

Static Control Workstation Solutions

Dissipative Vinyl Three-Layer Mats and Runners

3MTM Mats and Runners 8200 Series are soft table and floor mats with a unique three-layer construction. The top layer is durable static dissipative vinyl, which has sufficiently low resistance to discharge static-laden conductors, yet will prevent the shorting of pins on the backs of printed circuit boards laid on the mat. The middle layer is a highly conductive scrim that provides the main discharge path to ground, and the bottom layer is static-dissipative foam, providing a durable nonskid cushion. Nonstandard sizes are available on a custom order basis.

Floor Mats 8200 Series

Includes one 15 ft. (4,6 m) $3M^{TM}$ Ground Cord 3040 and two $3M^{TM}$ Snap Fasteners 3050 (installed).

Floor Runners 8250 Series

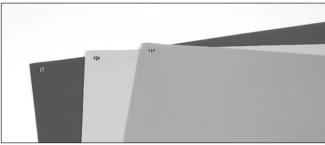
Includes two 15 ft. (4,6 m) 3M Ground Cords 3040 and two 3M Snap Fasteners 3050 to be installed by customer.

Table Mats 8210 Series

Includes two 3M Snap Fasteners 3050 (installed) and one 3MTM Wrist Strap Grounding System 3048. Wrist Straps must be ordered separately.

Table Runners 8260 Series

Includes two 15 ft. (4,6 m) 3M Ground Cords 3040 and two 3M Snap Fasteners 3050 to be installed by user.



Mats and Runners 8200 Series

Properties

Property	Typical Value
Material	Top and Bottom Layers - Vinyl
Thickness	0.138 in. (3,5 mm)
Hardness	40 - 50 Shore A
*Resistance (Surface to Ground) (Surface to Surface)	$1 \times 10^{7} \Omega$ $4 \times 10^{7} \Omega$

 ^{*} Tested per ESD Association Standard S4.1 at 72°F, 50% RH using 3M Test Kit 701 for Static Control Surfaces (Megohmmeter)

Note: Non-standard sizes available on custom order basis up to 50 ft. maximum length



Cleaner 8001 for Static Control Mats	pg. 24, 30
Shoe Straps	pg. 6-7
Wrist Straps	pg. 2-5, 16-17

Product No.	Description	Size, ft. (m)	
8201	Floor Mat, Brown.	4 x 6 (1,2 x 1,8))
8203	Floor Mat, Gray.	4 x 6 (1,2 x 1,8))
8204	Floor Mat, Blue.	4 x 6 (1,2 x 1,8))
8211	Table Mat, Brown.	2 x 4 (0,6 x 1,2))
8213	Table Mat, Gray.	2 x 4 (0,6 x 1,2))
8214	Table Mat, Blue.	2 x 4 (0,6 x 1,2))
8251	Floor Runner, Brown.	4 x 24 (1,2 x 7,2))
8253	Floor Runner, Gray.	4 x 24 (1,2 x 7,2))
8254	Floor Runner, Blue.	4 x 24 (1,2 x 7,2))
8261	Table Runner, Brown.	2 x 24 (0,6 x 7,2))
8263	Table Runner, Gray.	2 x 24 (0,6 x 7,2))
8264	Table Runner, Blue.	2 x 24 (0,6 x 7,2))
8281	Floor Runner, Brown.	2 x 40 (0,6 x 12,2))
8283	Floor Runner, Gray.	2 x 40 (0,6 x 12,2))
8284	Floor Runner, Blue.	2 x 40 (0,6 x 12,2))
8291	Floor Runner, Brown.	4 x 40 (1,2 x 12,2))
8293	Floor Runner, Gray.	4 x 40 (1,2 x 12,2))
8294	Floor Runner, Blue.	4 x 40 (1,2 x 12,2))



Static Control Workstation Solutions

Anti-Fatigue Mats

3MTM Anti-Fatigue Matting 9500 Series may be the simplest and most effective way to reduce standing worker fatigue while providing ideal protection against static electricity problems. Physical fatigue is reduced by encouraging subtle movement of leg and calf muscles, which in turn promotes blood flow back to the heart. The use of 3M Anti-Fatigue Mats/Runners 9500 is designed to result in more comfortable, more productive workers.

The anti-fatigue mats/runners have excellent static-control properties. They are carbon loaded rubber with the carbon being mixed evenly throughout the material to ensure the edges are as conductive as the center. Resistance from the surface of the mat to the grounding point – the truest measure of the mat's static draining capability – is typically in the range of 2.5×10^4 to 1×10^7 ohms (measured according to ESD Standard 7.1).

The rubber surface is bonded to a highly resilient insulative sponge base. This construction provides outstanding cushioning, and reduces stress on the spine and lower back muscles, which reduces worker fatigue.

3M mats/runners 9500 Series can be cleaned by all common commercial detergents (3M Cleaner 8001 for Static Control Mats), and may be either scrubbed with a brush or damp mopped. Let dry before returning to service.



