



*NanoSonic, Inc*

PRODUCT INFORMATION

www.nanosonic.com

## Metal Rubber™ Sheet

NSM-MR-03-S1-06

NSM-MR-03-S1-12

NSM-MR-02-E1

### 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 conductivity and modulus during manufacturing. A range of mechanical properties is available upon special order. NSM-MR-03-S1 is comprised of:

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



### Applications for Sheets

Metal Rubber has been demonstrated in a wide range of applications including, but not limited to: large mechanical deformation sensors, mechanically flexible electrical interconnects, and lightweight, durable, conformal electromagnetic shielding appliques or decals.

### Material Properties

- Sheet resistance:
- Mechanical strain (percent elongation):

### Typical Values

1.0 to 10.0  $\Omega/\square$   
225 to 250 %

### Standard Product Information

Product Number	Product Description	Dimensions	Thickness	Delivery Time
NSM-MR-03-S1-06	Metal Rubber Sheet (I EA)	6" x 6"	0.5 mm $\pm$ 0.2 mm	1-2 weeks
NSM-MR-03-S1-12	Metal Rubber Sheet (I EA)	12" x 12"	0.5 mm $\pm$ 0.2 mm	2-4 weeks
NSM-MR-02-E1	I Rectangular Electrode Sample	1.5" x 0.5"	0.5 mm $\pm$ 0.2 mm	1-2 weeks

NSM-MR-03-S1-06 and NSM-MR-03-S1-12 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.

NSM-MR-02-E1 also meets ASTM, D 882 standards for testing purposes.

### Product Information

For additional product information, please contact a NanoSonic sales representative:

Phone: 540.626.6266

E-mail: [sales@nanosonic.com](mailto: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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