) Available
- Contributes to LEED v4/4.1 Requirements
- Achieved NSF/ANSI 332 Level 1 Certification
- Achieved FloorScore Certification
- Meets California Department of Public Health V1.2 (CA Section 01350) requirements
- Meets Collaborative for High Performance Schools (CHPS) requirements
- Does Not Contain Recycled Materials
- Qualifies for American Made Products Acts and/or Requirements

SUPPORT & ADDITIONAL DOCUMENTATION

Product Support Phone & Email	(800) 633 – 3151 / info@flexcofloors.com
Technical Support Phone & Email	(844) 393 – 4044 / solutions@rhctechnical.com
Product Technical Documentation	www.flexcofloors.com
Associated or Related Documentation	PSD-805 Modified Pressure Sensitive ESD Adhesive Technical Data USD-810 Urethane Enhanced Two-Part ESD Adhesive Technical Data ESD Copper Grounding Strip Technical Data Installation Care & Maintenance Warranty

[1] Nominal Dimensions are the marketed dimensions of the product, tolerances are allowed in the manufacturing process and our tolerance range is what is allowed by the ASTM documentation overseeing the product construction.

[2] ANSI/ESD S20.20 Standard for ESD Control Programs is a process document, not a specification. Flooring alone does not meet S20.20; it meets recommended parameters derived from standard 3 standard test methods referenced in S20.20. Flooring is a necessary part of the bigger picture when complying with S20.20 and that picture includes flooring, people, ground connections and controlled footwear.

[3] ADA Standards for Accessible Design states the floor surface shall be stable, firm and slip resistant. Our test results utilize the James Machine as described in ASTM D2047 and as described in UL410 for floor covering materials (FCM) utilizing a leather foot under dry conditions. Maintenance processes and commonly utilized site applied finishes, polishes, and other sealers to maintain resilient flooring products will change the walking surface and ultimately the Static Coefficient of Friction.

[4] ASTM F970 testing at loads above 250 psi is outside the scope of the test method and is considered modified. Modification to the testing process for us is the additional load utilizing the same foot as described in the test method by ASTM. Since testing is conducted on flooring product alone, our stated results do not take into consideration chosen adhesive, any utilized underlayments and/or substrates or subfloors. These results should not be construed as an indicator of installed flooring performance.

[5] ASTM F2753 testing at loads of 500 lbs. of force on each wheel after acclimation to laboratory conditions. The Hil-Rom Gurney wheel is utilized for 1,000 cycles and then examined for indentation, seam condition, tearing, or visible issues. Wheels shall not be metal or hard plastic, and the shape of the wheels must be flat with rounded edges and manufactured with a shore hardness when tested as Type A of ≤ 90.

[6] ASTM F925 testing is utilized to ensure flooring materials will stand up to certain household standard chemistries. Additional chemical resistance testing performed using this test method is for informational and guidance purposes only. Proper maintenance will influence chemical resistance, but the best defense against a negative effect is to clean the drop/spill from the flooring surface immediately.

[7] See installation documents for full installation details regarding approved substrates, job site conditions and acclimation procedures.

[8] Recommended adhesives listed are recommended to be used to obtain the full listed system warranty that includes a bond performance warranty. Material installed with adhesives other than those listed here or an approved option in writing will only have a product manufacturing and wear warranty, no performance or bond warranty.

[9] See product warranty for full details regarding limitations and warranty coverage.

The contents contained within this Technical Data Sheet (TDS) may be utilized or copied into another projected related document, but this original document will remain in effect at the time of product installation, this TDS shall not be supplemented or replaced by the resulting project documentation. **Any alterations to the wording or requirements contained in or derived from this document shall void all related warranties.**

See installation information and documents for full installation details regarding substrates, job site conditions, & acclimation procedures. The intent of this document is to provide technical and performance properties of the mentioned adhesive as well as define the intended method of installation for the products in which the adhesive is approved for use. Any installation guidelines are to be considered as a starting point at a minimum for a successful installation. We rely on the expertise and professionals that are installing the products to adjust based on site conditions. Anything that appears to be a link, is and leads to additional information if necessary or provides a means of contact in the event there are any additional questions. Prior to acceptance of this document refer to the product website to confirm that you have the most current revision.

These products are intended for installation by professionals, prior to use the user must determine the suitability of our products for the intended use, and the user alone assumes all risks and liability.