

# Dualmat™ Static Dissipative Work Surface Material

ACL Staticide, Inc. is proud to introduce Dualmat™. This ESD mat is a static dissipative industrial-grade elastomer designed to use on tables and other grounded work bench surfaces. Its electrical properties are volume dissipative unlike the dissipative mats of the competition. 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 both surfaces. 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 cleanroom 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.

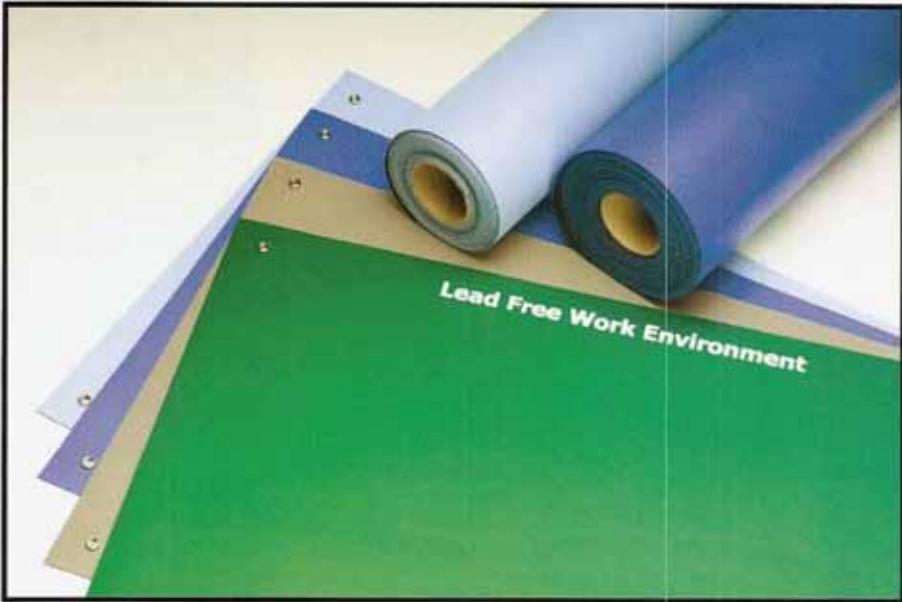
Because of the structure, the material meets both the ANSI/ESD S20.20 and European IEC 61340-5-1 specifications and therefore has outstanding charge dissipation, rapid charge decay, no charge suppression and outstanding low tribogeneration properties. The material will withstand solvents, soldering iron 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 may be used in environments where out gassing and contamination is of concern.

Grounding hardware and snaps available.

For lead-free environments, use green mats or rolls.



ISO 9001:2000  
Reg. to: ACL Inc.  
Cert. No. A3656



Rolls:	Light Blue	Royal Blue	Dark Gray	Green
24" x 40"	8085BR2440	8285RBR2440	8385DGYR2440	8185GR2440
30" x 40"	8085BR3040	8285RBR3040	8385DGYR3040	8185GR3040

Mats:	Light Blue	Royal Blue	Dark Gray	Green
24" x 36"	8085BM2436	8285RBM2436	8385DGYM2436	8185GM2436
24" x 48"	8085BM2448	8285RBM2448	8385DGYM2448	8185GM2448
24" x 60"	8085BM2460	8285RBM2460	8385DGYM2460	8185GM2460
30" x 60"	8085BM3060	8285RBM3060	8385DGYM3060	8185GM3060
24" x 72"	8085BM2472	8285RBM2472	8385DGYM2472	8185GM2472
30" x 72"	8085BM3072	8285RBM3072	8385DGYM3072	8185GM3072

Now available in 36" and 48" widths

# Dualmat™ Static Dissipative Work Surface Material

## Features

Embossed finish  
Reversible (two-sided)  
.080 inch (2mm) thickness  
.05 second decay time  
 $10^6$  -  $10^8$  ohms, ohm per cm  
RTG, RTT, Vol R  
Durable surface  
Low out gassing and VOC  
Low abrasion  
No vinyl monomers or DOP  
UV additives

## Benefits

No glare  
Easy to clean  
Parts will not stick or slide  
Black side ideal for fiber optics  
Durable  
Non-curling corners remain flat  
Rapid, safe static drain  
Meets industry electrical specifications  
in all humidities  
Withstands high temperatures, solder,  
flux, and harsh chemicals  
Ideal for cleanrooms and other  
controlled areas  
Environmental, personnel safety and  
conformance  
Color stability (will not fade)

## Uses & Applications

Electronic manufacturing  
Cleanroom  
Fiber optics  
Defense and military  
Explosives  
Aviation  
Pharmaceutical plants  
Computer installation  
Hospitals  
Chemical processing  
Printing

## Technical Specifications

### Electrical properties @ 12% Relative humidity

#### RTT Resistance between two points

$2.1 \times 10^7$  ohms @ 10 volts / ANSI/ESD S4.1  
 $1.3 \times 10^7$  ohms @ 100 volts / ANSI/ESD S4.1  
DIN 51953, IEC-61340-2-3

#### RTG Resistance between point to ground

$6.1 \times 10^7$  ohms @ 10 volts / ANSI/ESD S4.1  
 $5.3 \times 10^7$  ohms @ 100 volts / ANSI/ESD S4.1

#### Volume Resistivity

After 48 hours @ 12% RH  $4.6 \times 10^7$  ohms-cm

#### Decay time

100 volts to 50 volts per FTM 101C method 4046,  
ANSI/ESD S541 Appendix F, EN 100015/DIN 51953

Meets or exceeds ASTM F-150, NFPA-99, ANSI/ESD  
STM 7.1, UL-779, EN 100015, DIN 51953, ANSI/ESD  
S20.20IEC-61340-5-1

### Physical Characteristics

**Hardness:** 85+/- 5 Shore A per ASTM D-2240

**Abrasion Resistance:** Tabor abrasion test h-18 wheel  
(1000 cycles) 500 gram load. Under .5 grams loss

**Surface Texture:** Low glare for user comfort

**Temperature Resistance:** Withstands soldering iron contact

**Cleanability:** Mild cleaning solution such as ACL Mat &  
Table Top Cleaner

**Installation:** Sharp blade, or scissors

**RoHS compliant**

**ACL Staticide**  
Specialists in Static Control

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**ACL Staticide, Inc. Dualmat™ Warranty:** ACL Staticide, Inc. offers an exclusive lifetime warranty on the electrical resistance ( $10^7$  -  $10^8$  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 Staticide, Inc.