

# STATIC CONTROL



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# LEGGGE

System of Static Control Products

## Walter G. LEGGE Co., Inc.

**LEGGE SYSTEMS** became involved with static electricity control shortly after establishing an extensive line of maintenance and cleaning products in the 1930s. A demand for static control products, mainly in hospital operating rooms as well as in the defense and military establishments, led to the development and patenting of a complete line of body grounding devices, conductive and static dissipative coatings and later, static dissipative floor finishes and polishes. **LEGGE** was well positioned to apply vast knowledge of floor care to develop and apply products for static control. **LEGGE SYSTEMS** became one of the first manufacturers to introduce an extensive line of static control products and today that tradition continues.

As new products were developed our services were expanded to include other industries. Aerospace and electronic as well as communication and computer industries benefit from a well thought out and applied static control program. **The LEGGE Co.** designs and manufactures an extensive line of body grounding devices. At **LEGGE**, we also have the capability to alter existing models or design completely new models to customer specifications in our manufacturing facility.

**The Walter G. LEGGE Co., Inc.** is a pioneer in the development of an extensive line of water based, conductive and static dissipative coatings. These coatings have permanent conductivity with various standard colors, including a metallic stainless steel coating. All of the coatings **LEGGE** manufactures are available with a variety of conductivity to provide the industry with unlimited choices when conforming to various industry specifications.

Our corporate offices are located in the beautiful Hudson River Valley of Westchester County, New York — 40 miles north of New York City. Manufacturing, marketing, research and product development along with personalized customer relations offer the maximum in customer service and professionalism. **The Walter G. LEGGE Company** offers immediate, direct, customer service for applications and technical assistance by toll-free telephone, web site, fax or e-mail. With distribution points nationwide, our company logo appropriately reads...

**“You Always Have Legge to Stand On.”**

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# CONDUCTIVE AND STATIC DISSIPATIVE COATINGS

## SPECIFICATIONS

All conductive and static dissipative coatings are manufactured by the Walter G. LEGGE Co., Inc. They are water based and are within VOC limits.

## ELIMSTAT® LX – Conductive Coating

ITEM #K4093

**ELIMSTAT LX is a water based conductive coating, manufactured with high quality acrylic latex.**

When applied to non-conductive surfaces, such as floors, bench tops, tote boxes, etc., ELIMSTAT LX provides conductivity to dissipate static charges. ELIMSTAT LX, along with appropriate LEGGE personnel body grounding devices, will help you provide a static free environment.

ELIMSTAT LX is extremely cost effective. Cost per square foot is only a small fraction of the cost of conductive vinyl flooring and epoxy. ELIMSTAT LX is easy to apply, maintain and repair. Provides excellent wearability and detergent resistance.

See maintenance instructions on page 5.



All conductive and static dissipative coatings are available in 1 gallon and 5 gallon containers.

## ELIMSTAT® LXU – Conductive Coating

ITEM #K4093

**A water based acrylic, conductive coating reinforced with water-borne urethane.**

ELIMSTAT LXU is specifically designed for high performance use where hardness, chemical and abrasion resistance as well as exceptional adhesion properties are desired. Has excellent UV resistance and may be used as an exterior coating. Good resistance to most chemicals and solvents, with permanent conductivity: 25,000 - 1,000,000 ohms (NFPA Code #99). ELIMSTAT LXU is an excellent choice for difficult applications and offers a high-quality conductive coating for areas where additional adhesion and durability are required. May be rolled, brushed or sprayed. Two 1.5 mil dry film coats recommended for extended wear. Dry to touch in 45 minutes, recoat in 5-6 hours (24 hours if possible).



### ELIMSTAT® LX

Coating Type:	Water-based acrylic coating
Coverage:	300- 400 sq. ft. per gal.
Conductivity:	Meets NFPA Code #99 (#56) Specification of conductive flooring, MIL SPEC DOD-HDBK-263. Meets and supercedes MIL-B81705C for static decay
Resistance:	25,000 - 1,000,000 ohms. Conductivity may be adjusted to customer specifications
Colors:	Maroon, green, grey, black
Vehicle Type:	Pure water-borne acrylic resin
Pigment Type:	Lead free, iron oxide, titanium dioxide and extenders
Flash Point:	None
Dry Film Thickness and Theoretical Coverage:	Up to 400 sq. ft. per gallon at 1.5 mils dry and film thickness
Viscosity:	1000 - 1500 cps
Avg. Drying Time:	@75° F and 50% R.H.: 1 hour to the touch first coat, re-coat after 3- 4 hours
Theoretical Solids By Weight:	33- 36%
pH:	8.3
Weight:	8.8 lbs. per gal.

### ELIMSTAT® LXU

Coating Type:	Water-based acrylic-urethane reinforced coating
Coverage:	300- 400 sq. ft. per gal.
Conductivity:	Meets NFPA Code #99 (#56) Specification of conductive flooring, MIL SPEC DOD-HDBK-263. Meets and supercedes MIL-B81705C for static decay
Resistance:	25,000 - 1,000,000 ohms
Colors:	Maroon, green, grey, black
Vehicle Type:	water-borne acrylic resin reinforced with urethane
Pigment Type:	Lead free, iron oxide, titanium dioxide and extenders
Flash Point:	None
Dry Film Thickness:	1.5 mils
Viscosity:	1200 - 1500 CPS
Solids:	35 - 40%
pH:	8.3
Weight:	8.8 lbs. per gal.

## EQUIPMENT RECOMMENDATION

### CONVENTIONAL SPRAY

DeVilbiss MBC-510 Spray Gun "E", fluid tip and needle and #704, 765 or 78 Air Cap

### AIRLESS SPRAY

DeVilbiss JCA-5026 spray gun and a spray cap or suitable orifice diameter 0.020-0.025

### MODEL LA-1 FLOOR CONDUCTIVITY TEST

Walter G. LEGGE Co. Used in the testing of floors to comply with NFPA Code #99

### LEGGE PERSONNEL GROUNDING DEVICES

Full line of wristats, legstats, conductive shoes, boots and static dissipative shoes

## Related Items in Catalog

Model #262 Portable Surface Resistivity, or equivalent Meter used in the testing of static dissipative surfaces.

LEGGE Personnel Grounding Devices: Full line of wristats, legstats, conductive shoes, boots, and static dissipative shoes.

## SPECIFICATIONS

### ELIMSTAT® SD

Coating Type:	Water-based acrylic coating
Coverage:	300 - 450 sq. ft. per gal.
Conductivity:	Static dissipative coating for the electronics industry requirements. Meets and exceeds MIL-B81705B for static decay
Resistance:	10 <sup>7</sup> - 10 <sup>9</sup> ohms/sq. in.
Colors:	White, green, grey, black, red, blue, tan, yellow
Vehicle Type:	Pure water-borne acrylic resin
Pigment Type:	Lead free, iron oxide, titanium dioxide and extenders
Flash Point:	None
Dry Film Thickness:	1.5 mils per coat
Theoretical Solids by Weight:	33 - 36%
Viscosity:	1000 - 1500 CPS
Avg. Drying Time:	@75° F and 50% R.H.: 1 hr to the touch first coat, re-coat after 3-4 hours
pH:	8.3
Weight:	8.9 lbs. per gal.

### ELIMSTAT® SDSC 549411

Composition:	Pure acrylic latex
Finish:	Flat
Avg. Drying Time:	45 min. to touch @ 75° F, 50% relative humidity
Reducer:	1/2 pint water/gal.
Application Conditions:	up to 85% RH, 50 - 100° F
Substrate (surface) Temp.:	above 500 F
Total Solids:	58 - 63% (% non-volatile by weight)
Weight per Gallon:	12.4 - 13.0 lbs
pH:	8.5 - 9.0
Viscosity:	5750 - 6050 CPS @ 25° C, Brookfield Viscometer with spindle #3 at 20 rpm
Storage Temp. (indoors):	50 - 80° F
Shelf Life:	6 months at recommended storage conditions
Surface Resistance:	10 <sup>8</sup> ohms/in <sup>2</sup> - one coat 10 <sup>7</sup> ohms/in <sup>2</sup> - two coats

### ELIMSTAT® SS-SD ELIMSTAT® SS-CD

Type:	Urethane-based stainless steel coating
Viscosity:	300 - 400 cps Brookfield #3 Spindle @ 50 rpm
Coverage:	300 sq. ft. per gal.
Total Solids:	33 - 36%
pH:	9.00
Weight per Gallon:	8.62
Vehicle Type:	Water-borne urethane and stainless steel
Flash point F:	No flash Point
Resistance:	SS-SD: 10 <sup>7</sup> - 10 <sup>9</sup> ohms SS-CD: 500,000 ohms

# CONDUCTIVE AND STATIC DISSIPATIVE COATINGS

These coatings are formulated with a new development in conductive and static dissipative coatings with permanent conductivity:

- All formulations based on highly advanced coating technology of metalized components
- Coatings do not contain carbon black
- Permanent conductivity; insensitive to humidity
- The readings are easily controlled and formulated within the desired range.

## ELIMSTAT® SD – Static Dissipative Coating

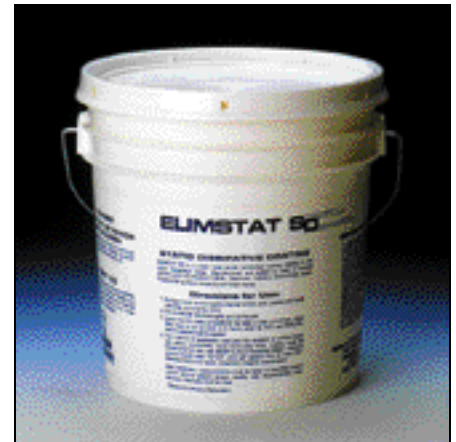
ITEM #K4096

Standard colors: Black, White, Blue, Grey, Green



ELIMSTAT SD is a water-based static dissipative coating, manufactured with high quality acrylic latex. ELIMSTAT SD provides permanent static dissipation to a variety of surfaces and areas. The applications are limitless, but some include — floors, walls, ceilings, printed circuit boards, containers, plastic surfaces, etc. — anywhere static dissipation is desired. When used with LEGGE grounding devices, ELIMSTAT SD provides a static free work environment. The coating may be applied with roller, brush or sprayer. Surfaces should be clean and dry. Two coats minimum are required, 3-4 hours is the normal drying time between coats.

See maintenance instructions on page 5.



## ELIMSTAT® SDSC 549411 – Static Dissipative Coating

ITEM #K4096-SDSC549411 Available in White



ELIMSTAT SDSC 549411 is a static dissipative, **super reflective, white**, water-based acrylic coating designed for high performance uses in accordance with aerospace specifications. The product is used to coat Space Launch Vehicles and motors to reduce static electricity build up. LEGGE has worked closely with the aerospace industry to develop and test this coating and it is specified and used extensively by contractors and sub-contractors on rocket motors and assemblies in the aerospace industry.

## ELIMSTAT® SS-SD – Static Dissipative Coating

NEW

ITEM #K4097-SS-SD

Available in Stainless Steel Grey



## ELIMSTAT® SS-CD – Conductive Coating

NEW

ITEM #K4097-SS-CD

Available in Stainless Steel Grey



**Water based urethane, Stainless Steel coating formulated in both conductive and static dissipative ranges.**

ELIMSTAT® SS-SD and SS-CD are the latest additions to the extensive line of static dissipative and conductive coatings manufactured by the Walter G. LEGGE Company, Inc. Utilizing new technology, both coatings were researched and developed by LEGGE SYSTEMS to be the most durable, water based static dissipative and conductive coatings. The coatings feature high reflectance and permanent conductivity to meet both electronic as well as DOD specifications. The best properties associated with Stainless Steel are now available in an easy to apply, water based coating system. ELIMSTAT SS-SD and SS-CD are recommended for all surfaces where high durability and resistance to common chemicals is desired. May also be used for many difficult applications and offers a high quality conductive coating for areas where adhesion is a problem. May be rolled, brushed or sprayed.

## ELIMSTAT® UXM CCP

ITEM #K4095



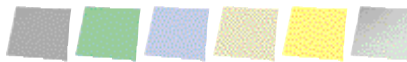
Available in Lt. Grey

### A high solids, water-borne urethane conductive coating with permanent conductivity

ELIMSTAT UXM CCP, conductive coating, is designed for high performance uses where hardness, chemical and abrasion resistance as well as exceptional adhesion properties are desired. ELIMSTAT UXM CCP has excellent UV resistance and can be used as an exterior coating. Outstanding resistance to chemicals and solvents, with permanent conductivity. ELIMSTAT UXM CCP may be used for many difficult applications and offers a high quality conductive coating for areas where adhesion is a problem. May be rolled, brushed or sprayed. Excellent recoatability, clean surface thoroughly with LEGCLEAN, allow to dry thoroughly and reapply ELIMSTAT UXM CCP.

## ELIMSTAT® UXM-60P

ITEM #K4091



Available in Grey, Green, Blue, Tan, Yellow, White

### A high solids, water-borne urethane static dissipative coating with permanent conductivity

ELIMSTAT UXM-60P, static dissipative coating, is designed for high performance uses where hardness, chemical and abrasion resistance as well as exceptional adhesion properties are desired. ELIMSTAT UXM-60P has excellent UV resistance and can be used as an exterior coating. Outstanding resistance to chemicals and solvents, with permanent conductivity ( $10^7 - 10^9$  Ohms per sq. in.). ELIMSTAT UXM-60P may be used for many difficult applications and offers a high quality conductive coating for areas where adhesion is a problem. May be rolled, brushed or sprayed. Excellent recoatability, clean surface thoroughly with LEGCLEAN, allow to dry thoroughly and reapply ELIMSTAT UXM-60P.