Anti-Fatigue Mat 9500

Values

Features	Advantages	Benefits	
Rubber surface bonded to highly resilient sponge base.	Exceptional comfort Long lasting Easy to clean	Reduce worker fatigue; May improve productivity; durable and low maintenance	
Carbon filled (conductive)	Excellent static dissipation	Reliable grounding	
Heavy	Will stay in place	Customer acceptance	
Smooth surface maintenance	Easy to clean	Low cost	
Custom sizes available	Better meet application needs	User acceptance	

Product No.	Description	Size, ft. (m)
9500	Static Control Anti-Fatigue Mat (includes one installed ground snap and one 15' ground cord)	3 x 5 (0,9 x 1,5)
9510	Static Control Anti-Fatigue Mat (includes one ground snap installed every 15 linear feet with appropriate number of ground cords)	3 x up to 75 (0,9 x up to 22,9)

Note: Anti-Fatigue Mat 9510 non-standard sizes available on custom order basis.

Properties

Property	Test Method	Typical Value	
Material	Top Layer	Carbon Filled Styrene	
	Bottom Layer	- 100% Natural Rubb	er ————
Electrical	ESD-S7.1	2.5x10 ⁴ to 1x10 ⁷ ohn	
		(surface to ground re	sistance)
Thickness	Caliper	0.5 in.	
Flammability	ASTM D 2859	Non-burning	
Tensile Strength	3M	630 PSI	
Durometer	Shore A	82	
Coefficient of	ASTM 2047	Surpasses ADA and OSH	A Recommendations
Friction			
Temperature	3M	5 to 40°C	
Compression	ASTM 1667	Recovery after 30 min	
Strength		Recovery after 24 hor	urs = 69%
(Resiliency)			
Chemical	ASTM 1056	3.0 - 5.0 PSI	
Deflection			
Compression Set	ASTM 1056	Recovery after 24 ho	urs = 77%
Chemical	ASTM D 543	Acetone	No visual effect
		Detergent	No visual effect
		Heptane	No visual effect
		Gasoline	No visual effect
		Isopropanol	No visual effect
		Mineral Oil	No visual effect
		Mineral Spirits	No visual effect
		Potassium	No visual effect
		Hydroxide	
		Sodium Hydroxide	No visual effect
		Trichloroethylene	No visual effect
		Xylene	No visual effect







Anti-Fatigue Mat ground snap

Static Control Workstation Solutions



Workstation Grounding Kits

Each 3MTM Workstation Grounding Kit provides the basic items needed to create a static-safe work environment. They include a floor mat, table mat, adjustable wrist strap with grounding cord and accessories to properly connect all of the kit components.

Each kit contains:

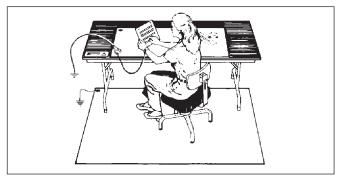
- Table Mat; 2 ft. x 4 ft. (0,6 m x 1,2 m)
- Floor Mat; 4 ft. x 6 ft. (1,2 m x 1,8 m)
- 3MTM Ground Cord 3040; 15 ft. (4,6 m)
- 3MTM Grounding System 3048 for Wrist Strap/ Table Mat
- 3MTM Adjustable Wrist Strap 2214

Workstation Grounding Kit 8020 Series

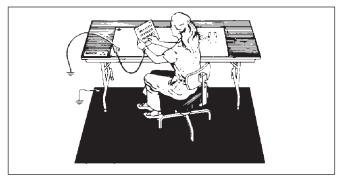
The 3M Workstation Grounding Kits 8020 provide the complete static protection offered by all the 3M kits. Both the floor and table mats (8200) are made from our soft three-layer static dissipative material.

Workstation Grounding Kit 8030 Series

These kits contain two different types of static control mats. The table mat is made of the soft three-layered, static dissipative material 8200, while the floor mat (1864) is of the more rigid, conductive material.



8021-8024



8031-8034

Note: Shelf life of products made with conductive resin is five years. Variations in storage conditions such as temperature fluctuation, exposure to sunlight or high humidity may reduce the shelf life. Not recommended for use with chairs that have wheels.

Product No.	Description	
8021	Brown Table and Floor Mat, 3-layer construction.	
8023	Gray Table and Floor Mat, 3-layer construction.	
8024	Blue Table and Floor Mat, 3-layer construction.	
8031	Brown 3-layer Table Mat, Black Velostat Floor Mat.	
8033	Gray 3-layer Table Mat, Black Velostat Floor Mat.	
8034	Blue 3-layer Table Mat, Black Velostat Floor Mat.	



