**Metal Rubber™ Electrodes**

**NSM-MR-02-E5 (pack of 5)**

**NSM-MR-02-E1 (1 sample)**

**Product Description**
Metal Rubber™ is a unique self-assembled nanocomposite that combines the high electrical conductivity of metals with the low mechanical modulus of elastomers. Self-assembly processing allows the simultaneous modification of both conductivity and modulus during manufacturing. A range of mechanical properties is available upon special order. NSM-MR-02-E series is comprised of:

- Noncorrosive gold
- Low glass transition temperature ($T_g$) polymer matrix resin (-60 °C)

**Applications for Electrodes**
Metal Rubber has been demonstrated in a wide range of applications including, but not limited to: large mechanical deformation electrodes, mechanically flexible electrical interconnects, and lightweight, durable, conformal electromagnetic shielding.

**Material Properties**

<table>
<thead>
<tr>
<th>Material Properties</th>
<th>Typical Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheet resistance:</td>
<td>1.0 to 10.0 Ω/□</td>
</tr>
<tr>
<td>Mechanical strain (percent elongation):</td>
<td>225 to 250 %</td>
</tr>
</tbody>
</table>

**Standard Product Information**

<table>
<thead>
<tr>
<th>Product Number</th>
<th>Description</th>
<th>Dimensions</th>
<th>ASTM</th>
<th>Thickness</th>
<th>Delivery Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSM-MR-02-E5</td>
<td>Pack of 5 Rectangular Electrodes</td>
<td>1.5” x 0.5”</td>
<td>D 882</td>
<td>0.5 mm ± 0.2 mm</td>
<td>1-2 weeks</td>
</tr>
<tr>
<td>NSM-MR-02-E1</td>
<td>1 Rectangular Electrode Sample</td>
<td>1.5” x 0.5”</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NSM-MR-02-E5 may have visual anomalies that do not affect material properties.
NSM-MR-02-E1 may be slightly imperfect in size and/or color, but the physical properties are the same.

**Product Information**
For additional product information, please contact a NanoSonic sales representative:
Phone: 540.626.6266
E-mail: sales@nanosonic.com

NanoSonic, Inc., 158 Wheatland Drive, Pembroke VA 24136, (phone) 540.626.6266, [www.nanosonic.com](http://www.nanosonic.com)

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