## ELIMSTAT® UXM-600

ITEM #K4092



Available in Clear, Black

### A water-borne urethane conductive coating with permanent conductivity

ELIMSTAT UXM-600, is specifically designed for high performance uses. Designed for use where hardness, chemical and abrasion resistance as well as exceptional adhesion properties are desired. ELIMSTAT UXM-600 has excellent UV resistance and can be used as an exterior coating. Outstanding resistance to chemicals and solvents, with permanent conductivity — adjustable to your specifications ( $10^5$  ohms per sq. in. is the standard resistance). ELIMSTAT UXM-600 is an excellent choice for G-10 and many difficult applications and offers a high quality conductive coating for areas where adhesion is a problem. May be rolled, brushed or sprayed. May be baked at temperatures up to 300°F.

### ELIMSTAT® UXM CCP

Composition:	Water-borne urethane, leveling agent, conductive agents
Percent Solid:	44- 46%
Specific Gravity:	1.02
pH:	9.02
Viscosity:	Brookfield #3 Spindle at 50 RPM - 440 CPS
Weight Per Gallon:	8.82 lbs.
Recoatibility:	Excellent
Water Resistance:	Excellent
Freeze/Thaw:	3 cycles
Coverage:	400 sq. ft./gal.
Color:	Grey
Resistivity:	500,000 ohms/in <sup>2</sup> 10 <sup>4</sup> - 10 <sup>6</sup>

### ELIMSTAT® UXM-60P

Composition:	Water-borne urethane, leveling agent, conductive agents
Percent Solid:	44- 46%
Specific Gravity:	1.02
pH:	9.02
Viscosity:	Brookfield #3 Spindle at 50 RPM - 440 CPS
Weight Per Gallon:	8.82 lbs.
Recoatibility:	Excellent
Water Resistance:	Excellent
Freeze/Thaw:	3 cycles
Coverage:	400 sq. ft./gal.
Colors:	Grey, green, blue, tan, yellow, white
Resistivity:	10 <sup>7</sup> -10 <sup>9</sup> ohms/in <sup>2</sup>

### ELIMSTAT® UXM-600

Total Solids:	30% (depending upon conductivity)
pH:	9.0
Weight Per Gallon:	8.5
Flash point F, Pensky:	No flash point
Martens closed cup	
Freeze/Thaw Stability:	Passes 5 cycles
Acid Number on Solids:	30
Colors:	Clear, black
Viscosity:	Black - 560 CPS Clear - 120 CPS
Resistivity:	10 <sup>4</sup> - 10 <sup>5</sup> ohms/in <sup>2</sup> Black: 10 <sup>4</sup> - 10 <sup>6</sup> Clear: 10 <sup>7</sup> - 10 <sup>9</sup>

### Chemical Resistance

Toluene, 1 hour immersion:	No effect
Gasoline, 1 hour immersion:	No effect
Methylethylketone:	No effect
100 double rubs	
Glacial Acetic Acid:	Slight softening, 1 hour spot test recovers
1 N NaOH, 1 hour spot test:	No effect
<u>Cleveland Cabinet Humidity Resistance</u>	
Rusting (ASTM D610):	No effect
Blistering (ASTM D714):	No effect

All are available in quart, 1 gallon and 5 gallon containers.

## SPECIFICATIONS

### STAT-LES® 24% or 18%

Composition:	Metal cross link acrylic copolymer
Solids:	24% or 18%
Density:	8.63 lbs./gal.
Specific Gravity:	@ 60° F - 1.037
Oven Stability:	ANSI/ASTMD 1791-66 (accelerated aging of water emulsion floor polishes) — no change
Coverage:	2000 sq. ft. per gal.
pH:	8.4
Resistivity:	$10^7 - 10^9$ ohms
Conductivity Range:	Static dissipative
Static Delay:	.07 seconds (Mil-B-81705B-5kV charge to 0 kV)

### URE-STAT™

Type:	Metal cross link acrylic copolymer, urethane re-inforced
Solids:	20%
Density:	8.63 pounds/gallon
Specific Gravity:	@ 60° F - 1.037
Drying Time:	@ 40% RH and 70° F 45
Oven Stability:	ANSI/ASTMD 1791-66 (accelerated aging of water emulsion floor polishes) — no change
Coverage:	2000 sq. ft. per gal.
pH:	8.4
Resistivity:	$10^7 - 10^9$ ohms/inch on two coats
Conductivity Range:	Static dissipative
Static Delay:	.07 seconds (Mil-B-81705B-5kV charge to 0 kV)

ESD Floor Finishes and coatings work best when used in a complete system of static control. The use of personnel grounding devices (ie.) Foot Grounders or Wrist Straps is recommended.

## STATIC CONTROL FLOOR CARE PRODUCTS

### STAT-LES® (24% or 18%)

ITEM #K4080 (24%)

ITEM #K4081 (18%)

#### Static Dissipative Floor Finish

Formulated with conductive polymers to both reduce tribo-electric charging and create a static dissipative surface. Use on floors to create a static dissipative surface ( $10^7 - 10^9$  ohms). May also be used to protect static dissipative tiles without affecting readings. Provides excellent gloss to any surface. Metal cross-link, acrylic copolymers provide excellent durability in any interior environment. STAT-LES is easy to apply with a mop and is easily removed with STAT-LES STRIPPER. Maintain your STAT-LES treated floor with the complete STAT-LES SYSTEM for ease of maintenance and longevity.

See the complete STAT-LES SYSTEM on page 7.



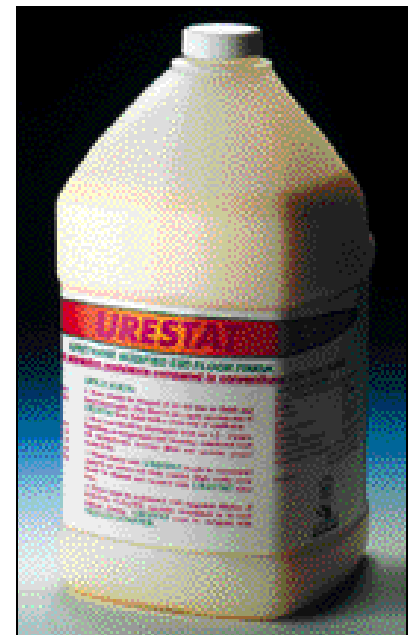
### URE-STAT™

ITEM #K4087

#### Static Dissipative Floor Finish — Reinforced With Water-Based Urethane

Finally an alternative to regular dissipative floor finish. URE-STAT is formulated with a special water based urethane that dramatically increases the life and durability of the finish.

URE-STAT was specifically developed for durability, ease of maintenance and effective ESD properties to ensure long lasting static protection. URE-STAT locks in ESD properties for the life of the finish. Water resistance is dramatically increased. Daily maintenance with the proper LEGGE cleaners will not adversely affect readings.



Both are available in 1 gallon, 5 gallon and 55 gallon containers.

# STATIC CONTROL FLOOR CARE PRODUCTS

## MAINTENANCE PROCEDURES... DID YOU KNOW?

Improper maintenance procedures can be catastrophic to your ESD program. Regular everyday cleaners not specifically manufactured for ESD surfaces can leave a film that will insulate the ESD surface and create a static charge. Most complaints of surfaces not reading in the proper conductivity range can be traced back to improper maintenance. The implementation of a proper ongoing maintenance program is critical to your ESD program. LEGGE offers training for maintenance personnel to help them achieve optimum results.

- Daily Maintenance is accomplished with **STAT-LES CLEANER**, a concentrated, non-ionic, neutral pH detergent designed to clean and retain the natural ESD reading.
- Use at only one to three ounces per gallon of water.
- Damp mop the area and do not rinse. If floor is extremely soiled, re-apply using a clean use dilution of **STAT-LES CLEANER**.
- Use an Auto Scrubber for larger areas.
- Connect to an automatic dilution center for accurate measurements.
- Repair and maintain with **STAT-LES SPRAY BUFF**.
- Remove finish with **STAT-LES STRIPPER**.

- For added protection, durability and ease of maintenance consider applying an **ESD Floor Finish**.
- Daily Maintenance is accomplished with **STAT-LES CLEANER**.
- Heavy duty cleaning is best accomplished with **LEGCLEAN**, an all-purpose, non-insulating cleaner.
- Repairs to high traffic areas and damaged areas is accomplished with a heavy duty cleaning, a thorough drying time and a re-coat in the affected area.

- All ESD surfaces including laminates, matting, bench tops etc need to be cleaned on a regular basis to maintain resistance readings.
- **STAT-LES CLEANER** is recommended for all surfaces
- **CONDUCTIVE CLEANER** is a convenient, ready-to-use, cleaner. It enhances the static discharge capabilities of the surface by leaving behind a slight, non-film forming ESD residual — helping to maintain the surfaces' ESD properties.
- Dirt will insulate these surfaces and must be removed regularly.

- **CONDUCTIVE CLEANER** may be used on non-ESD surface to create a static dissipative surface.
- **STATICO** is a ready to use, topical anti-stat. Creates a longer lasting static dissipative surface. Cleans as it treats the surface.
- **STATICO AE** is recommended for carpets and fabrics — chairs, couches etc.

**APPLICATION TIPS:** Use an automatic proportioning system to get exact dilution every time. A proportioner will save time, labor and money by automatically diluting the proper amount of concentrate.

Consider using an auto-scrubber for maintenance. This machine will put the proper amount of cleaning solution on the floor, agitate and pickup the residual in one pass.

**ESD FLOOR FINISH**

**ESD COATINGS**

**ESD BENCH TOPS,  
CHAIRS, MATTING  
AND LAMINATES**

**NON-ESD SURFACES**

## SPECIFICATIONS

### STAT-LES® CLEANER

Type:	Static Dissipative Cleaner
Percent Active:	16%
pH:	11.01
Color:	Clear
Specific Gravity:	1.008
Weight Per Gallon:	8.4 lbs.
Oven Stability:	ANSI/ASTMD 1791-66 — no change
Flash point:	None
Phosphates:	None
Freeze/Thaw Stability:	3 cycles
Viscosity:	10 CPS
Conductivity:	25% solution — 10 <sup>8</sup> - 10 <sup>9</sup> ohms/in <sup>2</sup>

### STAT-LES® SPRAY BUFF

Neutral, biodegradable, anti-static Spray Buff	
Specific Gravity:	1.008
pH:	7.5 - 7.7
Weight Per Gallon:	8.41 lbs.
Color:	Clear
Oven Stability:	ANSI/ASTMD 1791-66 — no change
Flammability:	None
Freeze/Thaw:	Three cycles
Phosphates:	None

### STAT-LES® STRIPPER

Description:	Non-butyl stripper
Specific Gravity:	.988
pH:	10.7
Viscosity:	16 CPS
Weight Per Gallon:	8.25 lbs
Color:	Clear
Flash Point:	None
Butyl Content:	None
Phosphates:	None
Abrasives:	None
Coverage Per Gallon:	2000 sq. ft.

All are available in 1 gallon,  
5 gallon and 55 gallon containers.

# STATIC CONTROL FLOOR CARE PRODUCTS

## STAT-LES® A COMPLETE FLOOR CARE SYSTEM

Cleaner • Stripper • Spray Buff



### STAT-LES® CLEANER

#### ITEM #K4050

A major concern when implementing a sound ESD program is the cleanliness of the surface. Whether the surface is a work station, matting, floor finish or coating, dirt and soil build up daily and are detrimental to maintaining a static free work area. The reason is that dirt insulates your surface and has the potential to generate static charges.

There are many all purpose non-conductive cleaners available to wash standard flooring and work surfaces. However, many such cleaners leave behind a film that will also insulate a static dissipative or conductive surface.

Through extensive research and over 60 years of experience in the ESD field, LEGGE has developed the solution to cleaning these special surfaces.

STAT-LES CLEANER has been specifically formulated to be used in static sensitive environments. Use on any surface not affected by water, including all types of conductive and static dissipative flooring, matting and tabletops. STAT-LES CLEANER is supplied as a concentrate for economical use. When used as directed, STAT-LES CLEANER will enhance the surface conductivity readings of static dissipative floor finishes and coatings (conductive and static dissipative). No rinsing is required — saving valuable man hours.

### STAT-LES® SPRAY BUFF REJUVENATOR

#### ITEM #K4085

Maintain your STAT-LES treated floors with STAT-LES SPRAY BUFF REJUVENATOR — specifically formulated to keep your floors looking like the original application of STAT-LES FLOOR FINISH. May be applied by spray on or mop on method. If you are not using the complete STAT-LES SYSTEM you may be compromising your static control. Most cleaners adversely affect the resistance readings. LEGGE has developed a complete systems approach — from STRIPPER to CLEANER to SPRAY BUFF — for the most comprehensive care of your static dissipative floors.

### STAT-LES® STRIPPER

#### ITEM # K9021

STAT-LES STRIPPER is formulated for the quick and efficient removal of STAT-LES FLOOR FINISH and other finishes based on regular and metal cross-linked polymers. Will not leave an insulating film on conductive flooring. Non-butyl, odorless and non-flammable formulation.

## STATSHINE™

ITEM #K4070

### Non-slip Cleaner/Conditioner Concentrate for Conductive Flooring

Non-insulating Anti-static Cleaner/Conditioner that cleans, shines and increases slip resistance without build-up or resistance change.