Test Kit 701	pg. 27, 52
Wrist Strap Workstation Monitor 724	pg. 12



	3M™ Test	Equipment	Measures	Application
	701	Test Kit for Static Control Surfaces (Certified only)	Resistance: surface-to-ground and surface-to-surface	Velostat™ Mats and Sheets 1800 Series Workstation Kits 8000 Series Mats 8200 Series Laminate 8300 Series Floor Tile 8400 Series Field Service Kits 8500 Series Rubber Mats 8800 Series Epoxy Flooring 8900 Series Anti-Fatigue Mats 9500 Series Other static-dissipative surfaces and surface treatments
	711	Charge Analyzer (Certified only)	Charge retention/drainage Charge generation/drainage	Ionized Air Blowers 960/963 Ionized Air Gun 980 Other benchtop air ionizers Static Shielding Bags Velostat Mats and Sheets 1800 Series Mats 8200 Series Other mats Floor Tile 8400 Series Rubber Mats 8800 Series ESD Epoxy Flooring 8900 Series Anti-Fatigue Mats 9500 Series Wrist Straps 2200 Series Other wrist straps and shoe straps Tapes
Model 718	718	Static Sensor (Non Certified and Certified versions available)	Static Voltages	Objects and Surfaces
Maria Trax Responses to the Control of the Control	718A	Air Ionizer Test Kit	Ion balance Static decay	Air Ionizers
SM 724 Work Station Monitor	724	Continuous Workstation Monitor	Resistance	Velostat™ Mats and Sheets 1800 Series Mats 8200 Series Hard Laminate 8300 Series Mats 8800 Series Dual Conductor Wrist Straps



Test Kit 701

The 3MTM Test Kit 701 contains a lightweight, user-friendly megohmmeter plus all of the components needed to make testing mats and other surfaces simple and accurate. All of the items are packaged in a foam-lined carrying case.

The kit meets the intent of ANSI/ESD Standard 4.1, "Worksurfaces - Resistive Characterization." ANSI/ESD Standard 7.1, "Floor Materials - Resistive Characterization of Materials," and MIL-PRF-87893, "Workstation, Electrostatic Discharge (ESD) Control," for auditing purposes. The meter has separate scales and test settings for measuring surface-toground and surface-to-surface resistance at two prescribed test voltages (10V and 100V), and system continuity. The easy to read scales are both color-coded and numbered.



Test Kit 701





Product Referral Generator

ŀ	-loor Mats/Runners 8200 Seriesp	g.	18
[Dissipative Rubber Mats/Runners 8800 Seriespg	g.	19
/	Anti-Fatigue Mats/Runners 9500 Seriespg	g.	22
,	Static Conductive Floor Tile 8400 Seriespg	g.	66-67
I	Epoxy Flooring 8900 ESDpg	g.	68-69

Product No.	Description	
701	Test Kit for Static Control Surfaces. Also available in Certified.	
	Kit contains: 1 Megohmmeter 12 oz. (340 g) 1.8 x 3.3 x 4.6 in. (4,57 x 8,38 x 11,68 cm) 2 Test Weights 5 lbs. (2,27 kg) each 2 Test Leads, 10 ft. (3 m) each 1 Insulated Bulldog Clip 1 Alligator Clip 1 Continuity Test Plate 2 Batteries (22.5V and 1.5V) 1 Operator's Manual 1 Molded Carrying Case	
701-L	Test Leads	
701-M	Megohmmeter only	
701-W	5 lb. Test Weight	

Test Kit Properties

	Properties	T
Product	Item	Typical Properties
Kit	Weight:	14 pounds (6,35 kg)
	Case Dimensions:	5.125" x 10" x 13.5" (13,02 cm x 25,4 cm x 34,29 cm)
	Case Material:	Blow-molded, high density polyethylene with foam inserts
	Case Color:	Gray
Meter	Weight:	12 ounces (0,34 kg)
	Dimensions:	1.8" x 3.3" x 4.6" (4,57 cm x 8,38 cm x 11,68 cm)
	Resistance Ranges:	
	Continuity Test Mode	0 – 10M Ω (internal R=500 K Ω)
	10V Surface Test Mode	10° – 10¹¹ Ω (internal R=2 M Ω)
	100V Surface Test Mode	10 $^{\scriptscriptstyle 5}$ – 10 $^{\scriptscriptstyle 11}$ Ω (internal R=2 M Ω)
Weights	2 Test Weights:	5 pounds (2,27 kg) each
	Dimensions:	Diameter – 2.5 in. (6,35 cm) Height – 5.06 in. (12,85 cm); includes handle and pad
	Pad Material:	Conductive silicone rubber
	Pad Dimensions:	Diameter – 2.5 in. (6,35 cm) Thickness – 0.25 in. (0,64 cm)
Leads	Length:	10 feet (3,05 m)
	Wire Size:	18 gauge
	Insulation:	Silicone rubber
	Diameter:	0.125" (0,32 cm)
Power Supply	Batteries (2):	22.5 volt (Eveready #505 or equivalent) and 1.5 volt (AA).