ESD Safe Toothbrush-Style Plastic Brushes

These static dissipative brushes are ideal for use in most any situation where Electro-Static Discharge is a concern and/or where antistatic brushes are required. This would include cleaning, scrubbing or dusting sensitive electronic circuitry in any of today’s sophisticated ESD workstations and/or in potentially explosive applications where a static discharge spark could be a serious problem. Destructive surface charges do not build up, since they quickly and safely dissipate through the grounded technician in a controlled manner during use. The brushes are compliant with both EN 61340-5-1 and the EOS/ESD Association Inc. recommendations for static controlled environments.

Available in 3 bristle stiffness options (medium-soft, medium and stiff). Each includes a bent conductive plastic handle with finger grips and hang-up hole. The handle is securely staple set with yellow abrasion resistant static dissipative Nylon filament in a 3 row (7-6-7) staggered tuft pattern. Each handle displays the universal ESD safe logo in bright yellow epoxy ink.

<table>
<thead>
<tr>
<th>Part #</th>
<th>Stiffness</th>
<th>Fill Material</th>
<th>Trim</th>
<th>3 Rows</th>
<th>Handle (L x W)</th>
<th>Brush Face (L x W)</th>
</tr>
</thead>
<tbody>
<tr>
<td>21N-ESD-LT</td>
<td>Med-Soft</td>
<td>Yellow .010&quot; Static Dissipative Nylon 6.12</td>
<td>3/4&quot;</td>
<td>7-6-7</td>
<td>7-3/16&quot; x 7/16&quot;</td>
<td>1-3/8&quot; x 1/4&quot;</td>
</tr>
<tr>
<td>21N-ESD</td>
<td>Medium</td>
<td>Yellow .010&quot; Static Dissipative Nylon 6.12</td>
<td>7/16&quot;</td>
<td>7-6-7</td>
<td>7-3/16&quot; x 7/16&quot;</td>
<td>1-3/8&quot; x 1/4&quot;</td>
</tr>
<tr>
<td>21N-ESD-016</td>
<td>Stiff</td>
<td>Yellow .016&quot; Static Dissipative Nylon 6.12</td>
<td>7/16&quot;</td>
<td>7-6-7</td>
<td>7-3/16&quot; x 7/16&quot;</td>
<td>1-3/8&quot; x 1/4&quot;</td>
</tr>
</tbody>
</table>

Technical Information

- **Handle Material:** Carbon filled Polypropylene, Black, Non-slothing, Electrically Conductive
- **Electrical Resistance:** Per ANSI/ESDA STM11.12 Volume Resistance test standards for static dissipative materials:
  - Required:  $1 \times 10^4$ to $1 \times 10^{11}$ Ω (ohms)
  - Typical:  $1 \times 10^4$ to $1 \times 10^9$ Ω (ohms)
- **Bristle Material:** Non-carbon filled Nylon 6.12, Yellow, Non-slothing, Static Dissipative
- **Electrical Resistance:** Per ANSI/ESDA STM11.12 Volume Resistance test standards for static dissipative materials:
  - Required:  $1 \times 10^4$ to $1 \times 10^{11}$ Ω (ohms)
  - Typical:  $1 \times 10^8$ to $1 \times 10^{10}$ Ω (ohms)
- **Brush Assembly:** Resistance measured with the brush face flat on a conductive plate and through the handle.
- **Electrical Resistance:** Per IEC 61340-5-1 Resistance to Ground Point (Rg), for hand held brush.
  - Required:  $R_g < 1 \times 10^{12}$ Ω (ohms)
  - Typical:  $1 \times 10^8$ to $1 \times 10^{10}$ Ω (ohms)
- **Static Decay:** Static Decay is the time required to dissipate 90-99% of an initial charge of +/- 5000V.
  - Method:  A charge is induced on to the sample via electrode contact, and then grounded. An electronic voltmeter makes electrostatic (non-contact) measurement of the charge on the sample.
  - Results:  Charge Decay at 70°F, 29% r.h.
    - $5000V \rightarrow 50V = 2.06$ Sec., $-5000V \rightarrow -50V = 1.53$ Sec. (1.8 Seconds Average)

**Max. Use Temps:** 175°F Continuous, 250°F Short Term

**Declarations:**
- RoHS 3 Compliant
- REACH Compliant

**Compatible Sterilization:**
- Steam Autoclave
- EtO (Ethylene Oxide)

Note: We believe all information on this document to be true and reliable but make no warranty to its correctness and assume no liabilities.


Gordon Brush Mfg. Co., Inc.  3737 Capitol Avenue  City of Industry, CA 90601-1732  www.gordonbrush.com