STAT-SHINE is formulated for proper maintenance of conductive and static dissipative floors (i.e.: epoxy, vinyl tiles, etc.). Non film-forming, cleans and protects conductive floors, prevents buildup, improves slip resistance and maintains conductivity. Floors can be machine scrubbed, damp mopped or spray buffed as required with use dilution.

When scrubbing or mopping, solution can be picked up with wet vacuum or mop. No rinsing required. If floors are heavily soiled, repeat procedure.



## ELIMSTAT® SDEC 5012

ITEM #K4082

### Static Dissipative Sealer

Clear, water based, acrylic coating designed to dissipate static charges on various surfaces such as walls, tote boxes, plastics and most other static generating objects.

ELIMSTAT SDEC 5012 will dissipate a 5000 volt charge to OV in less than .01 seconds and is rated at  $10^7 - 10^{10}$  ohms. ELIMSTAT SDEC 5012 is non-flammable and dries in 30-45 minutes depending on humidity and temperature. Two coats are recommend for extended wear. ELIMSTAT SDEC 5012 may be brushed, rolled, sprayed or applied by cloth, cleaned with STAT-LES CLEANER and removed completely with STAT-LES STRIPPER.



### STATSHINE™

Composition:	Acrylic with natural soap cleaner, slip resistant additive
Specific Gravity:	1.012 @60° F
Weight Per Gallon:	8.42 lbs.
pH:	9.0 - 9.2
Total Solids:	8.6 - 9.0 Theoretical
Color:	Opaque
Flash Point:	None
Phosphates:	None
Biodegradable:	Yes
Coverage:	1800 - 2200 sq. ft./gal.

### ELIMSTAT® SDEC 5012

Composition:	Metal cross link acrylic copolymer
Density:	8.63 lbs./gal.
Specific Gravity:	1.035
Oven Stability:	ANSI/ASTM 1791-66 – no visible change
Water Spotting:	ANSI/ASTM 1793 – not affected by water
Coverage:	1800 - 2000 sq. ft. per gal.
pH:	8.3
Resistivity:	$10^8 - 10^{10}$ ohms 0 - 60% Relative humidity and temperature - 70° F
Conductivity Range:	Static dissipative

**Both are available in quart, 1 gallon, 5 gallon and 55 gallon containers.**

**NOTE:** Ordinary general purpose cleaners and non-ESD floor finishes will affect conductivity of floors. **STAT-SHINE** is formulated as a one-step cleaner and conditioner that will not affect conductivity needed to dissipate static buildup. Especially useful on vinyl and composition conductive floors. Decreases tribo-electric charge generation on conductive vinyl floors.

## SPECIFICATIONS

### LEGCLEAN®

Composition:	Anionic, nonionic, surfactant, emulsifiers, wetting agents and rinsing additives
Active:	18% theoretical
pH of Concentrate:	12.5 - 12.6
Specific Gravity:	1.026 @ 60°/60° F
One Gallon Weight:	8.54 lbs.
Color:	Light straw
Viscosity:	Heavy liquid
Flash Point:	None
Phosphates:	None
Ammonium:	None
Solvent Content:	None
Perfume:	Natural citrus

### CONDUCTIVE CLEANER

Description:	Mild, neutral pH cleaner/degreaser
Resistance Reading on Non-Conductive Surface:	$10^9 - 10^{10}$ ohms per sq. in.
Specific Gravity:	1.060
pH:	7.0
Viscosity:	14 CPS
Weight Per Gallon:	8.35 lbs.
Color:	Green
Flash Point:	None
Butyl Content:	None
Phosphates:	None
Abrasives:	None
Coverage Per Qt.:	1500 sq. ft.

### Did you know...

Ordinary all-purpose cleaners leave behind an insulating residue. Legge's ESD maintenance cleaners have been researched and developed to be non-insulating as well as superb cleaners. [See page 6](#) to learn more about maintaining all types of ESD surfaces.

## STATIC CONTROL MAINTENANCE PRODUCTS

### LEGCLEAN®

ITEM #K8070

#### Concentrated

LEGCLEAN is truly an all purpose cleaner that can be used on any and all ESD and non-ESD surfaces — from footwear testers, table and floor mats, walls, floors, etc. LEGCLEAN contains several non-ionic surfactants to quickly remove unwanted dirt. LEGCLEAN has exceptional rinsability. It contains a special rinsing agent which leaves an extremely clean surface and will not leave an insulating film on static control products.

LEGCLEAN is formulated to clean our conductive footwear and wrist strap testers as well as personnel grounding devices. Easily removes stubborn dirt and stains and may be used on any hard surface.



Both are available in 1 gallon, 5 gallon and 55 gallon containers

### CONDUCTIVE CLEANER®

ITEM #K4061

#### Ready To Use Cleaner

Neutral pH CONDUCTIVE CLEANER enhances and maintains conductivity on static dissipative and conductive surfaces. Eliminates static charges on insulative surfaces by providing conductivity in the static dissipative range.

Recommended for use on all conductive and static dissipative surfaces. Treated and cleaned with CONDUCTIVE CLEANER, non-conductive surfaces will read static dissipative ( $10^9 - 10^{10}$  ohms). Excellent cleaning ability with no rinsing required.

Also available in economical concentrate.



## STATICO™

ITEM #K4060

### Ready to Use Topical Antistat · Effective Cleaner · Dust Eliminator

STATICO has been formulated to eliminate static charges and prevent buildup of triboelectric charges by providing surface conductivity on non-conductive surfaces for extended periods of time.

By spraying, dipping, wiping or damp mopping almost any surface can be static free. Because STATICO contains no solvents or abrasives and is non-flammable it can be used on any surface not affected by water. Also available in economical concentrate, ITEM # K4065.

Independent Laboratories have tested STATICO under the most stringent conditions. These tests were conducted at 72° F and 12% relative humidity. STATICO exceeds the standards set forth in MIL- B-81705B, ASTM-D-257-80, Electronic Industry 1S-5.



## STATICO™

Type:	High molecular weight topical antistat, water base
Appearance:	Clear liquid
Flash Point:	None
Explosion Hazard:	None
Specific Gravity:	1.00 @ 60°/60° F
Weight Per Gallon:	8.33 lbs.
Odor:	None
pH:	7.71
Static Decay Rate:	0.01 Sec + 5.0 KV
MIL-B-81705 B at	
Rel. Humidity:	12%, 72°F
Resistivity:	10 <sup>9</sup> - 10 <sup>10</sup> ohms/in <sup>2</sup>
Conductivity:	Static dissipative

## STATICO™ #2

Type:	Topical antistat for food contact surfaces
Appearance:	Clear liquid
Specific Gravity:	0.99
Boiling Point:	212° F
Flash Point:	None
Resistivity:	10 <sup>10</sup> ohms per sq. in.
Decay Rate:	Less than 1 second
Coverage per quart:	4000 per sq. ft.
Conductivity:	Static dissipative

All Statco products are available in 4 oz., 32 oz., 1 gallon, 5 gallon containers.

## STATICO™ #2

ITEM #K4068

### Topical Antistat for Food Contact Areas

STATICO #2 offers both static control and food contact certification.

- Meets FDA Title 21, par. 178.3130 for N, N-Bis (2 hydroxyethyl) dodecanamide, an antistatic agent intended for contact with honey, chocolate, liquid sweeteners, condiments, flavor extracts, and liquid flavor concentrates, grated cheese, light and heavy cream, yogurt and any food type that is a dry solid with the surface containing no free fat or oil.
- Safe and effective for housewares applications: polyethylene and/or polypropylene straws and polystyrene cup.
- Does not affect polyethylene film quality or clarity at recommended use dilution.



## Did you know...

Objects and surfaces which are non-conducting (also referred to as insulators) are also static generators. Topical anti-stats are a simple and effective way of making almost any surface ESD safe. Use anywhere static needs to be controlled. The uses are limitless, but some include; carpets, chairs, workstations, TV and computer screens, clothing etc.

## SPECIFICATIONS

### STATICO™ AE

Type:	Water-based topical antistat
Appearance:	Clear Liquid
Flash Point:	None
Specific Gravity:	1.02
Weight per Gallon:	8.34
Odor:	None
pH:	7.21
Resistivity:	$10^7 - 10^9$ after dry
Conductivity:	Static dissipative

### ELIMSTAT® ATS

Type:	Water-based topical antistat
Appearance:	Clear Liquid
Flash Point:	None
Specific Gravity:	1.04
Weight per Gallon:	8.36
Odor:	None
pH:	7.8
Resistivity:	$10^9 - 10^{10}$ ohms after dry
Conductivity:	Static dissipative

### Did you know...

ELIMSTAT ATS is used extensively in the manufacture of plastics. Venetian and mini blind manufactures use ELIMSTAT ATS to control static and keep blinds dust free. ELIMSTAT ATS may be applied by spraying, wiping or dipping and is easily designed into the manufacturing process.

## STATICO™ AE

ITEM #K4067

### Topical Antistat for Carpets, Upholstry and Fabrics

Formulated to eliminate static charges on carpets, upholstery and fabrics. Effectively prevents triboelectric charge buildup by increasing surface conductivity for an extended period of time.

STATICO AE contains no solvents or abrasives and is non-flammable. Apply by spraying with a fine mist — do not soak. Heavy traffic areas may need treatment more often.



## ELIMSTAT® ATS

ITEM #K4062

### Concentrated Topical Antistat · Prevents Dust Deposits · Controls Static Charges on Insulating Surfaces

Water based ELIMSTAT ATS is formulated for use where static electricity needs to be controlled. ELIMSTAT ATS will make any surface it is applied to static dissipative and eliminate static charges in static sensitive environments. By eliminating static charges and controlling static generation, nuisance problems such as static cling as well as problems associated with manufacturing plastics and damage to electronic components are overcome.

ELIMSTAT ATS is supplied as a concentrate for economical use. Dilute to 8 ounces per gallon of water for long-term effectiveness. ELIMSTAT ATS is non-flammable and fully biodegradable.



Available in 1 gallon, 5 gallon and 55 gallon containers.

## WRISTATS®

### ADJUSTABLE WATCH BAND

The 200 Series WRISTAT adjustable watch band will not pull hair or pinch skin. Maintains superb electrical contact to wrist with easy adjustment to almost any wrist size. Long lasting and easy to clean band. All outside surfaces are fully insulated to protect wearer. Hypo-allergenic stainless steel used throughout band. May be used for clean room use.

NOTE: WRISTAT® item numbers follow this standard nomenclature:  
**Series# - Cord Length - Resistor Value**

#### WITH STRAIGHT CORD

LIGHT WEIGHT	HEAVY WEIGHT*
#200AS - 4' - 1M	#225AS - 4' - 1M
#200AS - 8' - 1M	#225AS - 8' - 1M

#### WITH COIL CORD

LIGHT WEIGHT	HEAVY WEIGHT*
#210AS - 6' - 1M	#226AS - 6' - 1M
#210AS - 12' - 1M	#226AS - 12' - 1M
	#226AS - 24' - 1M

### ADJUSTABLE ELASTIC BAND

Fully adjustable elastic band with silver coated nylon filaments for exceptional contact. This unique design combines long lasting, built in memory with unparalleled comfort and reliability. The nylon filaments on the underside of the WRISTAT are permanently coated with silver. Silver is much lower in resistance than conventional metals which makes the 300 Series WRISTAT more conductive than regular brands. The silver coated nylon eliminates the inherent hazard of stainless steel fibers breaking off from the bands. The buckle design allows the user to make unlimited adjustment with little effort and no effect on the bands elasticity.

#### WITH STRAIGHT CORD

LIGHT WEIGHT	HEAVY WEIGHT*
#300AE - 4' - 1M	#325AE - 4' - 1M
#300AE - 8' - 1M	#325AE - 8' - 1M

#### WITH COIL CORD

LIGHT WEIGHT	HEAVY WEIGHT*
#310AE - 6' - 1M	#326AE - 6' - 1M
#310AE - 12' - 1M	#326AE - 12' - 1M
	#326AS - 24' - 1M

### HOOK & LOOP BAND

Non-irritating Hook & Loop Band adjusts to be worn on any size wrist snugly and comfortably. Electrical contact maintained with a metal plate under buckle.

#### WITH STRAIGHT CORD

LIGHT WEIGHT	HEAVY WEIGHT*
#2500 - 4' - 1M	#2506 - 4' - 1M
#2500 - 8' - 1M	#2506 - 8' - 1M

#### WITH COIL CORD

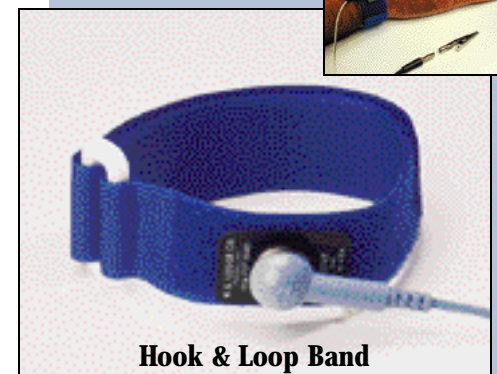
LIGHT WEIGHT	HEAVY WEIGHT*
#2700 - 6' - 1M	#2600 - 6' - 1M
#2700 - 12' - 1M	#2600 - 12' - 1M
	#2600 - 24' - 1M



**Adjustable Watch Band**



**Adjustable Elastic Band**



**Hook & Loop Band**

Heavyweight models are available with  
 1 meg, 510K, 270K or 51K resistors.

