

# Ultimat™ II Static Dissipative Low Cost Work Surface Material

## Description

Ultimat™ II is a low cost new technology static dissipative industrial grade elastomer designed for use on tables and other grounded work bench surfaces. The formula is based on the original ULTIMAT. Its electrical properties are volume dissipative unlike many of the surface dissipative properties of the competition. This material was developed to conform to 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™ II is a low cost, 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 '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  
.060 inch (1.5 mm) thickness  
.05 sec, decay time  
 $10^6$ - $10^8$  ohms, vol. ohm-cm,  
RTG, RTT, Vol R  
Available in light blue, dark blue  
And, gray,  
Widths: 24, 30, 36 and 48 inches  
Lengths: 40 feet  
Durable surface  
Low outgassing and VOC  
Low abrasion  
No vinyl monomers, or DOP  
UV Additives

## Benefit

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 humidity's  
  
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  
Color Stability

Roll dimensions: 24", 30", 36" and 48" wide by 40 feet long  
Mat sizes: 24"x48" or call for custom sizes  
Colors: Light blue, dark blue, grey, other colors available upon request

**5228 US Hwy 421 N  
Wilmington, NC 28401**

**All-Spec  
www.all-spec.com  
sales@all-spec.com**

**PH: 800-537-0351  
FX: 800-379-9903**

# Ultimat™ II Low Cost ESD Dissipative Work Surface Material

## Why Choose Static Solutions?

- 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 call Static Solutions.

## Then select ULTIMAT II. Only from Static Solutions.

**Warranty:** Static Solutions, Inc. expressly warrants that for a period of (1) one year from the date of purchase any Static Solutions, Inc. product will be free of defects in materials and will function within its specifications. Within the warranty period, the product will be repaired or replaced at Static Solutions, Inc.'s option with no cost to the customer as long as



**Manufacturing Process**

### Electrical properties @12% Relative humidity

#### RTT Resistance between two points

3.6 X 10<sup>7</sup> ohms @ 10 volts / EOS std S-4  
5.4 X 10<sup>7</sup> ohms @ 100 volts/ EOS std S-4  
DIN 51953, IEC-61340-2-3

#### RTG Resistance between points to ground

7.7 X 10<sup>7</sup> ohms @ 10 volts/EOS std S-4  
5.9 X 10<sup>7</sup> ohms @ 100 volts/EOS std S-4  
DIN 51953, IEC-61340-2-3

#### Volume Resistivity

After 48 hours@12% RH 656 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:

75+/- 5 Shore A per ASTM D-2240

**Abrasion Resistance:** Taber abrasion test  
H-18 wheel (1000 cycles) 500 gram load.  
Under 10 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, flame retardant

**Colors:** Light blue, dark blue and gray.  
Other colors available with minimums.

**Clean ability:** Mild cleaning solution such as  
Ohm-Cide, MC-4400, CL-5001

**Width:** 24", 30", 36", 48 "

**Length:** 40 foot roll. Snaps and ground  
cords available.

**Thickness:** .060 inches. 1.5 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

Static Solutions, Inc. receives notice during the warranty period. Defective products must be shipped prepaid to Static Solutions, Inc.'s factory. Call Static Solutions, Inc. customer service at 978.310.7251 for a return authorization number. Include a copy of the invoice, packing slip, or other proof of purchase.

**Warranty Exclusion:** The foregoing express warranty is made in lieu of other product warranties express and implied, including merchantability and fitness for a particular purpose which are specifically or indirectly disclaimed. The express warranty will not apply to defects or damage due to neglect, misuse, accidents, alterations, operator error, failure to properly maintain, follow instruction, or failure to clean or repair products.

**Limit of Warranty:** In no event will Static Solutions, Inc. or seller be responsible or liable for special, incidental or consequential losses or damages, whether based on tort, contract, or the use of or inability to use, the product. Before using the product users shall determine the suitability of the product for their intended use. The users assume all risk and liability whatsoever in connection therewith. Fulfillment of Static Solutions, Inc.'s warranty obligations will be the customer's exclusive remedy and Static Solutions, Inc. and seller's limit of liability for any breach of warranty or otherwise.

*For additional OHM-SHIELD™ product literature,  
call or fax the Static Solutions, Inc. sales department*

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