









## Features and Benefits

-  **Embossed finish** reduces glare and prevents parts from slipping
-  **.080" (2mm) thickness** allows mat to remain flat and prevents curled edges
-  **.05 second decay time** ensures rapid, safe static drain
-   **$10^6 - 10^8$  ohms, ohms per cm** for RTT, RTG, and Vol R meets industry electrical specifications in all humidities
-  **Durable surface** withstands high temperatures, solder, flux, and harsh chemicals
-  **Low out gassing and VOC** are ideal for cleanrooms and other controlled environments
-  **No vinyl monomers or DOP** ensures conformity to personal and environmental safety standards
-  **UV additives** provide color stability and prevent fading

# Dualmat™

## Static Dissipative Work Surface Material

This ESD mat is a static dissipative industrial-grade elastomer designed for use on tables and other grounded work bench surfaces. Unlike the competition's surface dissipative mats, the electrical properties of the Dualmat are volume dissipative. This material was developed to conform to the most stringent ESD and lead-free requirements.

Dualmat™ is a chemically cross-linked material with different electrical resistances on each side. Because it is inherently cross-linked the material will not delaminate and is volume conductive. The layers are permanently dissipative with polymers that will not lose electrical properties, will not exudate and more importantly will not outgas and contaminate clean room environments. The material is as durable as rigid laminates, and as comfortable and appealing as softer rubber or vinyl mats. It is suitable for use with constant monitor systems.

Because of its structure, the material meets both the ANSI/ESD S20.20 and European IEC 613450-5-1 specifications. Complying to these standards indicates that this material has outstanding charge dissipation, rapid charge decay, no charge suppression and outstanding low tribogeneration properties. The material will withstand solvents, soldering iron deformation, will not curl and has excellent abrasion resistance. The embossed surface will reduce light glare, increase part slip resistance and facilitate cleaning. Since the material is free from halogens, lead, arsenic, barium, heavy metals, phthalate plasticizers, vinyl monomer, asbestos, formaldehyde, antimony, chromium, cadmium and other dangerous volatiles, it is RoHS compliant and may be used in environments where outgassing and contamination is of concern. This material does not contain substances on the REACH SvHC list.



**ACL Staticide**

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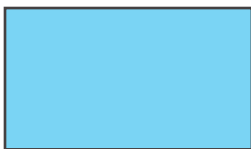
ACL Inc. registered to  
ISO-9001 : 2008  
Certificate NO. 10002746

# Dualmat™

## Static Dissipative Work Surface Material



Available in four colors:



**Light Blue**  
Roll: 8085BR  
Mat: 8085BM



**Green**  
Roll: 8185GR  
Mat: 8185GM



**Royal Blue**  
Roll: 8285RBR  
Mat: 8285RBM



**Dark Gray**  
Roll: 8385DGYR  
Mat: 8385DGYM

**Roll Sizes:** 40' rolls in widths of 24", 30", 36", and 48"

**Mat Sizes:** Each standard and custom size mat comes with two 10mm female snaps. Snaps are located on the top and bottom corners of the short side of the mat.  
mats are screened with "LEAD FREE WORK ENVIRONMENT". Ground cords sold separately.

### Electrical Properties @ 12% Relative Humidity

- ❖ Resistance between two points (RTT) ANSI - ESD S4.1:  
10 volts  $2.1 \times 10^7$  ohms  
100 volts  $1.3 \times 10^7$  ohms
- ❖ Resistance between point-to-ground (RTG) ANSI - ESD S4.1:  
10 volts  $6.1 \times 10^7$  ohms  
100 volts  $5.3 \times 10^7$  ohms
- ❖ Volume Resistivity:  $4.6 \times 10^7$  ohms-cm @ 12% RH (after 48 hours)
- ❖ Decay Time: 100 volts to 500 volts per FTM 101C method 4046, ANSI/ESD S541 Appendix F, EN 100015/DIN 51953
- ❖ Conformance: Meets or exceeds ASTM F-150, NFPA-99, ANSI/ESD STM 7.1, UL-779, EN 100015, DIN 51953, ANSI/ESD S20.20, and IEC-61340-5-1

### Physical Properties

- ❖ Hardness:  $85 \pm 5$  shore A per ASTM D-2240
- ❖ Abrasion Resistance: Tabor abrasion test h-118 wheel (1000 cycles) 500 gram load under .5 grams loss
- ❖ Temperature Resistance: Withstands soldering iron contact at 250°F (121°C)  
Can withstand environmental temperatures up to 600°F (315°C)
- ❖ Cleanability: Clean Dualmats™ with ACL's 6001 Mat & Table Top cleaner
- ❖ Installation: Cut with sharp blade or shears

### Warranty:

ACL Inc., offers an exclusive lifetime warranty on the electrical resistance ( $10^7$  -  $10^9$  ohms) properties of our Dualmat™ table mats. If the electrical properties should fail (when tested to ANSI / ESD S20.20 standards) on any of our table mats during the lifetime of the mat due to manufacturing or physical defects, we will replace the mat free of charge. This warranty does not apply to mats that are abused, improperly used, or cleaned with mat cleaners not tested and approved by ACL Inc.



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