

## General Description of Conductive Copper SEM Tapes

### Single sided conductive copper SEM tapes

Single sided conductive copper tapes for SEM / FIB applications. Indispensable for making ground contacts between the sample surface and SEM stub or SEM sample holder. The tape is made with soft copper foil which is easily molded to follow the shape of the sample. Highly electrically conductive tape with conductive pressure sensitive acrylic adhesive. Resistance through adhesive < 1 Ohm and this tape has a high initial tack to provide good conductivity. Available in the practical widths of 3, 6 and 10mm with a length of 20m. Conductive side covered with siliconized backing paper. Clean 76mm diameter plastic core.

#### Specifications:

<b>ape material</b>	Copper, 99.98% purity
<b>Adhesive</b>	Conductive pressure sensitive acrylic adhesive
<b>Copper tape thickness</b>	0.035mm
<b>Adhesive thickness</b>	0.025mm
<b>Total tape thickness</b>	0.06mm
<b>Backing paper thickness</b>	0.14mm
<b>Resistance</b>	< 1 Ohm
<b>Adhesive strength</b>	14N / 25mm
<b>Tape strength</b>	45N / mm
<b>Use temperature range</b>	-10 to +120 °C
<b>Length</b>	30m
<b>Core diameter</b>	76mm (3")

### Double sided conductive copper tape for SEM / FIB applications.

This double sided conductive copper tape has a layer of conductive acrylic adhesive on both sides. Highly electrically conductive with a resistance through the adhesive < 1 Ohm. This double sided conductive copper tape has the same specifications as the 3M 1182 tape. Ideal for mounting samples directly on sample stubs whilst establishing a grounding path. Either to mount large samples on stubs or for smaller samples directly on the tape. Non-conductive samples surfaces should be coated to obtain best imaging results. Can be used for long term applications. Much better conductivity than carbon tape and carbon tabs. The soft copper tape can be easily cut to the required size. Available with 6, 12 and 20mm width and length of 16.4m. Both side are covered with siliconized backing

paper which makes it easy to unwind the tape and cut to size before applying the tape. Remove the siliconized paper from one side first; apply copper tape and then remove the other backing paper. Clean 76mm plastic core. Tip: Try to minimize exposed area of tape in the SEM to reduce outgassing.

**Specifications:**

<b>Tape material</b>	Copper, 99.98% purity
<b>Adhesive</b>	Conductive acrylic adhesive (2x)
<b>Copper tape thickness</b>	0.035mm
<b>Adhesive thickness</b>	0.025mm
<b>Total tape thickness</b>	0.085mm
<b>Backing paper thickness</b>	0.14mm (2x)
<b>Resistance</b>	< 1 Ohm
<b>Adhesive strength</b>	1.0kg / 25mm per side
<b>Tape strength</b>	4.5kg / mm <sup>2</sup>
<b>Use temperature range</b>	-10 to +120 °C
<b>Length</b>	16.4m (6 and 20 mm width) 13,4m (12 mm width)
<b>Core diameter</b>	76mm (3")

**Single sided** conductive **aluminum** SEM tapes

Single sided conductive aluminum SEM tapes for SEM / FIB applications. Indispensable for establishing ground contacts between the sample surface and SEM stub or SEM sample holder. The aluminum SEM tape is an alternative to the copper conductive SEM tape when copper can't be tolerated. The tape is made with soft aluminum foil which is easily molded to follow the shape of the sample. Good electrically conductive tape with a conductive pressure sensitive acrylic adhesive. Resistance through adhesive < 4 Ohm and this tape has a high initial tack to provide good conductivity. For long term contacts, we advise to use the conductive copper tape. Over time, the resistance through the adhesive tends to increase. Available in the practical widths of 6, 10 and 20mm with a length of 33m. Conductive side covered with siliconized backing paper. 76mm diameter paper core.

**Specifications:**

<b>Tape material</b>	<b>Aluminium, 99.98% purity</b>
<b>Adhesive</b>	<b>Conductive pressure sensitive acrylic adhesive</b>

<b>Copper tape thickness</b>	<b>0.045mm</b>
<b>Adhesive thickness</b>	<b>0.025mm</b>
<b>Total tape thickness</b>	<b>0.070mm</b>
<b>Backing paper thickness</b>	<b>0.14mm</b>
<b>Resistance</b>	<b>&lt; 4 Ohm</b>
<b>Adhesive strength</b>	<b>14N / 25mm</b>
<b>Tape strength</b>	<b>45N / mm</b>
<b>Use temperature range</b>	<b>-10 to +120 °C</b>
<b>Length</b>	<b>33m</b>
<b>Core diameter</b>	<b>76mm (3")</b>