Increase skin conductivity  
 naturally with **AloeStat®**.  
 See page 28.



**Stainless Steel Band**

### STAINLESS STEEL BAND

Single stainless steel band makes contact with wearer's wrist. Exterior is coated with an insulating coating. Fully adjustable to any wrist size. May be used for clean room use.

#### WITH STRAIGHT CORD

LIGHT WEIGHT	HEAVY WEIGHT*
#340SRC - 4' - 1M	#360SRC - 4' - 1M
#340SRC - 8' - 1M	#360SRC - 8' - 1M

#### WITH COIL CORD

LIGHT WEIGHT	HEAVY WEIGHT*
#350SRC - 6' - 1M	#361SRC - 6' - 1M
#350SRC - 12' - 1M	#361SRC - 12' - 1M
	#361SRC - 24' - 1M



### HOOK & LOOP ELASTIC BAND

Non-irritating elasticized VELCRO® Hook & Loop Band adjusts to be worn on any size wrist snugly and comfortably. The elastic properties make this band the most comfortable wrist strap of its type. Electrical contact maintained with a metal plate under buckle.

#### WITH STRAIGHT CORD

LIGHT WEIGHT	HEAVY WEIGHT*
#2500HLE - 4' - 1M	#2506HLE - 4' - 1M
#2500HLE - 8' - 1M	#2506HLE - 8' - 1M

#### WITH COIL CORD

LIGHT WEIGHT	HEAVY WEIGHT*
#2700HLE - 6' - 1M	#2600HLE - 6' - 1M
#2700HLE - 12' - 1M	#2600HLE - 12' - 1M
	#2600HLE - 24' - 1M



**Hook & Loop Elastic Band**



**PALM-STAT**

### PALM-STAT™

ITEM #300M or 300L

#### Grounding Device for Spray Paint Operations

Controls Static Electricity during spray paint operations. Allows spray operator to wear conventional gloves as PALM-STAT fits over the glove and makes positive contact with the spray gun. Conductive neoprene is solvent resistant. Medium and large sizes available. No cords to ground, eliminating restrictions on the operator as well as safety hazards.

**NEW**

**Adjustable Elastic Band**



## WRISTAT® GROUND CORDS — Straight

### ITEM #2707

**LIGHTWEIGHT:** A single conductor tinned copper stranded (105 strands of 44 gauge wrapped) 24AWG wire with clear insulation. Available in 4' & 8' lengths with 1/4" nickled snap socket and a 1 meg ohm 1/4 watt carbon filled resistor molded on one end. A banana plug is molded on the other end which plugs into an alligator clip or optional end termination.

### ITEM #2803

**HEAVYWEIGHT:** A double conductor (1 tinned & 1 copper) stranded (each conductor 10 strands of 30 gauge wrapped) 20 gauge wire with clear insulation. Available in 4' & 8' lengths (or custom lengths). A molded, nickled 1/4" snap socket and a 1 meg ohm resistor is attached to one end with a soldered alligator clip on the other end.



Straight Cords - Heavy & Lightweights

## WRISTAT® GROUND CORDS — Coil

### ITEM #2703

**LIGHTWEIGHT:** A single conductor (wrapped 105 strand 55 gauge) 24AWG with blue insulation. Wire O.D. = .095" with a coil O.D. of .375". Available in 6' or 12' extended length. A nickled 1/4" snap socket and a 1 meg ohm resistor is molded on one end with a banana plug (which plugs into alligator clip or optional BULLDOG CLIP) on the other end.

### ITEM #2804

**HEAVYWEIGHT:** A single tinned copper conductor (wrapped 105 strand 40 gauge) 20AWG with black insulation. Wire O.D. = .145" with a coil O.D. of .475". Available in 6', 12' or 24' extended length. A molded 1/4" nickled snap socket and a 1 meg ohm resistor is attached to one end with a soldered alligator clip on the other end.

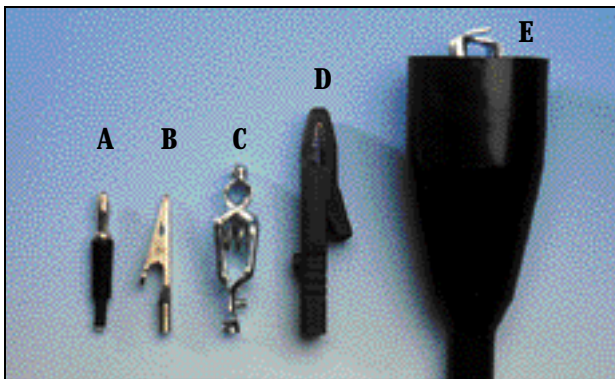


Coil Cord - Lightweight



Coil Cord - Heavyweight

## TERMINAL ENDS



- A. Banana Jack Adapter
- B. #2705 Alligator Clip
- C. Snet Clamp
- D. #2704 Bull Dog Clip
- E. Mueller Clamp

**NOTE:** Ground cords may be customized with 1/4" molded snaps and a 510K ohm, 270K ohm or 51K ohm resistor on one end and a variety of ground connections on the other end. The molded end is color coded and cords are marked with resistor value.

All of the above WRISTAT® ground cords may be used with any of LEGGE'S WRISTBANDS.



### Resistors

Orange  
270K

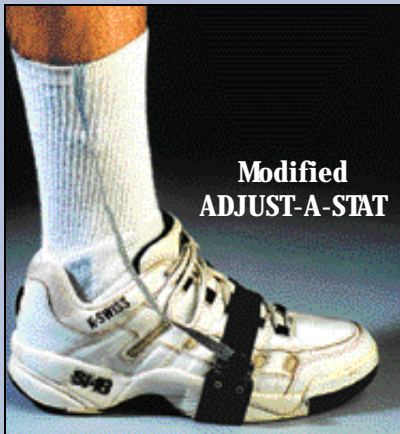
Red  
51K

Yellow  
510K

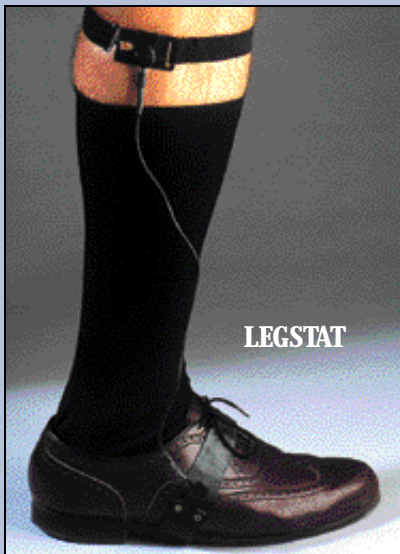
Black  
1 MEG



ADJUST-A-STAT



Modified  
ADJUST-A-STAT



LEGSTAT

## ADJUST-A-STAT® (for heeled shoes)

A conductive cushioned neoprene rubber strap worn under the shoe arch for positive contact to the floor. An adjustable strap fits over the shoe. A conductive "tongue" fits under the heel of the foot for positive contact.

Also available in new Comfort Flex HLE design. (hook & loop elastic)

<b>ITEM:</b> #2650	#2660HLE
#2651-1 Meg Resistor	#2661HLE-1 Meg Resistor
#2651-2 Meg Resistor	#2661HLE-2 Meg Resistor
#2651-51K Resistor	#2661HLE-51K Resistor
#2651-270K Resistor	#2661HLE-270K Resistor
#2651-510K Resistor	#2661HLE-510K Resistor

## MODIFIED ADJUST-A-STAT® (for flat soled shoes)

Similar to the regular ADJUST-A-STAT but designed to be worn with flat soled shoes. Made with non-marking two-layer reinforced conductive rubber.

Also available in new improved Comfort Flex HLE design.

<b>ITEM:</b> #2655	#2665HLE
#2656-1 Meg Resistor	#2665HLE-1 Meg Resistor
#2656-2 Meg Resistor	#2665HLE-2 Meg Resistor
#2656-51K Resistor	#2665HLE-51K Resistor
#2656-270K Resistor	#2665HLE-270K Resistor
#2656-510K Resistor	#2665HLE-510K Resistor

## LEGSTAT® (for heeled shoes)

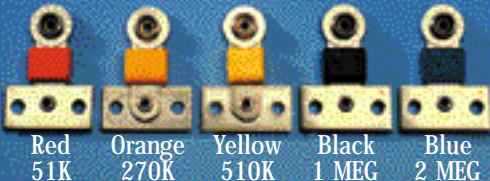
Designed for use on shoes with heels, to be worn by mobile personnel on conductive or static dissipating floors. Fits over any size shoe. Manufactured with new very soft under-arch pad on a conductive neoprene rubber strap to maintain positive contact to the floor without restricting the mobility of personnel.

<b>ITEM:</b> #2000
#2100-1 Meg Resistor
#2100-2 Meg Resistor
#2100-51K Resistor
#2100-270K Resistor
#2100-510K Resistor

LEGSTAT® HLE



### Other Resistor Values Available On Heavy Weight Cords



The Walter G. LEGGE Co., Inc. manufactures over 200 models of various personnel grounding devices — both stock and custom design. These items control static electricity in static sensitive areas with various resistor values for specific applications and specifications. Resistor values of 51K, 270K, 510K, 1meg and 2megs are available. A 2meg resistor will impart a 1meg resistance to ground when worn on both feet as recommended.

Custom design models and modifications to existing models may be designed and manufactured in a short time frame with no minimum. WRISTATS® are sold as a single unit and grounding devices to be worn on the feet are sold in pairs and must be worn in pairs.

# CONDUCTIVE FOOT GROUNDERS

## **LEGSTAT® HLE (for heeled shoes)**

New improved Comfort Flex HLE design, incorporates fully adjustable elastic hook and loop upper with soft under-arch pad on neoprene conductive rubber.

**ITEM #'s:**

**2010HLE, 2110HLE - 1 MEG Resistor, 2110HLE - 2 MEG Resistor, 2110HLE - 51K Resistor, 2110HLE - 270K Resistor, 2110HLE - 510K Resistor**

## **MODIFIED LEGSTAT® (for flat soled shoes)**

Non-marking 2 layer reinforced conductive rubber strap fits comfortably under soft or regular flat soled shoes of all sizes. An adjustable strap assures snug fit. Unit connects to the standard LEGSTAT garter assembly and includes all the quality features of our regular LEGSTAT unit.

**ITEM #'s:**

**2050, 2150 - 1 MEG Resistor, 2150 - 51K Resistor, 2150 - 270K Resistor, 2150 - 510K Resistor**

**ITEM #'s:**

**2060HLE, 2160HLE - 1 MEG Resistor, 2160HLE - 2 MEG Resistor  
2160HLE - 51K Resistor, 2160HLE - 270K Resistor, 2160HLE - 510K Resistor**

## **SOLESTAT® (for heeled shoes)**

Because many women, as well as some men, prefer the convenience of an inner-sole to that of a garter, the Walter G. LEGGE Company, also manufacturers SOLESTATS. Universal in its wearability with any type or size shoe, SOLESTAT achieves effective skin contact by means of a conductive innersole.

**ITEM #'s:**

**2200, 2211 - 1 MEG Resistor, 2211 - 2 MEG Resistor, 2211 - 51K Resistor, 2211 - 270K Resistor, 2211 - 510K Resistor**

## **SOLESTAT® HLE (for heeled shoes)**

Same as SOLESTAT, but with new Comfort Flex HLE design, fully adjustable elastic hook and loop upper.

**ITEM #'s:**

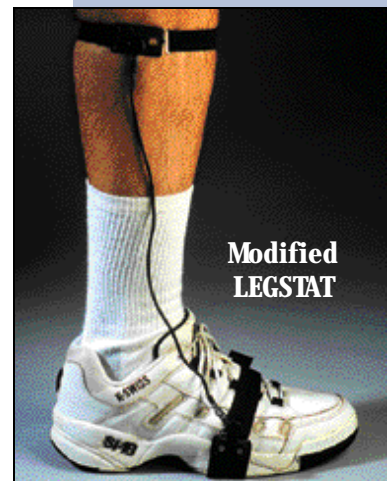
**2210HLE, 2221HLE - 1 MEG Resistor, 2221HLE - 2 MEG Resistor,  
2221HLE - 51K Resistor, 2221HLE - 270K Resistor, 2221HLE - 510K Resistor**

## **MODIFIED SOLESTAT® (for flat soled shoes)**

Same as SOLESTAT, but designed to be worn with flat sole shoes. Made with non-marking two-layer, reinforced conductive rubber.

**ITEM #'s:**

**2250, 2251 - 1 MEG Resistor, 2251 - 2 MEG Resistor, 2251 - 51K Resistor  
2251 - 270K Resistor, 2251 - 510K Resistor**



# CONDUCTIVE FOOT GROUNDERS



**Modified  
SOLESTAT  
HLE**

**All units with garter assembly are also available with new comfort strap.**

## **MODIFIED SOLESTAT® HLE (for flat soled shoes)**

Same as MODIFIED SOLESTAT, but with new Comfort Flex HLE design, fully adjustable elastic hook and loop upper. Made with non-marking two-layer reinforced conductive rubber.

