



## ESD Black Two Layer Shelving Material

KSMBK

### Description

This 2-layer black shelving material is manufactured for use in storage areas. It is designed to provide excellent protection against harmful static charges. The material is 2mm thick and is available in various sizes. It has a static-dissipative surface with a conductive backing, giving a typical resistance to ground of  $10^6 - 10^7$  ohms. The dissipative top layer is resistant to abrasion, heat, solders flux and most commonly used solvents. The black conductive bottom layer provides a superior and consistent ground path.

The smooth texture can be easily cleaned and maintained. The product is also certified for ROHS and REACH regulations. Additionally, the product complies with EN 61340-5-1 and ANSI 20.20 standards.

### Features

- Rugged synthetic rubber material.
- Colour: Black with a textured finish.
- Thickness - 0.076 (2.00mm).
- UV resistance - No major disc.
- No curling, no pin-holes, and no irritant odor.
- Halogen-free.
- Stud force: 6KG/ 59cm (Recommended).
- Scratch resistant - No clear scratch and well recovery.
- Heat resistance - Resist holds irons and hot paste, rubber doesn't melt if in contact with hot metal parts and soldering debris.
- Complies with EN 61340-5-1 and ANSI 20.20 standards.
- ROHS and REACH compliant.



Black colour with a textured surface finish

### Cleaning

For optimum electrical performance, the surface must be cleaned regularly using an ESD safe mat cleaner. We suggest using a Staticide surface cleaner for best cleaning results. This will maintain the original resistivity of the anti-static mat whilst extending its shelf-life.

### Standards

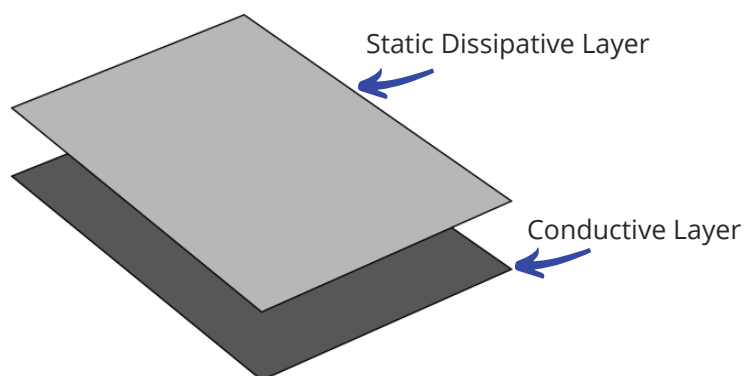
This meets the requirements of EN 61340-5-1 and ANSI 20.20 standards.





## ESD Black Two Layer Shelving Material

KSMBK



### Construction

The product is made up of two layers; the top layer has a static dissipative surface and the bottom layer has a conductive backing.

### Standard Roll Sizes

- 0.4m x 10m long
  - 0.6m x 10m long
  - 1.2m x 10m long
  - 4ft x 2ft long
- Custom size requests available.

### Physical Properties

### Typical Values

Density	1,4 ± 1,02 g/cm <sup>3</sup>	DIN53479
Abrasion (5N load)	130mm <sup>3</sup>	DIN 53516
Hardness	80 Shore A	DIN53505
Impression Test	0,1 mm	DIN51955
Thickness	0.076 (2.00mm)	
Scratch Resistance	No clear scratch and well recovery.	
UV Resistance	No major disc	
Stud Force	6KG/ 59cm (Recommended)	
Heat Resistance	Resist holds irons and hot paste, rubber doesn't melt if in contact with hot metal parts and soldering debris.	

### Electrical Properties

### Typical Values & Requirements

Point to point resistance Rp	10 <sup>6</sup> – 10 <sup>7</sup> Ω 1 x 10 <sup>4</sup> ≤ Rp ≤ 1 x 10 <sup>10</sup> Ω EN 61340-5-1
Resistance to groundable point RG	10 <sup>6</sup> – 10 <sup>7</sup> Ω 7,5 x 10 <sup>5</sup> ≤ RG ≤ 1 x 10 <sup>9</sup> Ω EN 61340-5-1
Charge Decay	< 0.1 sec per FTMS 101C, M4046, TB-WINT-0008
Charge Generation	< 100 volts per ANSI/ ESD STM4.2





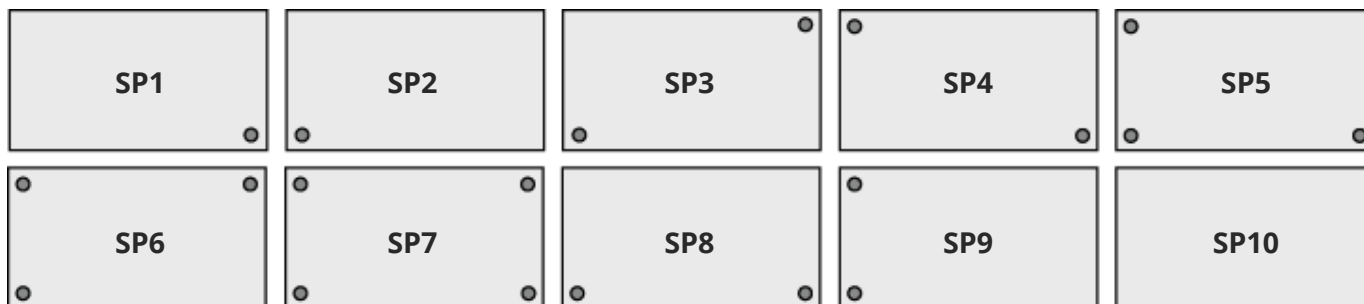
## ESD Black Two Layer Shelving Material

