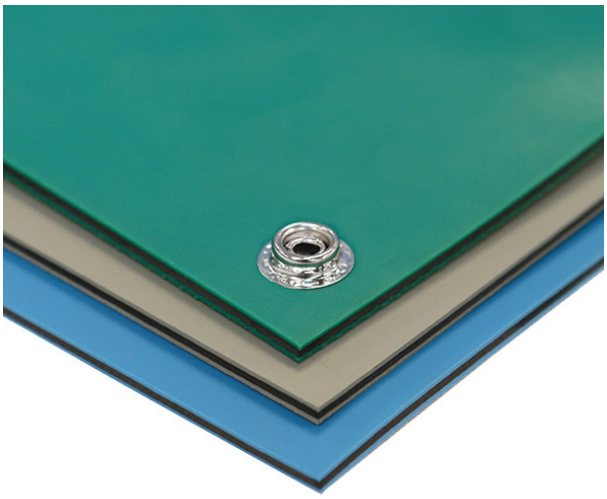
ANTISTAT™
ESD & PRODUCTION CONSUMABLES



PRODUCT

Smooth Antistatic Matting - 3 Layer

TECHNICAL DATASHEET

DESCRIPTION

Our 3 Layer Antistatic Mat provides excellent ESD protection. The mat is easy to clean and has excellent lay flat properties for a flat work surface. It is also supplied with a 10mm press stud in each corner.

This matting is designed to be volume conductive across the whole surface layer and has a buried conductive middle layer which improves the electrical properties by acting as a fast track to move static charge to ground. It is specifically developed so that when the top surface is “dirty” the mat can be flipped over with no loss of performance, which can double the usable life span.

COLOURS

Green

Grey

Blue

FEATURES

- Great value ESD Bench Matting made from antistatic (conductive) and static-dissipative materials with synthetic rubber
- Sold both pre-cut and in 12m rolls
- Suitable for both ESD workbenches and EPA floor areas

PRODUCT CODE	DESCRIPTION	SIZE (METRIC)	SIZE (IMPERIAL)	COLOUR	UNIT
082-0310	ESD Bench Matting - 3 Layer - Smooth	1.2m x 12m	3.9ft x 39.4ft	Green	Roll
082-0311	ESD Bench Matting - 3 Layer - Smooth	1.2m x 12m	3.9ft x 39.4ft	Grey	Roll
082-0312	ESD Bench Matting - 3 Layer - Smooth	1.2m x 12m	3.9ft x 39.4ft	Blue	Roll
082-0317	ESD Bench Matting - 3 Layer - Smooth	600mm x 1.2m	23.6in x 3.9ft	Green	Pre-Cut
082-0318	ESD Bench Matting - 3 Layer - Smooth	600mm x 1.2m	23.6in x 3.9ft	Grey	Pre-Cut
082-0319	ESD Bench Matting - 3 Layer - Smooth	600mm x 1.2m	23.6in x 3.9ft	Blue	Pre-Cut
082-0320	ESD Bench Matting - 3 Layer - Smooth	1.2m x 1.8m	3.9ft x 5.8ft	Blue	Pre-Cut
082-0321	ESD Bench Matting - 3 Layer - Smooth	1.2m x 1.8m	3.9ft x 5.8ft	Grey	Pre-Cut

Note: *All pre-cut matting is sold with 4 studs in each corner as standard*

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

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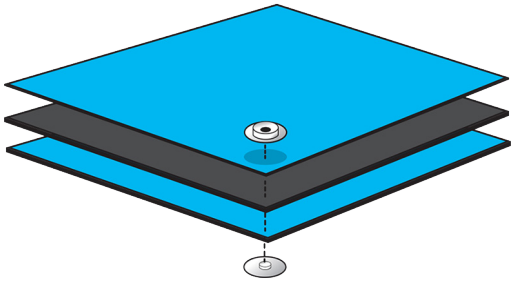
Static Dissipative Layer
Conductive Layer
Static Dissipative Layer

LAYERS



- 3 layer structure
- Top and bottom surface layer is a 1.25mm thick static dissipative layer
- Middle layer is a 0.5mm conductive layer

MAINTENANCE

Grounding

Sufficient ground cords should be used to reliably meet EN 61340-5-1 Table 3, less than 1 x 10^9 ohms for working surfaces. The 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 ± 6mm

Length ± 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.

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TEST RESULTS

	TEST METHOD	UNIT	VALUE
Surface Resistance / R_{TG}	SJ/T10694-2004	Ohms	$1x10^6 \leq R \leq 1x10^9$
Bottom Resistance / R_{TT}	SJ/T10694-2004	Ohms	$1x10^3 \leq R \leq 1x10^6$
Volume Resistance	GB/T14437-97	Ohms	$1x10^5 \leq R \leq 1x10^8$
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 $1x10^6$ to $1x10^9$ Ohms. ANSI/ESD S-20.20 has an upper limit of $<1 x10^9$ 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 $>1x10^6$ Ohms.

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