**ITEM #'s:**

**2260HLE, 2261HLE-1 MEG Resistor, 2261HLE-2 MEG Resistor, 2261HLE-51K Resistor, 2261HLE-270K Resistor, 2261HLE-510K Resistor**



**HEELSTAT  
w/Garter**

## **HEELSTAT™ (for both flat and heeled shoes)**

New, completely adjustable design, manufactured to the highest standards of quality and versatility. Can be worn on any size low heel or flat soled shoe. Two elastic adjustable hook and loop straps, ultra sonic welded and permanently fastened with metal eyelets to non-marking two-layer, (white/black) reinforced conductive rubber, provides easy adjustment and comfort. HEELSTAT can be worn with garter assembly, with or without resistor, or with conductive inserts inside of shoe.

**ITEM: #1720** With garter assembly, no resistor

**#1721-1 MEG** Same as 1720 with the addition of 1 meg resistor. Optional 2 MEG, 51K, 270K, or 510K available.

**#1722** Same as 1720 but contact with the wearer is provided via a conductive SOLESTAT insert that fits into shoe for contact. SOLESTAT insert is made of conductive neoprene.

**#1723** Same as 1722 with the addition of 1 meg resistor. 2 MEG, 51K, 270K, or 510K resistor available.

**#1726** Same as 1720 but contact with the wearer is provided via a conductive strip insert that fits into shoe. ADJUST-A-STAT insert is made of conductive fabric.

**#1727** Same as 1726 with the addition of 1 meg resistor. 2 MEG, 51K, 270K or 510K resistor available.



**HEELSTAT  
w/Insert**



**HEELSTAT  
w/SOLESTAT  
Insert**



**HEELSTAT  
with Garter**

# CONDUCTIVE FOOT GROUNDERS

## SPECIFICATIONS

### BOOTSTAT® (for heeled boots or shoes)

Conductive neoprene rubber foot strap designed to be worn under the arch of the shoe by mobile personnel on conductive or static dissipative floors. Similar to LEGSTAT #2000 but with an adjustable strap over the shoe to accommodate larger boot sizes.

**ITEM #'s:**

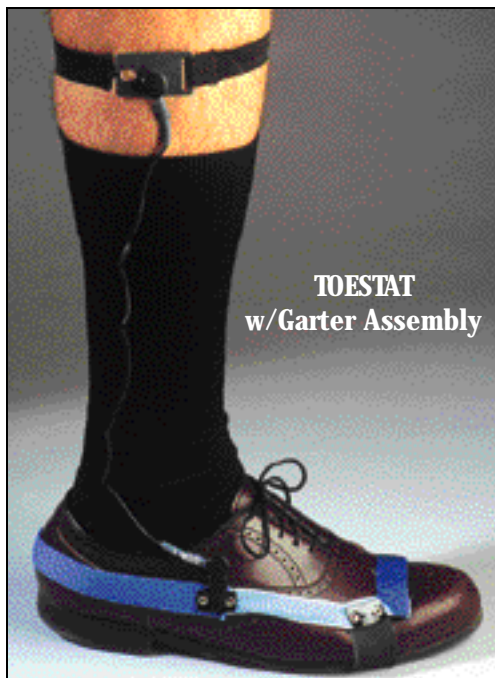
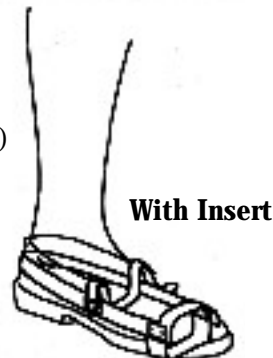
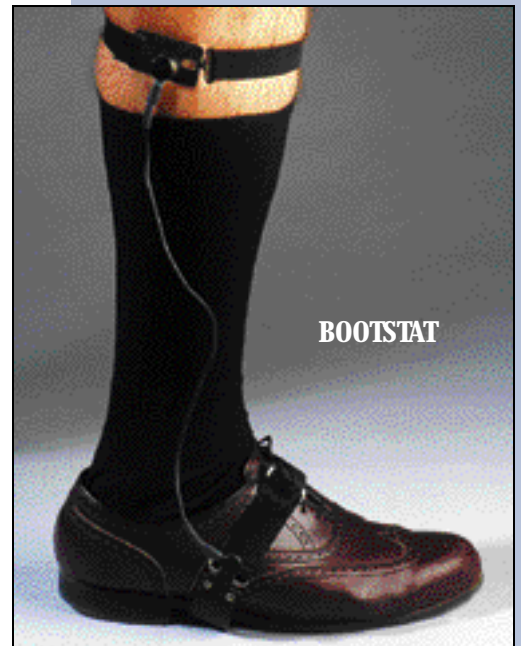
**1950, 1955 - 1 MEG Resistor, 1955 - 2 MEG Resistor, 1955 - 51K Resistor  
1955 - 270K Resistor, 1955 - 510K Resistor**

### TOESTAT™ (for both heeled or flat soled shoes)

Designed for use on any shoe, but is excellent on a woman's high heeled shoe. Positive contact with the floor is made on the forward part of the shoe with a strip of non-marking two-layer reinforced conductive rubber. A Velcro closure is used on top of the unit to ensure proper adjustments. A comfortable elastic band attaches to the ground conductor Velcro closure and wraps around the back of the heel to ensure comfort and fit. Available with any one of our standard body contacts (garter, insert or SOLESTAT insert) with or without resistor.

- ITEM: #1620** With garter
- #1621 - 1 MEG** With garter and resistor
- #1622** With SOLESTAT insert (not pictured)
- #1623 - 1 MEG** With SOLESTAT insert and resistor (not pictured)
- #1626** With ADJUST-A-STAT insert
- #1627 - 1 MEG** With ADJUST-A-STAT and resistor

\*Also available with 2 MEG, 51K, 510K, 270K resistors



(ON FACING PAGE)

### TWO LAYER LEGMAT

Resistance from	
Surface to Ground:	10 <sup>7</sup> - 10 <sup>9</sup> ohms EOS/ESD Std-4
Charge decay time:	<.01 seconds Fed Std 101 Met 4046
Surface Resistance:	10 <sup>7</sup> - 10 <sup>9</sup> ohms ASTM D257
Point to Point	
Resistance:	10 <sup>7</sup> - 10 <sup>9</sup> ohms EOS/ESD Std-4
Surface Resistance	
(bottom):	<10 <sup>5</sup> ohms ASTM D257
Thickness	
(Total Mat):	.60 +/- .002 inches
Tensile Strength:	1000 psi ASTM D412
Durometer:	60 ASTM D2240 (Shore A)
Chemical Resistance:	Excellent (Use LEGGE's CONDUCTIVE CLEANER for daily and as needed cleaning)
Solder Resistance:	Excellent (molten solder has no effect)
COLOR:	Black/Blue

# SPECIFICATIONS

# STATIC CONTROL MATTING AND WORK SURFACES

## 1/8" LEGMAT

Thickness:	Nominal 1/8" 0.120 in. + 0.005 in.
Weight:	0.94 lbs./ft. <sup>2</sup>
Hardness:	70 + or - 3
Shore "A" Durometer	
ASTM D-2240-75	
Tensile Strength:	700 + or - 50 psi
ASTM D-412-75	
Elongation - 100%:	240 + or - 25%
ASTM D-412-75	
Tear Strength-Die"C":	100 + or - 10 lbs./in.
ASTM D-624-73	
Wear Resistance/ Weight Loss:	Less than 0.02 grams
Tabor Abrader	
1000 Cycles CS-	
17 Wheels	
1000 Grams Load	
Flame Resistance	
Methenamine	
Tablet Test:	Less than 0.5 in.
DOC-FF1-70	
Limiting Oxygen	
Index:	Greater than 27%
ASTM D-2863-77	
FMVSS302:	Passes
ELECTRICAL PROPERTIES	
*Resistance to	
Ground:	10 <sup>9</sup> ohms
ASTM D-257	
Volume Resistivity:	10 <sup>8</sup> ohms - cm
ASTM D-257	
**Static Decay Time:	Less than 0.10 sec.
MIL B 81705-C	

\* Direct resistance reading to ground point on 36 inch diagonal, measured in 2 inch increments using Dr. Kamphausen Mili-i to precision Ohm meter at 500 volts.

\*\* The electro-static decay criterion as outlined in MIL B 81705C, and specified in EIA, IS-5 when tested in accordance with FTS 101C method 4046.1 5000 volts to technical 0 volts with 2.0 seconds maximum. The information contained above is generally representative of the product.

## THREE LAYER LEGMAT

### Electrical Properties

Rtg	10 Volts	1.9 x 10 <sup>6</sup> ohms
Rtt	10 Volts	2.3 x 10 <sup>6</sup> ohms
Rtg	100 Volts	1.6 x 10 <sup>6</sup> ohms
Rtt	100 Volts	2.1 x 10 <sup>6</sup> ohms

### Physical Properties

Gage:	.125 in.
Tensile:	360 PSI
Elongation:	>125%

### Flame Resistance

Methanamine	
Tablet Test:	<0.5 in.

## LEGMAT 1/8" STATIC DISSIPATIVE WORK SURFACE & FLOOR MATTING

LEGMAT is a homogeneous product—not composed of laminated composites. This quality assures you of quick, safe, static dissipation with no chance of capacitance surge.

The combination of both LEGMAT floor mats and work surface mats provides you with the ultimate protection for your components and equipment. They dissipate damaging electrostatic charge from the human body.

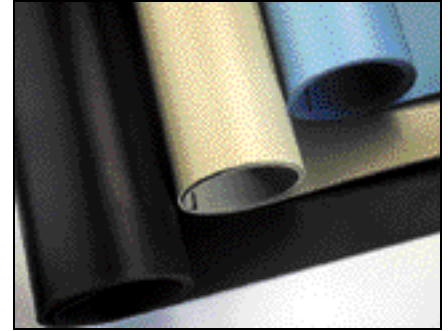
### Features:

- Permanently Static Dissipative
- Eliminates capacitance surge
- Electrical properties are virtually unaffected by changes in humidity
- Superior heat and flame resistance
- Durable and flexible
- Lays flat

### Designer Colors Available:

- ITEM: #3010** - Electronic Blue  
**#3011** - Designer Ivory  
**#3012** - Midnight Brown

**Sizes Available:** 2' x 100', 3' x 100', 4' x 100'



**1/8" Static Dissipative LEGMAT**

## TWO LAYER LEGMAT

### ITEM #3101

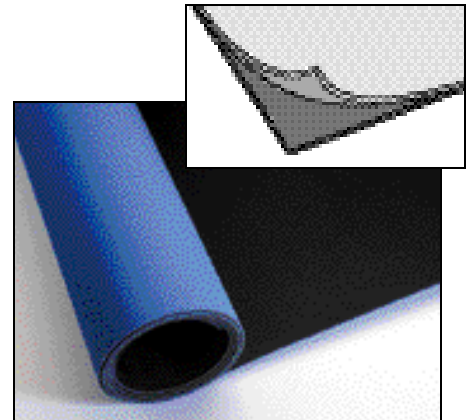
### Floor and Table Matting

One side is Static Dissipative, and the other is Conductive. Chemical & Solder Resistant LEGGE'S

TWO LAYER LEGMAT is a unique design that combines the durability of rubber with the resistance to solder and chemicals required in the demanding environments of today's manufacturing facilities.

TWO LAYER LEGMAT provides excellent static dissipation properties that exceed both EOS/ESD and DOD requirements.

**Sizes Available:** 2' x 75', 4' x 75'



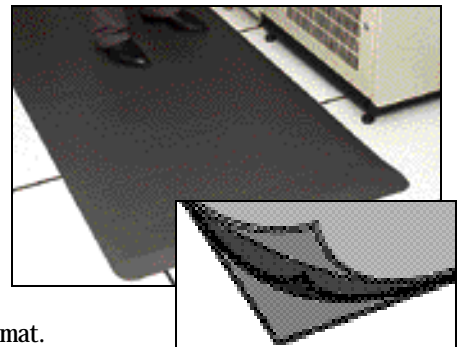
**Two Layer LEGMAT**

## THREE LAYER LEGMAT

### ITEM #3610 - 3 Layer

Vinyl matting consisting of a solid static dissipative, vinyl skin and a buried conductive layer. The buried layer provides excellent conductivity without the danger of exposed conductors. Provides constant resistance to ground from any position on the mat.

**Sizes Available:** 2' x 75', 4' x 75'



**Three Layer LEGMAT**

All mats are available cut to any length.

### CONDUCTIVE FLOOR RUNNERS AND TABLE MATS

**RIBBED ITEM #3000**

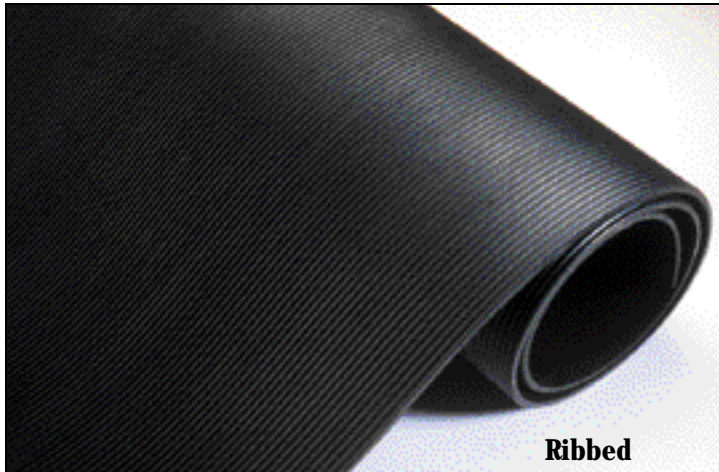
**SMOOTH ITEM #3003/3004**

LEGGE CONDUCTIVE RUNNERS and MATS are made to be used in areas where harsh chemicals and solvents would tend to attack flooring. The inherent solvent resistance of our rubber make them virtually indestructible!

