ESD Bench Matting
Smooth Finish – Grey

Features:
Anti-static matting should be laid out in the workshops or advanced laboratories for microelectronic industries such as electronic semi-conduct devices, electronic computers, electronic communication equipment and integrated circuits etc.

- Great value ESD Bench Matting
- Made from anti-static (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
- Asian origin
- Green and Grey colours also available
- Stud Size : 10mm

Construction:

Colours / Finish:
Grey

Part Number Table

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
<th>Mat Size</th>
<th>Additional Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1503199</td>
<td>ESD Bench Matting - Smooth Finish with 4 studs to each corner</td>
<td>600mm × 1,200mm</td>
<td>Grey (Ref: 082-0034F)</td>
</tr>
</tbody>
</table>
**ESD Bench Matting**

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**Grounding:**
Sufficient ground cords should be used to reliably meet EN 61340-5-1 Table 3 less than 1 × 10⁹ 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 wearing away. 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.

**Test Results:**

<table>
<thead>
<tr>
<th>Test Method</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface Resistance / $R_{TG}$</td>
<td>$\Omega$</td>
<td>$1 \times 10^6 \leq R \leq 1 \times 10^9$</td>
</tr>
<tr>
<td>Bottom Resistance / $R_{TT}$</td>
<td>$\Omega$</td>
<td>$1 \times 10^3 \leq R \leq 1 \times 10^6$</td>
</tr>
<tr>
<td>Volume Resistance</td>
<td>$\Omega$</td>
<td>$1 \times 10^3 \leq R \leq 1 \times 10^8$</td>
</tr>
<tr>
<td>Thickness</td>
<td>mm</td>
<td>Permissible Tolerance +0.1</td>
</tr>
<tr>
<td>Temperature Resistance</td>
<td>°C</td>
<td>180 (Instantaneous Temp)</td>
</tr>
<tr>
<td>Temperature</td>
<td>°C</td>
<td>20-26</td>
</tr>
<tr>
<td>Relative Humidity</td>
<td>%</td>
<td>40-65</td>
</tr>
</tbody>
</table>

$R_{TG}$ 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 $R_{TG}$ is $1 \times 10^6$ to $1 \times 10^9 \Omega$. ANSI/ESD S-20.20 has an upper limit of <1 × 10⁶Ω.

$R_{TT}$ 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 $>1 \times 10^5 \Omega$.

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