

# **Ultimat™** Static Dissipative Work Surface Material

## Description

Ulimat™ is a new technology static dissipative industrial grade elastomer designed for use on tables and other grounded work bench surfaces. Its electrical properties are volume dissipative unlike many of the surface dissipative properties of the competition. This material was developed to conform with the new Class Zero requirements. Static Solutions has introduced more new products during the past 7 years than any other ESD company. The tradition continues.

Ultimat™ is a chemically crosslinked material with different electrical resistances on both surfaces. Because it is inherently crosslinked the material will not delaminate and is volume conductive. The layers are permanently dissipative with 'space age dissipative polymers" which will not lose its electrical properties, not exudate, and more important will not outgas and



contaminate in clean room environments. The material is as durable as rigid laminates and as comfortable and appealing as the softer rubber table mats. Works great with continuous monitors.

Because of its structure the material meets both the US EOS 20/20 and European IEC 613450-5-1 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, not curl, and have 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 outgassing and contamination is of concern.

### **Property**

Embossed finish
Reversible
.080 inch (2mm) thickness
.05 sec, decay time
10 <sup>6</sup>- 10 <sup>8</sup> ohms, ohm-cm,
RTG, RTT, Vol R
Available in blue, gray, beige
Widths: 24 and 48 inches

Lengths: 40 feet
Durable surface

Low outgassing and VOC

Low abrasion

No vinyl monomers, or DOP

**UV** Additives

## **Benefit**

**Color Stability** 

No glare, easy cleaning, no part sticking One side colored, other side black. Ideal for fiber optics Durability, non curling, lays flat Rapid, safe static drain

Meets all electrical specifications-all humidities
Aesthetically appealing, other colors available
Fits all benches. Other widths available
Easy to cut and ship to weight limitations
Will withstand temperature, solder, flux, and harsh chemicals
Ideal for cleanrooms and other controlled areas
Durability
Environmental and personnel safety and conformance

Roll dimensions: 48" wide by 40 feet long and 24"wide by 40 feet long

Mat sizes: 24" by 16", 24" by 48", 30" by 48", 36" by 48" Colors: Blue, beige, grey, Other colors available

## Ultimat™ ESD Dissipative Work Surface Material

- When quality is critical especially with the new Class Zero concerns.
- When service and creditability are important and critical.
- When satisfaction and quality is important.
- When technical support and customer service is important.
- When adequate inventory levels are important.
- When a national distributor network and one stop ESD shopping is important.
- When you want a company who has introduced more new products and have presented more technical papers at the prestigious EOS Symposium.



Manufacturing Process

#### Then select ULTIMAT<sup>TM</sup>.

## Electrical properties @12% Relative humidity

#### RTT Resistance between two points

2.1 X  $10^7$  ohms @ 10 volts / EOS std S-4 1.3 X  $10^7$  ohms @ 100 volts/ EOS std S-4 DIN 51953, IEC-61340-2-3

#### RTG Resistance between point to ground

6.1 X  $10^7$  ohms @10 volts/EOS std S-4 5.3 X  $10^7$  ohms @ 100 volts/EOS std S-4 DIN 51953, IEC-61340-2-3

#### Volume Resistivity

After 48 hours@12% RH 4.6 X 10<sup>7</sup> ohm-cm.

#### Decay time

100 volts to 50 volts per Per FTM 101C method 4046, EIA 541 Appendix F, EN 100015/DIN 51953

Meets or exceeds ASTM F-150, NFPA-99, ESD S7.1, UL-779, EN 100015, DIN 51953, EOS 20/20, IEC-61340-5-1

#### **Physical Characteristics**

#### Hardness

85+/- 5 Shore A per ASTM D-2240

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

Surface Texture: Low glare for user comfort

Outgassing: Excellent

Chemical Resistance: Withstands solvent

exposure

U.V. Stability: Excellent

**Temperature Resistance:** Withstands soldering iron contact

**Colors:** Blue, beige, gray. Other colors available with minimums.

Cleanability: Mild cleaning solution such as Ohm-Cide, MC-4500, Cl-9001

Width: 24 Inches, 48 inches.

Length: 40 foot roll. Snaps and ground

cords available.

Thickness: .080 inches. 2.0 mm.

Lies flat, no curl

Installation: Sharp blade, or scissors.

## Uses and Applications

- Electronics manufacturing
- Pharmaceutical plants
- Clean rooms
- Computer installation
- Fiber Optics
- Hospitals
- Defense and military
- Chemical processing
- Explosives
- Printing
- Aviation

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