Mats are available in full rolls and precut sizes. The runners may be permanently affixed with glue or they can lay on the floor or table without glue so that they may be moved from place to place. Unlike vinyl type mats the LEGGE mat will lie flat and does not become a tripping hazard. In the interest of safety however — some form of clamp or screw may be required if the mat is placed on a slippery surface.

All personnel standing on runners or mats must be wearing body grounding devices to dissipate body static charges. Please refer to body grounding devices located on page 15 - 18. The mats will drain all static from conductors as well as from itself.

Conductive floor runners used within a complete system of static control have reduced failures on sensitive items as well as safeguarded against explosion and fire hazards due to static electricity discharge.



**Ribbed**



**Smooth**

- Conductivity not effected by humidity or temperature
- Complies to NFPA Code 99—NFPA Method 250,000 ohms
- Surface resistivity  $10^3 - 10^5$
- Static decay rate less than 0.5 seconds

### FLOOR RUNNER

Surface:	Smooth	Ribbed
Thickness:	1/8" or 1/4"	1/8"
Width:	48"	36"
Roll Length:	50' (or precut)	75' (or precut)
Ohms/sq. in.:	$10^3 - 10^5$ ohms	$10^3 - 10^5$ ohms
Fillers:	Carbon	Carbon
Color:	Black	

### ESD MODULAR MAT AND ESD MODULAR DRAINAGE MATTING

Type: Grease resistant rubber compound

Resistance point to point:  $1 \times 10^7$  Ohms

Charge decay time, 5000 Volts –10 Volts, FTMS 10 1 C, Method < 0.01 Seconds

Durometer, Shore 00,

ASTM D-2240: 50

Thickness: 1/2"

Color: Black



**Designed with beveled edges for firm, flat contact with the floor**

**Diamond Plate Anti-Fatigue Matting**

# SPECIFICATIONS

# STATIC CONTROL MATTING AND WORK SURFACES

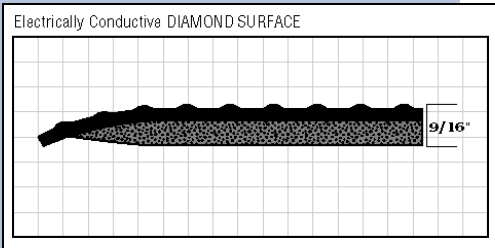
## ANTI-FATIGUE MATTING

### #3017 - Static Dissipative

Surface Resistivity: Surface to surface  $1 \times 10^7$  ohms  
 Surface to ground  $1 \times 10^7$  ohms  
 Size: 3' wide x 1/2" thick x 75' full roll  
 Color: Gray  
 Surface: Smooth and diamond plate vinyl

### #3018 - Conductive

Surface Resistivity: Surface to surface  $1 \times 10^4$  ohms  
 Surface to ground  $1 \times 10^4$  ohms  
 Size: 3'x5' precut  
 3' wide x 1/2" thick x 75' full roll  
 Color: Black  
 Surface: Smooth and diamond plate vinyl



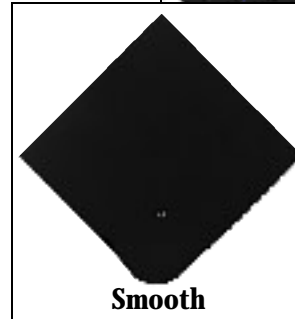
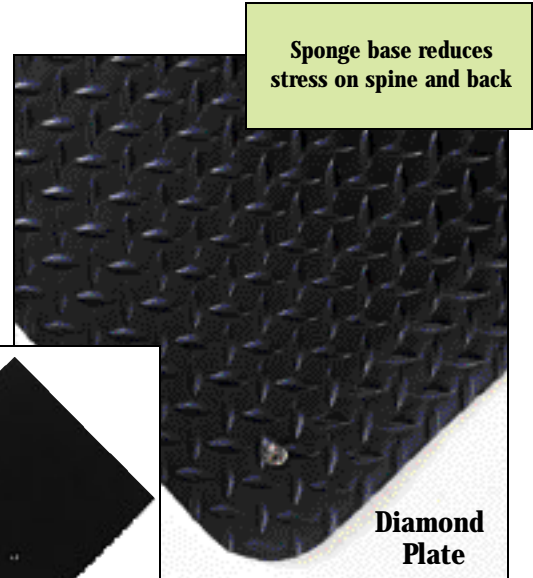
**Electrically Conductive Diamond Surface**

## STATIC DISSIPATIVE AND CONDUCTIVE ANTI-FATIGUE MATTING

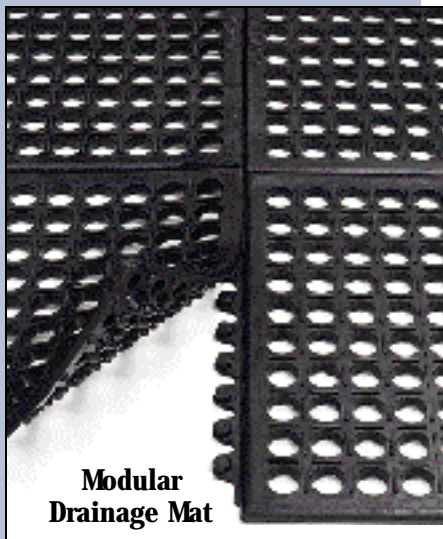
### ITEM #3017 (Static Dissipative)

### ITEM #3018 (Conductive)

Prevents fatigue while protecting components and personnel from damaging electric shock. Use in areas where static discharge can harm materials (static dissipative) or ignite flammable/ explosive materials (conductive). Sponge base reduces stress on spine and lower back muscles caused by standing in one place for extended periods of time.



Available cut to any length with a 3' width



## ESD MODULAR MATS

### ITEM #3097 (Modular Drainage)

### ITEM #3098 (Modular)

Innovative, Modular Drainage ESD Anti-fatigue Matting. Use in areas where static discharge and slippery/ wet floors are a problem. Use as a single workstation mat or cover an entire floor. Extremely versatile. Designed to greatly reduce loss from static discharge. The proprietary built-in interlocking system requires no connectors or additional bevels and allows the mat to be interlocked vertically or horizontally. Manufactured for comfort and functionality, Modular Drainage design will greatly reduce problems associated with slippery conditions as well as reduce ESD dangers. Rounded corners for easy access.



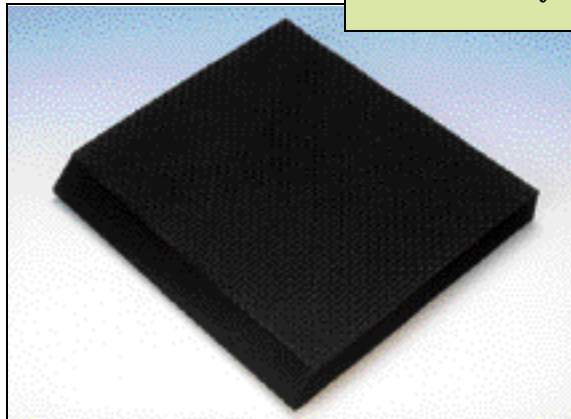
### ANTI-FATIGUE CONDUCTIVE MATTING

**ITEM # AFM366658 - size 36" x 66" x 5/8"**

**ITEM # AFM333658 - size 33" x 66" x 5/8"**

The anti-fatigue conductive mat was designed for protection against Electrostatic Discharge (ESD). The sponge rubber mat is conductive for rapid static discharge to ground. Resistance readings are well within the specifications called out in DOD and NFPA specifications. The closed cell nitrile material presents excellent resistance to abrasion, oil, grease, and most common solvents. These anti-fatigue mats are scientifically and ergonomically designed to reduce strain from standing on hard surfaces and provide proper orthopedic comfort. Use this high quality mat in harsh work environments where proper static elimination is critical.

Available in black. Two stock sizes with a standard 45° bevel to prevent tripping. Also available as a runner in 3' widths.



**Stand in Total Comfort Today!**

### CONDUCTIVE INTERLOCK MAT

**ITEM #3025**

**A reliable and economical protection from static discharge.**

These mats offer exceptional resistivity: Surface-to-surface —  $10^4$  ohm and surface-to-ground —  $10^4$  ohm. Specially compounded 1/2" thick rubber is electrically conductive throughout the mats, which are engineered with buoyant air pockets underneath to create a very comfortable work surface. This construction greatly reduces fatigue and other aches and pains related to standing. The sections easily "lock" together to create runners of virtually any size.

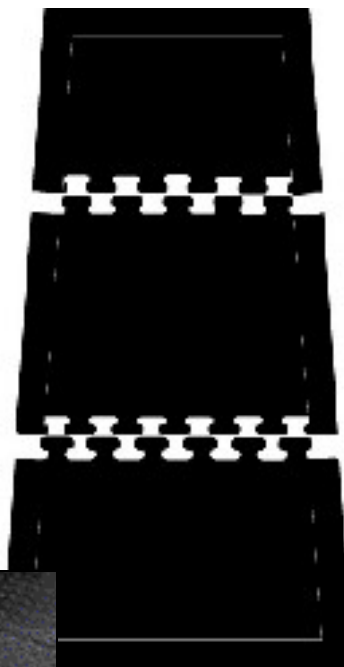
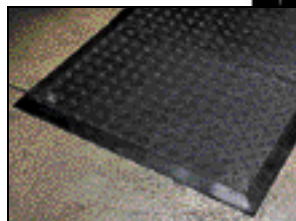
The mats are also available in singles for individual workstations and are economically priced. The high-tech deck plate surface is easy to clean yet provides additional traction. Its edges are beveled for safe, easy access.

Color: Black

Stock Sizes:

3' width x 2' length

Ends, Singles, Centers



### ANTI-FATIGUE CONDUCTIVE MATTING

Type:	ESD Sponge anti-fatigue floor mat
Resistance point to point	
bottom layer, same:	$5 \times 10^5$ Ohms
Charge decay time, 5000 Volts - 10 Volts, FTMS10 1 C, Method	< 0.01 Seconds
Durometer, Shore 00, ASTM D-2240	50
Burn Test, UL94 HBF	Passed
	Extinguished in 10 sec., burned 1/4"
Thickness:	5/8"
Color:	Black

### CONDUCTIVE INTERLOCK MAT

Surface Resistivity:	
Surface to Surface -	$1 \times 10^4$ ohms
Surface to Ground -	$1 \times 10^4$ ohms
Size:	Stock size is 3' X 2'
	Ends, Singles, Centers
Color:	Black
Surface:	Deck Plate

### On Facing Page

### FIELD SERVICE KIT

#### Electrically Conductive Antibacterial Fabric Properties Test Method Results

Face:	$1.0 \times 10^7$ Ohms (NFPA): #56A-73 Para 4631
Back:	$3 \times 10^3$
Bacterial, Fungal, and Mildew Resistance:	Excellent
Primary Skin Irritation Index:	0 Draize Dermal Toxicity
Weight:	10.00 oz. per sq. yd.
Flame Resistance:	1.5 sec. after flame & glow time
Char Length:	5.3 in.
Breaking Strength:	85 lbs./1 in. 5100
Tear Resistance:	30 lbs 5134 & HTM 4.2.3
Abrasion Resistance:	3.8 5304,5201 & HTM 4.2.2
	<ul style="list-style-type: none"> <li>• Two months accelerated aging @ 160</li> <li>• Five days immersion in #30 motor oil</li> <li>• Fifteen minutes immersion in ethyl ether</li> <li>• Low humidity (desiccated) - 4 week exposure</li> <li>• Washing with 2% soap solution - 24 cycles</li> <li>• Exposure to 24 common antiseptics</li> <li>• Autoclaving</li> <li>• Series of flex tests</li> </ul>
Dimensions:	24" x 24"

# SPECIFICATIONS

# STATIC CONTROL MATTING AND WORK SURFACES

## LEGTOP DECORATIVE STATIC DISSIPATIVE LAMINATE

Surface Resistivity:	Typical
ASTM D257	$10^3 - 10^5$
Resistance to Ground Ohms:	NFPA-99 $10^3 - 10^5$
Decay Rate:	5000 to 0 Volts - .5 sec. (Fed Test Method 101C-4046 0.01)
Wear Resistance:	(NEMA1d-3-1985) Legtop Conventional Typical Nema Value 1550 Cycles Typical Rate of Wear 600 Cycles
(Weight loss per 100 Cycles Abrasion):	.006 gm/100 cycles
Thickness:	.032 post formed or .050
Formability:	Postformable within 1/2" to 3/4" radius depending on equipment and humidity
Sizes:	4'x10'; 3'x10'; 5'x10'; 4'x12'; 3'x12'; 5'x12'
Chemical Resistance:	Resistant to common solvents such as: Acetone; 111 Trichloroethylene; Solder Flux; Isopropyl Alcohol; Naphtha
Temperature Resistance:	350° F with no change per NEMA LD-3.08. Molten solder will not mar surface
Color:	Soft White, Beige, Blue, Grey

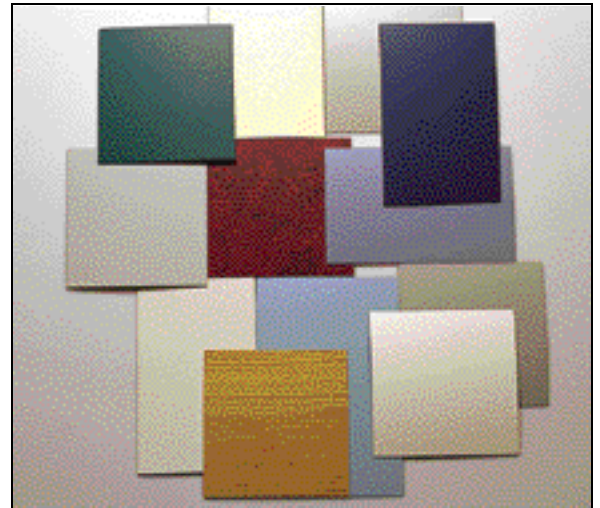
\*Laminate must be grounded to be effective, assembled structure must be tested for continuity to ground to ensure functionality. One (1) megohm current limiting resistor must be installed in series with the ground to provide personnel protection.

