

**PRODUCT**

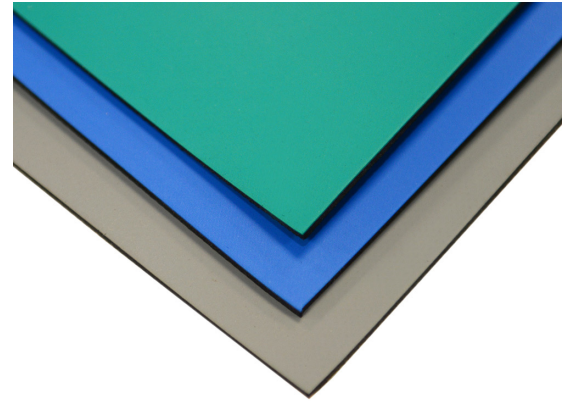
# ESD Bench Matting - 2 Layer - Smooth Finish

**TECHNICAL DATASHEET**

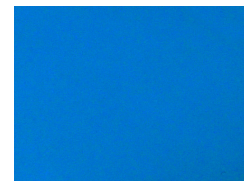
Antistatic matting can be laid out in the workshops or advanced laboratories for microelectronic industries such as electronic semiconductor devices, electronic computers, electronic communication equipment and integrated circuits etc.

**FEATURES**

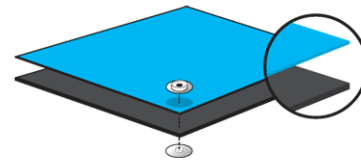
- Great value ESD Bench Matting
- Made from antistatic (conductive) and static-dissipative materials with synthetic rubber
- 2mm thick double-layer structure
- Surface layer is a 0.5mm thick static-dissipative layer
- Bottom layer is a 1.5mm conductive layer
- 10mm studs on each corner
- Available in blue



**COLOUR**



BLUE



Static Dissipative Layer

Conductive Layer

PRODUCT CODE	DESCRIPTION	SIZE (METRIC)	COLOUR
082-0028F	ESD Bench Matting - 2 Layer, Smooth Finish with 10mm Stud in each corner	600mm x 1200mm	Blue
082-0028F2	ESD Bench Matting - 2 Layer, Smooth Finish with 10mm Stud in each corner	600mm x 900mm	Blue
082-0028F4	ESD Bench Matting - 2 Layer, Smooth Finish with 10mm stud in bottom right	1200mm x 3300mm	Blue

To request a quotation or for more information, please call **+44 (0)1473 836200**  
email [info@antistat.co.uk](mailto:info@antistat.co.uk) or visit [www.antistat.co.uk](http://www.antistat.co.uk)

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## Grounding

Sufficient ground cords should be used to reliably meet EN 61340-5-1 Table 3: less than  $1 \times 10^9$  ohms for working surfaces. Industry recommendation is that continuous runs of ESD matting should be grounded at 10ft intervals to allow proper charge decay rates. Each individual ESD mat should be grounded with ground snaps located no further than five feet from either end.

## Cleaning

Please note that contact between the matting surface and any acid or alkali solvent is strictly prohibited (such as Benzene, Alcohol etc), this will result in the antistatic performance degrading. If cleaning is required, the matting may be wiped with a cloth coated in a neutral solution (such as water).

## Guidance on use

Matting materials have a tendency to shrink slightly when first unrolled. In applications where length is critical, allow the material to relax for at least 4 hours before cutting to size. Matting should always be trimmed with a sharp knife or razor blade.

## Cutting tolerances

- Width  $\pm$  6mm
- Length  $\pm$  6mm every linear foot of running material

## RoHS Compliance

None of the following materials are intentionally added in manufacturing this product: lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE) as outlined in the Directive 2002/95/EC Article 4.1.

## Material

### Top layer dissipative:

- Nitrile - Butadiene rubber
- Antistatic agent

### Bottom layer conductive:

- Perbunan
- Super conductive carbon black
- Antioxidant
- Zinc oxide

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## TEST RESULTS

	TEST METHOD	UNIT	VALUE
Surface Resistance / $R_{TG}$	SJ/T10694-2004	Ohms	$1 \times 10^6 \leq R \leq 1 \times 10^9$
Bottom Resistance / $R_{TT}$	SJ/T10694-2004	Ohms	$1 \times 10^3 \leq R \leq 1 \times 10^6$
Volume Resistance	GB/T14437-97	Ohms	$1 \times 10^5 \leq R \leq 1 \times 10^8$
Thickness	YY-1001	mm	Permissible Tolerance +0.1
Temperature Resistance	YY-1001	°C	180 (Instantaneous Temp)
Temperature	N/A	°C	20-26
Relative Humidity	N/A	%	40-65

$R_{TG}$  is the resistance from one point on the mat's surface to the mat's ground point, and is the fundamental electrical test for a mat. A proper  $R_{TG}$  insures that a mat can conduct charge from a point on the surface to the mat ground point. The guideline in ESD STM-4.1 for RTG is  $1 \times 10^6$  to  $1 \times 10^9$  Ohms. ANSI/ESD S-20.20 has an upper limit of  $<1 \times 10^9$  Ohms.

$R_{TT}$  is the resistance from one point on the mat's surface to another point. A proper  $R_{TT}$  insures the consistency of the mat's resistance properties. The ESD STM-4.1 guideline for  $R_{TT}$  is  $>1 \times 10^6$  Ohms.

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