

## Dualmat<sup>TM</sup> Static Dissipative Work Surface Material

ACL Staticide, Inc. is proud to introduce Dualmat<sup>TM</sup>. 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<sup>TM</sup> 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, cadium and other dangerous volatiles, it may be used in environments where out gassing and contamination is of concern.

Rolls:

Light Blue



Grounding hardware and snaps available.

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



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	8385DGYM242	8185GM2436
24" x 48"	8085BM2448	8285RBM2440	1 40" widths	8185GM2448
24" x 60"	8085BM2465	stable in 36	and 40 wild	8185GM2460
30" x 60"	8085BM3 NOW	granic	"and 48" widths 8385DGYM3060	8185GM3060
24" x 72"	8085BM24	8285RBM2472	8385DGYM2472	8185GM2472
30" x 72"	8085BM3072	8285RBM3072	8385DGYM3072	8185GM3072

**Royal Blue** 

Dark Gray

Green

## Dualmat<sup>™</sup> 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

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)

## **Technical Specifications**

Electrical properties @ 12% Relative humidity

**RTT Resistance between two points** 

2.1 x 10<sup>7</sup> ohms @ 10 volts / ANSI/ESD S4.1 1.3 x10<sup>7</sup> ohms @ 100 volts / ANSI/ESD S4.1 DIN 51953, IEC-61340-2-3

RTG Resistance between point to ground

6.1 x 10<sup>7</sup> ohms @ 10 volts / ANSI/ESD S4.1 5.3 x 10<sup>7</sup> ohms @ 100 volts / ANSI/ESD S4.1

**Volume Resistivity** 

After 48 hours @ 12% RH 4.6 x 10<sup>7</sup> 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

## Uses & Applications

Printing

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

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ACL Staticide, Inc. Dualmat<sup>TM</sup> Warranty: ACL Staticide, Inc. offers an exclusive lifetime warranty on the electrical resistance  $(10^7 - 10^9 \text{ ohms})$  properties of our Dualmat<sup>TM</sup> 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.