## LEGTOP DECORATIVE STATIC DISSIPATIVE LAMINATE

LEGTOP is a hard laminate manufactured with the electronics and clean room industries in mind. This high pressure laminate is designed to provide extraordinary resistance to sliding abrasion, with extreme hardness and extended durability — typical requirements of work surfaces in the electronic industries.

The unusual hardness of the LEGTOP surface, eliminates the possibility of contamination in a clean room environment. The prevention of loose particle generation during sliding abrasion is a fundamental requirement in the clean room environment — LEGTOP meets this requirement.

LEGTOP, properly installed, will provide a controlled path to ground, with rapid and effective dissipation of electrical charges without voltage suppression.



## FIELD SERVICE KIT

### ITEM #FSK-1

The LEGGE FIELD SERVICE KIT (FSK) permits field technicians to perform repairs on a static free surface. The FSK prevents and dissipates static charges that are potentially harmful to sensitive components. The black side of the FSK is conductive, while the green side is static dissipative. This design allows the charges to effectively drain off the static dissipative surface to the conductive side and then to ground through the included ground strap. A common ground point is provided so that the technician can connect a Wriststrap (included) to the FSK. This arrangement ensures that the surfaces and the technician are at the same electrical potential — further minimizing potential damage to sensitive components. Very durable and made to be folded and transported from one location to another. The material meets all conductivity and static decay specifications of MIL-B81705B and NFPA #56A.



### IMPORTANT INSTRUCTIONS FOR ALL MATTING

- All LEGGE Static Dissipative and Conductive Mats and work surfaces should always be cleaned regularly with LEGGE CONDUCTIVE CLEANER only (see page 9) to avoid soil and debris buildup.
- LEGMAT should be connected to suitable ground for maximum effectiveness. Workers should use one meg ohm resistor type WRISTAT (see pages 12 to 14) or LEG STRAP (see pages 15 to 18).
- Common household and commercial cleaners should be avoided due to the possibility of build-up on the surface of the matting. This build-up may insulate the matting and reduce the ability to discharge static electricity.

Field Service Kit

# METERS AND TEST EQUIPMENT

## CONDUCTIVE FOOTWEAR TESTER

ITEM #SLTM-1

### Checks Conductive Footwear Automatically

Item #SLTM-1 Conductive Footwear Tester automatically and accurately measures the exact amount of resistance in conductive footwear and body grounding devices, ensuring a static control environment.

Our Item #SLTM-1 is a quality electronic instrument, precisely built with heavy duty polished aluminum foot plates and designed to give years of dependable service. It is ideal for dangerous, potentially explosive areas or areas in the electronic industry where static can destroy sensitive components.

Stand on the foot plates and the unit's direct-reading dial with graduated, color-coded scale indicates the exact amount of resistance.

Shipped complete and ready to operate, it has 8 feet of 18-3 type SJ power cord that plugs into any grounded 120 volt AC power source. Also available in 220 volt and battery operated. This unit measures 17 x 12 inches and weighs less than 6 1/2 lbs. All conductive footwear and body grounding devices, such as LEGSTATS, must be worn in pairs.

## SLTM-220V

Same quality construction as the SLTM-1, but in 220V power supply. Plugs into any 220V outlet with proper plug.

## SLTM-4145.26

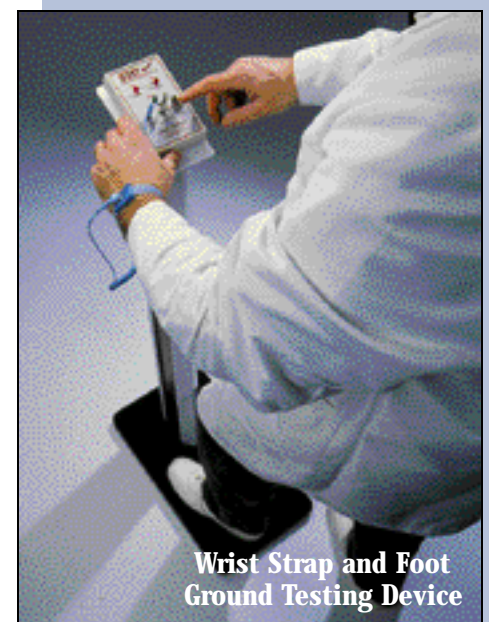
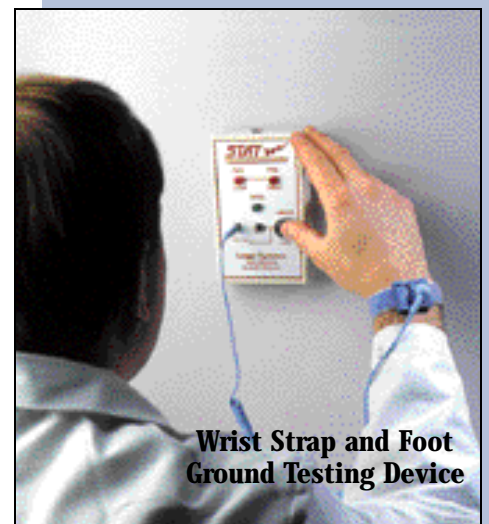
Available to meet DOD standards. Upper limit set at 1 Meg Ohm in accordance with DOD HDBK 4145.26.

## Wrist Strap and Foot Ground Testing Device

ITEM #WSLS-S

The LEGGE Model WSLS-S Series Wrist Strap and Leg Strap Tester is designed for the verification of personnel grounding devices under actual wearing conditions. The base of the WSLS-S has a conductive mat for footwear or leg ground testing. The WSLS-S can be conveniently placed so workers can check ground straps without interrupting their normal work day. The WSLS-S is supplied with a long-life 9-volt battery and 120/9V AC adapter.

- **High resistance warning buzzer and red LED to indicate high resistance or poor contact with personnel**
- **Low resistance warning buzzer and red LED to indicate unsafe resistance**
- **"Good" green LED to indicate safe and adequate static dissipation to ground**
- **Easily calibrated and traceable to National Bureau of Standards**



## WRISTAT® TESTER

### ITEM #WT25



**WT25 Wristat Tester**

The LEGGE Item WT25 WRISTAT Tester is designed to test the integrity of our WRISTAT in a fast, efficient and simple manner. All of the elements of the WRISTAT — continuity of the strap, integrity of the protective resistor, and satisfactory strap to skin contact — easily confirmed by pressing the top cover of the WT25. The operator (wearer) is tested for a resistance to ground of greater than 750K ohms and less than 10M or switchable to 100M ohms.

The upper limit notifies you of an unacceptably high resistance value (ie: possible loss of effective dissipation) and the lower limit warns of unsafe low resistance (possible risk of electric shock from surrounding motors, live wires, etc.)

### CONTINUOUS MONITOR

Operating Limits: 500 kilohms - 35 megohms  
 Work Surface Limit:  $5 \times 10^8$  ohms (LG1016)  
 Response Time: 50mS  
 Long Term Drift: 3% in 50 years  
 Temp: 10°C to 40°C

## WT-25 – 4145.26

WT-25 – 4145.26 is available to comply with DOD HDBK 4145.26. The lower limit is set at 250K and the upper limit is set at 1 MEG (switchable to 10 MEG). Tests are performed in the same manner as the WT25.

## WORKSTATION DUAL CONTINUOUS MONITOR

### ITEM #LG1016

Continually monitors two operators and workstation to ensure proper path to ground and static dissipation. Monitors work surface for proper ground. Monitors two single wire WRISTATS. Cleanroom compatible. No field adjustments necessary. Auto-switch activation (in banana jack). Fast response — detects intermittent connections. Three pairs of red and green audible alarm. Computer output signal. Convenient mounting bracket available. Traceable to NIST standards.



**Workstation/Dual Continuous Monitor**

## CONDUCTIVITY TESTER

### (500 Volt) Meets NFPA Code

#### ITEM #LA-1

Easy-to-use meter developed for accurately testing the conductivity of floors and equipment. The LA-1 must be used regularly to monitor proper conductivity with NFPA Code #99. Regular use of the LA-1 will establish and maintain procedures for the proper maintenance of conductive floors, eliminate fire hazards, and ensures a static free environment.

- Available with AC power supply or hand crank
- Compact, lightweight and portable
- Simple to use
- Direct-reading dial with color-coded scale
- Various meter scales to choose from

The LA-1 uses 500V DC to test the resistance (in ohms) between two points (NFPA Code #99).

The meter comes ready to use (tin foil must be applied to bottom of weights). Simply follow the instructions for use and instantly obtain an accurate measurement.

### LA-1 – HC (not pictured)

Hand crank operated 500V megger also available. The LA-1 is also available in various voltages and ranges, including 100V.

### LA-1 – 220V (not pictured)

500V (or specified voltage output) operating with 220V AC power supply. See LA-1 description for additional features.

## CONDUCTIVITY TESTER – 100V

#### ITEM #LA-3123

The battery operated tester performs a variety of conductivity tests. The easy to use tester is highly accurate with clear readout. Simply connect the probes to the object under test and press button switch. Also test AC Voltage of any circuit by connecting probes and reading AC voltage on scale. Built in battery check gives instant confirmation of battery strength. In normal operation the LA-3123 will not need to be calibrated. If the user desires to test calibration of instrument, a suitable resistor with less than 5% deviation may be applied across terminals to verify accuracy of calibration.

Recommended instrument operating position is horizontal, DO NOT USE in external magnetic field exceeding 400 A/m.

#### ITEM #LAD-3123 (not pictured)

Same features as LA-3123 with the addition of a digital readout.



LA-1 Conductivity Tester and LA-1 220V

(On Facing Page)

### STATIC LOCATOR

- Voltage Ranges: X1: 0 to ±500 volts  
X10: 0 to ±5000 volts
- Range Selection: Two position switch
- Readouts: Voltage: Analog meter with center 0  
Tricolor scale with 10 divisions for each polarity  
Range: X1 - Green LED  
X10 - Red LED
- Battery/Life: Standard 9V/one year
- Case Material: ABS plastic with conductive coating
- Size: 3.75" l. x 2.25" w. x 1" d.
- Weight: 5 oz.



LA-3123



**Combined ResistanceTemp/Humidity Meter**

## COMBINED RESISTANCE/TEMP/HUMIDITY TESTER

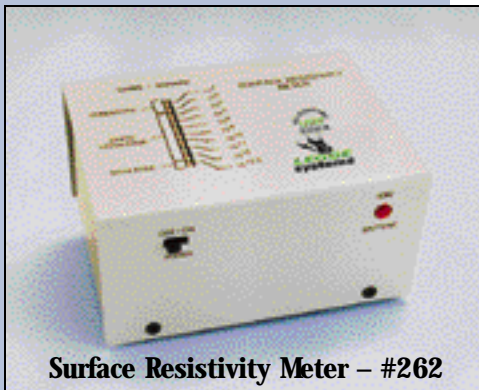
### ITEM #OHMSTAT 262

The only meter designed to test the three most important components involved in static electricity control. Quickly and reliably measures surface resistance, temperature and humidity. Comes complete with carrying case, two five-pound weights and battery. Output voltage is switchable between 10 and 100 volts — making the OHMSTAT 262 very versatile in meeting EOS/ESD specifications.

**NEW**

#### FEATURES —

- Easy-to-Use Push Button Design
- Portable — Battery Operated
- Accurate and Easy-to-Read Digital Readout
- Five Pound Electrodes Included — Complies with NFPA Code 99



**Surface Resistivity Meter – #262**

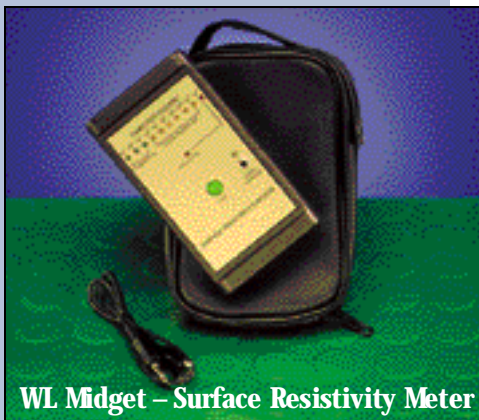
## SURFACE RESISTIVITY METER

### ITEM #262

LEGGÉ's 262 Surface Resistivity Meter is a simple to use, highly repeatable measuring device, for determining the surface resistivity of materials. The 262 incorporates a revolutionary 3-point probe measuring technique, enabling accurate, consistent and repeatable surface resistivity measurements. Provided with fully rechargeable nickel cadmium battery installed.

