



Conductive Tape

Conductive ElectroTape

A soft conductive foil is laminated to a conductive acrylic adhesive which is protected by a siliconised paper cover. The foils can either be supplied with bright surface or with tin plating. Beside the standard widths other dimensions per customer specification are possible. In this case there is a min. quantity of reels which is determined by the master reel with a width of 11,811 inch (300 mm) out of which the individual reels have to be cut.

Also available:

With conductive acrylic adhesive on both sides.

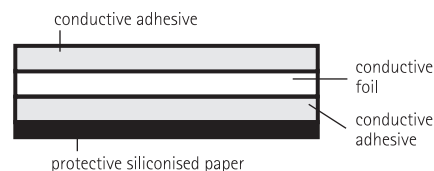


Part No.	8271-xxxx-39	8271-xxxx-76	8277-xxxx-77	8277-xxxx-39	8277-xxxx-76
Foil material	soft copper	soft copper	soft aluminium	soft copper	soft copper
Surface	bright + clean	tin plated	bright + clean	bright + clean	tin plated
Thickness foil material	0,001 (0,035)	0,001 (0,035)	0,002 (0,040)	0,001 (0,035)	0,001 (0,035)
Thickness incl. Adhesive	0,002 (0,065)	0,002 (0,065)	0,003 (0,070)	0,003 (0,085)	0,003 (0,085)
Adhesive	electrically conductive acrylic	electrically conductive acrylic	electrically conductive acrylic	electrically conductive acrylic	electrically conductive acrylic
Protective cover over foil material	no	no	no	not applicable	not applicable
Adhesive performance	4,5 N/cm	4,5 N/cm	4,5 N/cm	5 N/cm	5 N/cm
Tensile strength	50 N/cm	40 N/cm	25 N/cm	55 N/cm	40 N/cm
Tear elongation	6 - 10%	5%	8%	-	5%
Max. temp. contin.	+ 150°C	+ 150°C	+ 150°C	+ 150°C	+ 150°C
Width of foil in mm	12-20-25	12-20-25	12-20-25	12-20-25	12-20-25
Length/reel in m	33	33	33	33	33
Resistance along foil	0,002 Ω	0,002 Ω	<1 Ω	not applicable	not applicable
Resistance through foil	<0,1 Ω	<0,1 Ω	<1 Ω	<0,1 Ω	<0,1 Ω
Listing per	MIL-T-47012	-	MIL-T-47012	-	-
Construction	Foil 1	Foil 1	Foil 1	Foil 2	Foil 2

Foil 1



Foil 2



Ordering Code

The ordering code consists of the partgroups, reel width and material code:

8271-0020-76



material code
reel width
partgroups

For length and widths not shown, design assistance, samples, or further information, contact our sales department.

All dimensions shown are in inches (millimeters) unless otherwise specified.



Conductive ElectroMask Tape

ElectroMask conductive foil tape with release mask is a tinned copper tape with peel off mask that allows for high temperature adhesion to withstand curing after painting.

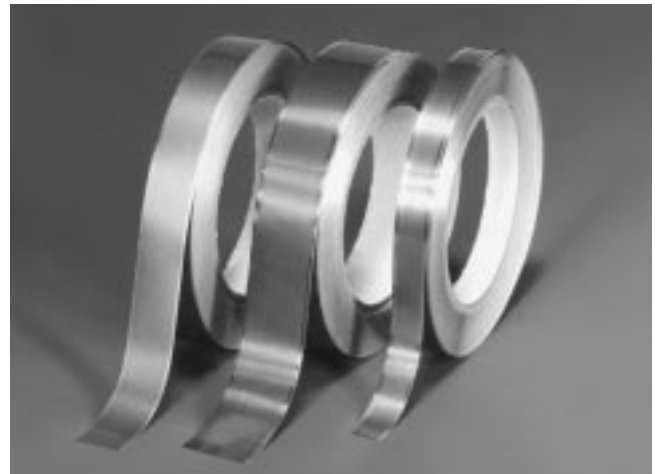
The tape provides a conductive, non-corroding surface when applied to clean metal frames, doors, or panel surfaces where electrical conductivity is required. The release mask is easily removed from the foil layer after painting. The remaining foil leaves a clean, electrically conductive path as a mating surface for an EMI gasket.

- Simple installation.
- Eliminates plating the entire cabinet.
- Die-cut shapes can be provided for grounding points within the closure.

ElectroMask Tape with release mask is offered in continuous rolls of 108 feet (32,92 m), or custom die-cut shapes.

Application Instructions For Release Mask Tape

1. Conductive surface must be clean and free of any residue. If required, re-new mounting surface with light emery cloth or proper solvent.
2. Apply release mask tape by removing protective paper backing. Press firmly and uniformly to ensure



good adhesion. Proper alignment is important. Avoid removal and repositioning. Allow one hour for bonding prior to additional processing.

3. Use traditional methods to apply paint to masked area. Release mask tape will withstand baking temperatures up to 437 °F (225 °C) up to 60 minutes.
4. Remove mask as soon as the enclosure cools to room temperature by peeling backward, parallel to foil tape. If foil separates from the surface, simply press back in place.
5. Full adhesion is achieved after 24 hours.