KSMBK

Mechanical Properties	Typical Values
Room Temperature	21°C
Humidity	62%

Property	Top Layer	Bottom Layer
300% tensile strength	3.7Mpa	3.7Mpa
Breaking strength	18.7Mpa	3.7Mpa
Elongation at break	690Mpa	250Mpa
Hardness	66°	80°

### Stud Position

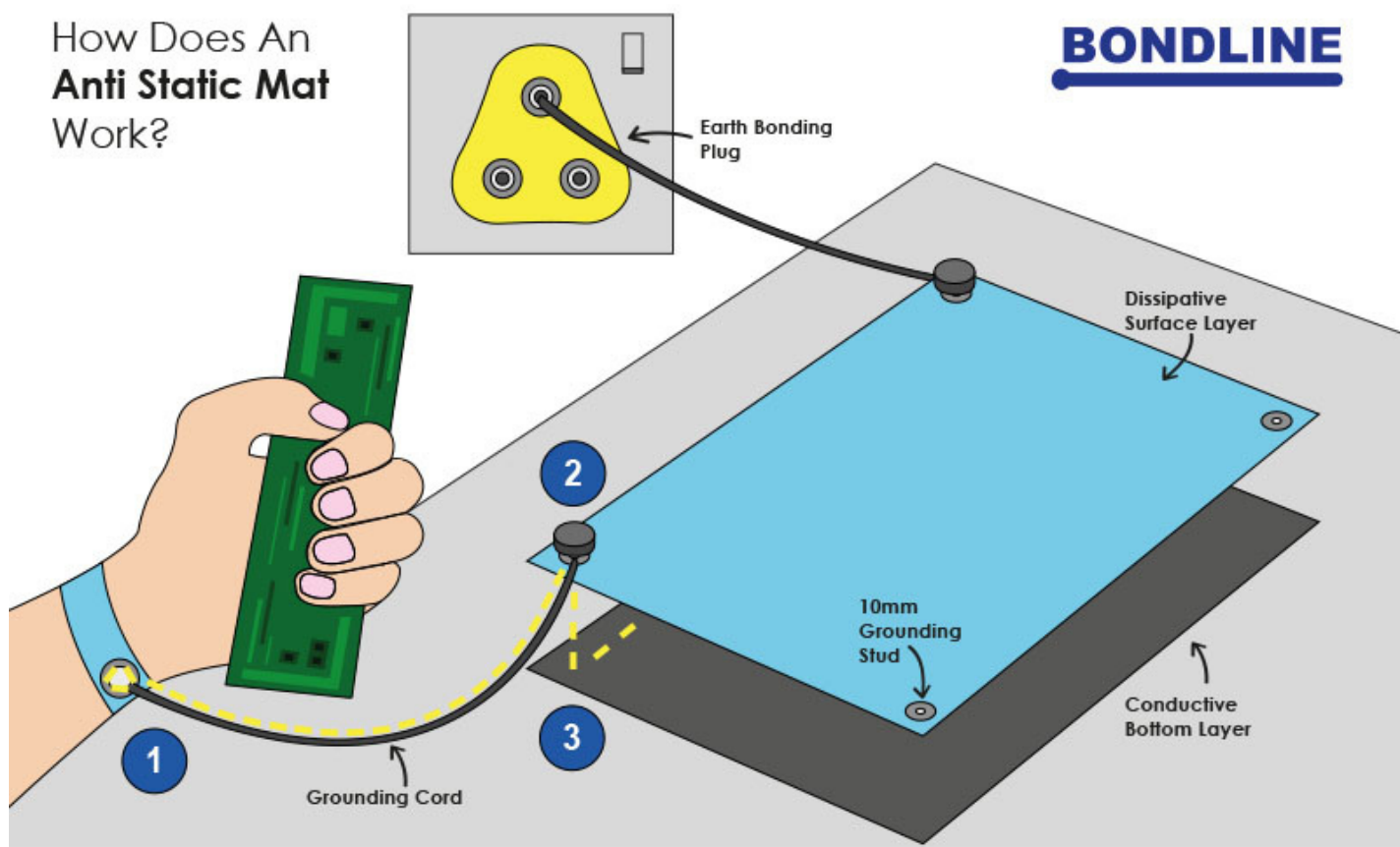




## ESD Black Two Layer Shelving Material

KSMBK

How Does An  
Anti Static Mat  
Work?



- 1 Operator is grounded as charge passes through the wrist strap into the coil cord.
- 2 Coil cord is connected to the 10mm grounding stud.
- 3 The static charge passes through the mat, through the grounding lead to earth.





## ESD Black Two Layer Shelving Material

KSMBK

### Customised Matting Process

We provide a premium service of bespoke custom sizing and studding for our bench matting to suit all customer requirements. If you would like bespoke customisation, please make an enquiry to us.



### Matting Stock

Our matting is currently stocked in our warehouse and is safely stored. Our matting is stocked on a regular basis to ensure we can support our customers' needs.



*Important Notice: The information contained within this spec sheet is for guidance only. We make no warranties expressed or implied and assume no liability regarding any use of this information. ESD Black Two Layer Shelving Material, March 25th 2021.*