#### FEATURES —

- Easy to Use: No cables or probes to adjust
- Portable: Rechargeable battery powered
- Wide range of direct LED readings in Ohms
- Designed to widely accepted ASTM-D257 standards



**WL Midget – Surface Resistivity Meter**

## WL MIDGET – SURFACE RESISTIVITY METER

### ITEM #WL Midget

The WL MIDGET pocket surface resistivity meter is designed for optimum portability. This tester may be used for spot testing as well as quality control and routine auditing of ESD surfaces. The WL MIDGET is perfect for fast measurements of static dissipative and conductive surfaces. Measurements indicate decade resistance instantly and may be used to determine if additional testing is required. Nine-volt battery operated for convenience.

- Resistance range:  $10^3 - 10^{12}$  ohms
- Insulator indication
- Powered by PP3 9 volt battery
- ASTM recommended parallel bar sensing
- Resistance to ground using lead provided
- Complete with PVC carrying case



**Static Locator**

## STATIC LOCATOR

### ITEM #300B

Measures the magnitude and polarity of electrostatic fields instantly, reliably and economically. The ultra compact unit features the latest integrated circuit technology to locate and measure, by induction, electrostatic fields. The unit features one button operation and switches between ranges of  $\pm 500$  volts and  $\pm 5000$  volts when the meter is held 2" from a charged surface.

**ITEM #300D:** Available in easy to read digital readout for even more accurate measurements.



## ALOE-STAT®

ITEM #8062

### Conductive Skin Lotion

ALOE-STAT is a **conductive** skin treatment lotion, containing all the skin conditioning properties of natural aloe. The aloe plant is known for its unsurpassed quality as a skin conditioner, promoting healthy, silk like skin. It eliminates dryness and improves conductivity during contact with wrist straps. LEGGE uses no chemical additives to alter the natural properties of the aloe plant.

ALOE-STAT contains no oils, glycols, glycerin sterates, alcohols, amines or fragrances. These additives can irritate the skin and block the conductivity of the skin.

PH of this lotion was adjusted to the average pH of human skin. ALOE-STAT **conductive** lotion is formulated with a high content of aloe plant extract that is absorbed by the skin very rapidly and provides long lasting conductivity. There is no residue left on the skin, eliminating slippery and greasy hands. It is very cost effective, since only about half of the amount is needed for skin treatment, compared to other lotions on the market.

Available in 1oz., 4 oz., 16 oz., 32oz. and 1 gallon containers

## LAB COATS

ITEM #M62CSN

High quality, static dissipative lab coats for static sensitive areas.

Lab coats are available in Royal Blue, Petrol Blue and White. Custom designs and sizes from XS to 5XL are also available.



## ALOE-STAT®

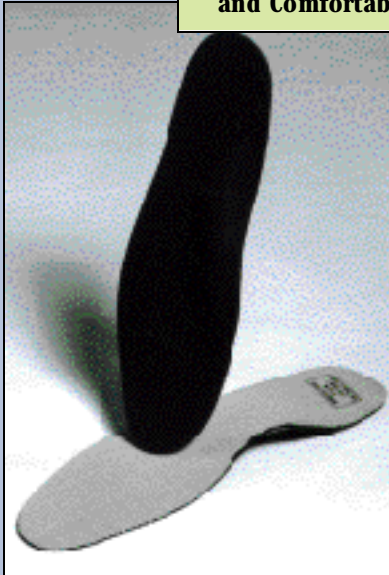
Appearance:	Colorless*
pH:	6.2- 6.5
Odor:	Pleasant natural aloe plant scent
Boiling Point:	2120 F
Conductivity:	10 <sup>9</sup> ohms (when dry on non-conductive surface)
Viscosity:	1640 CPS (Brookfield Spindle #3 @ 20 RPM)
Flammability:	Non-flammable
Skin Absorption:	Rapid and complete
Oily Residue:	None
Solvents:	None

\*Possible slight color change is typical of natural plant extract.  
Color change does not effect the performance of the product.

## LAB COAT

Content:	97.4% polyester 2.6% carbon suffused nylon
Type:	5 oz. texturized polyester
Warp:	Knit constructed for maximum comfort and durability
Surface	
Resistivity:	2.0 x 10 <sup>5</sup> ohms front 5.0 x 10 <sup>5</sup> ohms back
Decay:	5000 volts to 0 in less than 1 second
Durability:	No significant change with repeated washes
Non-linting:	No steel or cotton fibers

Washable, Durable  
and Comfortable



## CONDUCTIVE CUSHION INSOLES

### ITEM #CCI

Designed to fit ESD Type I and II and Conductive Type I footwear — boots, athletic shoes, even dress shoes — they deliver comfort and performance for anyone who spends time on their feet. Lightweight, durable RUBATEX® Conductive Rubber and covered with metalized polyester fabric. Conforms to ANSI Z41 Standard for Protective Footwear, 3/32" thick for steel toe footwear. Insole material reads 300-500 ohms at 50 volts DC and 100-300 ohms at 10 volts DC.

## CONDUCTIVE RUBBER BOOTS

### ITEM #1028

Protective CONDUCTIVE RUBBER BOOTS to be worn directly over socks in static sensitive areas. Especially recommended for industrial spray paint booths and any static sensitive area.

The CRB #1028 is waterproof, solvent and chemical resistant. Is designed with non-slip conductive sole and steel toe. Steel toe cap exceeds ANSI safety standards.

Available in black with green trim and labelled conductive.

Meets and exceeds Mil B-81705B, EIA-IS-5A ASTM-D257-78 for conductivity and decay rate.



### CONDUCTIVE RUBBER BOOT

Description: Conductive pac  
Lining: Cotton duck  
Upper: Rubber  
Size Range: 4-15 (men's whole sizes)  
Outsole: Non-slip conductive  
Color: Black with green trim  
Conductivity: Typical 0 -500,000 ohms  
Height: 12"  
Toe: Steel toe cap  
Z41.1-1983: 175 C75  
Weight: 4.2 lbs. per pair  
Shank: Steel

## CONDUCTIVE AND STATIC DISSIPATIVE FOOTWEAR

We offer a full line of footwear for static control applications. High quality footwear is comfortable and offers complete protection against static generation. Steel toe and soft toe shoes and boots are available.

Please call our toll free number: 877-885-7527 for more information.



Conductive & Static Dissipative Footwear

## CONDUCTIVE FOAM

### ITEM #CFC, ITEM #CFSR

Use as a protective media for in-plant handling and external shipping of static sensitive devices. Two types are commonly used. CFC Cushioning is used where delicate components may be subject to shaking or rough handling during transit. The spongy material withstands physical abuse while providing packaging. Completely non-corrosive.

CFSR foam is used for shunting the leads of integrated circuits. Equalizes potential between leads and other ICs to prevent static damage. Completely non-corrosive.

Call for a quote with quantity and size or see our price list.



## ESD AWARENESS LABELS

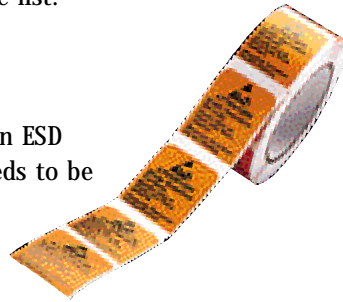
LEGGE offers a peel-off ESD Awareness label for use on ESD shielding bags, boxes or any other container that needs to be marked with the proper ESD symbol.

## ZIPTOP BAGS

### ZIPTOP™ Static Shielding Bag

Reliable and competitively priced static shielding bag for the electronics industry. Over 100 stock sizes for fast shipment. ZIPTOP STATIC SHIELDING BAGS are tested to meet or exceed the electrical and physical requirements of MIL-B-81705C Type III, EIA 541, EIA 625, MIL-HDBK 263, MIL-STD-1686 and EOS/ESD Standards.

Please call for a quote with quantity or size.

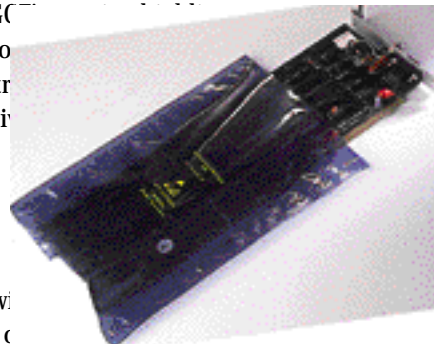


## TRANSPARENT STATIC SHIELDING BAGS

### ITEM #ESDBAGS

Static sensitive components must be protected from ESD while in storage, shipping, assembly and handling operations. LEGGE bags ensure a controlled, non-destructive path to independent of environmental factors. Bag construction consists of a 48-gauge polyester, static dissipative lining and an aluminum shielding layer meets applicable test methods for static decay. Surface resistivity and dielectric strength and shielding effectiveness.

Most sizes are available. Please call for a quote with quantity and size (inside bag dimensions) or see our price list.



## ZIPTOP SHIELDING BAGS

### ELECTRICAL PROPERTIES

Surface Resistivity:	ASTM D257, EIA 541
Interior:	$10^9 - 10^{10}$ ohms/sq.
Metal:	100 ohms
Exterior:	$10^9 - 10^{10}$ ohms/sq.
Static Shielding:	< 30 volts (MIL-B-81705C, EIA 541)
Static Shielding:	< 10 nJ EOS/ESD S11.31
Static Decay:	< 0.05 seconds (MIL-B-81705C, FTMS 101 MTH 4046)
Charge Generation:	
Teflon:	0.09 nC/sq. in. Modified inclined plane
Quartz:	0.01 nC/sq. in.

### PHYSICAL PROPERTIES

Tensile Strength:	> 25 lb (ASTM D 882)
Seam Strength:	Pass (MIL-B-81705C)
Light Transmission:	40% (Tobias)
Heat Sealing Conditions:	
Temperature:	250° F - 375° F
Time:	0.5 - 3.5 seconds
Pressure:	30 - 70 PSI
Thickness:	3.1 mils (SCC 008)
Outgassing:	Pass (ASTM E595)
Non-Corrosive:	Pass (FTMS 101 MTH 3005)

## Need Help?

**Need help with application requirements or have questions about technical specifications? Call and ask for one of our expert customer service representatives. They are standing by to help you.**



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## STATIC CONTROL BASICS

Static electricity is readily identified in everyday life such as getting a shock from the metal portion of a vehicle after sliding across fabric seats or touching a door knob after walking across a carpet. These ELECTROSTATIC DISCHARGES (ESD) occur because objects (your feet and the carpet) have been separated. Atoms near the surfaces of separation will transfer electrons to one another and as a result will either have a surplus of electrons, referred to as a negative charge or a deficiency in electrons, referred to as a positive charge. In addition, rubbing or sliding materials together will increase the amount of charge because a greater number of electrons will come in contact at the surface of the material. In this manner objects are commonly charged to 30,000 volts by walking or transferring materials along an assembly line.

## TYPES OF MATERIALS

The basic types of materials are conductors and insulators. All materials fall within these categories. Insulators do not transfer electrons while conductors freely transfer electrons. However, both types of materials may hold a static charge. When a conductor is charged with surplus electrons it readily discharges when it comes close to another conductor with a different electrical potential. ESD is the spark we feel when we touch the car door after sliding across the fabric seat. The threshold of voltage that a person can feel is generally recognized as 3,000 volts although the voltages that can damage today's sensitive electronics is much lower.

ESD is not a new phenomenon. In the past, any process which involved separation of materials caused static charges. Only until relatively recently has it been anything more than a nuisance for the electronics industry. Both the flammable gas/solvent and explosives industries have been using LEGGE products for over 60 years to control potentially hazardous static discharges. The changing microelectronic industry has made ESD a special problem. As devices get smaller and more circuits are packed in modern microchips they have also become more susceptible to damage by ESD. Some devices may be damaged by a charge as low as 30 volts.

## HOW LEGGE CAN HELP YOU

Control static electricity and prevent ELECTROSTATIC DISCHARGE from degrading your electronic devices or preventing fires or explosions. We manufacture a full line of static control products and can provide professional recommendations for your specific requirements.

## EQUAL POTENTIAL

This will eliminate most problems with ESD. It involves grounding conductors and making non-conductors static dissipative and grounding them as well. The most common form of grounding involves the human body, which is a conductor, but is normally isolated from ground by clothing, shoes, etc.

**Wrist Straps and Foot Grounders**, when used properly, drain static electricity to ground as it occurs preventing static build-up and the associated spark or ESD event from occurring. A person may be grounded with a wrist strap connected to ground or with a common point ground. Foot grounders will create a path to ground when worn on conductive or static dissipative surfaces.

**Conductive and Static Dissipative Coatings** will allow objects that are normally insulators to be made conductive (or static dissipative). Coating normal flooring and work surfaces also facilitates the grounding of these surfaces. (NOTE: It is generally accepted within the static control industry that conductive means within a range from  $10^1$  -  $10^6$  ohms. Static dissipative means  $10^7$  -  $10^{11}$  ohms. Any reading above  $10^{12}$  ohms is referred to as an insulator and will not dissipate electricity). Generally, industries involving explosives or flammable solvents utilize conductive surfaces and items while the electronics industry employs static dissipative items and surfaces. Once flooring and work surfaces have been made conductive or static dissipative, a person may be grounded using foot grounders and connecting to ground via the conductive floor.

Sprays (or Topical Antistats), may be used to control static electricity and dust accumulation in localized areas for shorter periods of time. Static dissipative floor finishes may also be used on vinyl and other types of flooring, providing high gloss, cleanliness and static protection.

# STATIC CONTROL

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