Example of application

1) Apply copper band to the contact surface

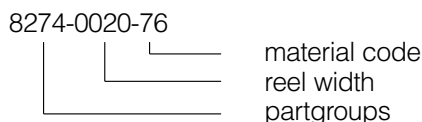
2) Painting

3) Drying the colour

4) Remove protective foil: Contact surface is free

Ordering Code

The ordering code consists of the partgroups, reel width and material code:



Part No.	8274-xxxx-39	8274-xxxx-76
Foil material	soft copper	soft copper
Surface	bright + clean	tin plated
Thickness foil material	0,001 (0,035)	0,001 (0,035)
Thickness incl. Adhesive	0,002 (0,065)	0,002 (0,065)
Adhesive	electrically conductive acrylic	electrically conductive acrylic
Protective cover over foil material	Polyester shrink foil	Polyester shrink foil
Adhesive performance	4,5 N/cm	4,5 N/cm
Tensile strength	50 N/cm	40 N/cm
Tear elongation	6 - 10%	5%
Max. temp. contin.	+ 150°C	+ 150°C
Width of foil in mm	12-20-25	12-20-25
Length/reel in m	50	50
Resistance along foil	0,002 Ω	0,002 Ω
Resistance through foil	<0,1 Ω	<0,1 Ω
Listing per	MIL-T-47012	-

All dimensions shown are in inches (millimeters) unless otherwise specified.



High-Flex® Conductive Fabric Shielding Tape

High-Flex® conductive fabric shielding tapes offer exceptional conformability and conductivity for dynamic flex applications. High-Flex® tapes are constructed of Electron® nickel/copper metallized ripstop or plain weave fabric with a pressure sensitive adhesive (PSA). This reliable tape design provides outstanding shielding performance while offering superior abrasion and corrosion resistance under high dynamic flex conditions.

The proprietary anti-fray coating of High-Flex® EMI shielding tapes virtually eliminates concerns of loose conductive fibers and their potential to cause board level damage. Other significant advantages over other fabric and foil shielding tapes include:

- Thinner design provides superior flexibility and durability.
- High conductivity and shielding effectiveness.
- Adhesive system provides high peel strength.
- Easy die-cutting and processing.
- Superb adhesion of nickel copper plating.
- Eliminates the potential of injury due to the sharp edges of metal foil tapes.

High-Flex® EMI shielding tape is available in standard roll widths from 0.394" (10 mm) to 1.969" (50 mm) in 0.197" (5 mm) increments and roll lengths of 65.62' (20 M). Master rolls are available in sizes up to 1.4 meter widths and 300 meter lengths. For your unique design requirements, custom die-cut parts are also available.

Some typical applications for High-Flex® EMI shielding tapes include:

- Shielding cables on notebook computers, copiers or other electronic equipment.
- "Fix-it" applications in test laboratories.
- Shielding over a component in which high conformability is essential.
- Shielding or grounding in weight sensitive applications.
- Shielding or grounding for electronic equipment where vibration may be present during operation.

Tape Construction

Carrier	Electron® Nickel Copper Ripstop Fabric (1A) Electron® Nickel Copper Ripstop Fabric (2T) Electron® Metallized Nickel Copper Plain Weave Fabric (2Z)
Adhesive	High Strength Pressure Sensitive Acrylic Adhesive
Liner	Kraft Paper

Performance Characteristics

	High-Flex® Tape 1A = Nickel Copper Ripstop Fabric	High-Flex II® Tape 2T = Nickel Copper Ripstop Fabric 2Z = Nickel Copper Plain Weave Fabric
Tape Thickness	0.004 to 0.005 inches (0.10 mm to 0.13 mm)	0.003 to 0.005 inches (0.08 mm to 0.13 mm)
Liner Thickness	0.005 to 0.006 inches (0.13 mm to 0.15 mm)	0.003 to 0.004 inches (0.08 mm to 0.10 mm)
Break Strength (ASTM 5035)	50 lb./in. (856/100 mm)	50 lb./in. (856/100 mm)
Weight (LT 500)	2.3 to 3.0 oz./sq. yard (78.0 to 118.7 grams/sq. Meter)	2.3 to 3.0 oz./sq. yard (78.0 to 118.7 grams/sq. Meter)
XY Sheet Resistivity (ASTM F390)	Below 0.08 ohms/sq. (Typically 0.03 ohms/sq.)	Below 0.05 ohms/sq. (Typically 0.02 ohms/sq.)
Peel Strength (ASTM D330 & PSTC-1)	48 oz./in. (52 N/100 mm)	54 oz./in. (59 N/100 mm)
Abrasion Resistance (ASTM D3886)	> 1,000,000 Cycles	> 1,000,000 Cycles
Temperature Range	-40 °F to 212 °F (Min/Max) (-40 °C to 100 °C)	-40 °F to 212 °F (Min/Max) (-40 °C to 100 °C)
Shielding Effectiveness per Mil-Std-285 (Mod.)	> 70 dB up to 18GHz	> 70 dB up to 18GHz

All dimensions shown are in inches (millimeters) unless otherwise specified.



Ordering Information:

Digits: 1 2 3 4 5 6 7 8 9 10 11
1 A 0 2 5 0 R 0 2 0 0

Digits 1 and 2

Designate conductive tape product line and fabric options: 1A = Nickel Copper Ripstop Fabric
2T = Nickel Copper Ripstop Fabric
2Z = Nickel Copper Plain Weave Fabric

Digits 3 through 6

Designate width in millimeters to one decimal place. (i.e., in the above example, the 0250 indicates a 25 mm wide roll).

Digit 7

Designates the form the tape is provided in: R = Roll K = Kiss-Cut in Pieces P = Pieces

Digits 8 through 11

Designate the roll length in meters to one decimal place (i.e., in the above example 0200 indicates a roll length of 20 meters).

Shielding Effectiveness

