



Conductive Tapes Catalog



Think Schlegel EMI For Shielding

As the originator of the fabric-clad foam EMI shielding technology, Schlegel EMI is the industry's most trusted name. We continue to set the standard for quality and innovation, designing advanced solutions for a wide range of applications. And our worldwide locations ensure that you get what you need, when and where you need it.

EMI Shielding Products



SCHLEGEL

electronic materials

Schlegel EMI Conductive Tapes

MORE FLEXIBILITY, HIGHER CONDUCTIVITY, AND EASIER INSTALLATION

Schlegel EMI's expanded line of Conductive Tapes meets the customer needs for flexibility, higher conductivity, and easier installation. Schlegel EMI Conductive Tapes feature superior shear strength, 7.6 kPa (72+hours @ 1.1 psi) in accordance to (PSTC #7) ASTM D 3654, and peel strength, from 10.2 N/2.5cm (36.07 oz/inch width) to 20.3N/2.5cm. (71.8 oz/inch width) in accordance to (PSTC#1) ASTM D 3330, when compared to other EMI shielding tapes. This is made possible by a unique, cross-linking acrylic based, conductive Pressure Sensitive Adhesive (PSA) that also allows the tapes to be designed into higher temperature applications. Low temp application is possible down to 10°F (-12°C), and excessive pressure is not required for application to the end unit. We also have PSA that are fire-rated to UL 510. There is now an easy-to-apply tape to fit most every EMI shielding design need.

Conductive Silver Tape (CST)

HIGHER CONDUCTIVITY WITHOUT THE SHARP EDGES

The foundation of Schlegel EMI's tape products is Conductive Silver Fabric Tape. CST offers superb conductivity and ease of installation for a wide range of applications. The smooth, soft-edged tape will not crack after repeated flexing, or cause injuries. Schlegel EMI CST achieves total coverage, even on irregular surfaces and experiences no significant shrinkage at temperatures up to 180°C (356°F). A unique, conductive Pressure Sensitive Adhesive(PSA) allows the tapes to be designed into higher temperature applications. The PSA is fire rate to UL 510, and excessive pressure is not required for application to the end unit.

CST tape has an average shielding effectiveness of 70 dB in the range of 20 MHz to 10 GHz. CST's protective C2 coating lowers the cathodic potential of the silver to make it galvanically compatible with a variety of EMI gaskets and cabinet surfaces. A superior alternative to sharp, non-conforming foil tapes, Schlegel EMI's lightweight Conductive Sliver Tape is ideal for grounding and for sealing small apertures in frames. It achieves total coverage, and experiences no significant shrinkage at temperatures up to 180°C (356°F).

For assemblers, the CST's soft fabric is safe and easy to work with, and it stays firmly in place with Schlegel EMI's strong, high-tack conductive adhesive. The conductive fabric base also allows the tape to be custom-cut in virtually any unique shape with simple, inexpensive tooling.

Shielding Effectiveness
(MIL-STD-285modified):

Frequency	Attenuation
100 MHz	79 db
400 MHz	64 db
1 GHz	68 db



Sizes

Tape Width	Tape Length	Part Number
0.315 " (8mm)	18 yard (16.45m) roll	5941-0031-0
0.500 " (12.7mm)	18 yard (16.45m) roll	5941-0050-6
0.788 " (20mm)	18 yard (16.45m) roll	5941-0079-8
1.000 " (25.4mm)	18 yard (16.45m) roll	5941-0100-3
1.118 " (30mm)	18 yard (16.45m) roll	5941-0118-2
2.000 " (50.8mm)	18 yard (16.45m) roll	5941-0200-5

Specifications

- Fabric: Silver woven nylon ripstop fabric with C2 anti-corrosion coating
- Adhesive: High-tack, conductive adhesive system
- Surface Resistivity: less than 0.5 Ω Test Method: ASTM F390 modified
- Volume Resistance: 0.20 Ω-cm Test Method: LP 3007
- Low Temperature Application: 40°F (4°C)
- Abrasion Resistance: No change in surface resistivity and no fabric degradation after more than 800,000 wear cycles
- Shrinkage: <4% at 180°C (356°F) temperature
- Peel Strength Test Method ASTM D3330
 - 45.80 oz per inch (1.62g per mm) @ 1 hour dwell initial
 - 47.47 oz per inch (1.67g per mm) @ 24 hour dwell initial

Conductive Mask & Peel Tape (CMP)

SHIELD ENCLOSURES SAFELY AND EFFICIENTLY

Schlegel EMI's Conductive Mask & Peel (CMP) tape simplifies the manufacture of painted enclosures. CMP is constructed of impenetrable, heat-release mask, highly conductive nickel copper fabric and strong high-tack, conductive adhesive, which secures the tape to the metal for superior EMI shielding. The tape employs Press, Paint, and Peel application and provides total coverage. The CMP tape's volume resistance is in the range of 0.8 Ω -cm [average]. When CMP is used with Schlegel Electronic Materials EMI shielding gaskets, a highly conductive pathway is obtained, and provides excellent galvanic capability between mating surfaces. Typical applications include large cabinets, factory automation equipment and data storage units.

Press, Paint and Peel application is simple, safe, and secure. The operator removes the release liner from the back of the fabric tape and applies it to the prepared bare metal surface. No sharp edges exist that could lead to injuries. The 2-mil polyimide mask prevents infiltration of paint during the spraying or powder-coat process. Enclosures with CMP can be baked at temperatures up to 180°C (356°F) for up to 30 minutes. The low-tack mask releases during baking so it can easily be removed to reveal the highly conductive fabric surface.

Shielding Effectiveness
(MIL-STD-285modified):

Frequency	Attenuation
100 MHz	96 db
400 MHz	87 db
1 GHz	84 db



Sizes

Tape Width	Tape Length	Part Number
0.320" (8.0 mm)	36 yard (33m) rolls	5935-0031-4
0.500" (12.7 mm)	36 yard (33m) rolls	5935-0050-0
0.790" (20.0 mm)	36 yard (33m) rolls	5935-0079-4
1.000" (25.4 mm)	36 yard (33m) rolls	5935-0100-7
1.118" (30.0 mm)	36 yard (33m) rolls	5935-0118-8
1.157" (40.0 mm)	36 yard (33m) rolls	5935-0157-6
2.000" (50.8 mm)	36 yard (33m) rolls	5935-0200-9
2.500" (63.5 mm)	36 yard (33m) rolls	5935-0250-4

Specifications

- Fabric: Woven copper nickel fabric
- Adhesive: High-tack, aggressive conductive adhesive system
- Removable Mask: 2-mil thick removable polyimide liner
- Volume Resistance: 0.8 Ω -cm [average] Test method: LP-3007

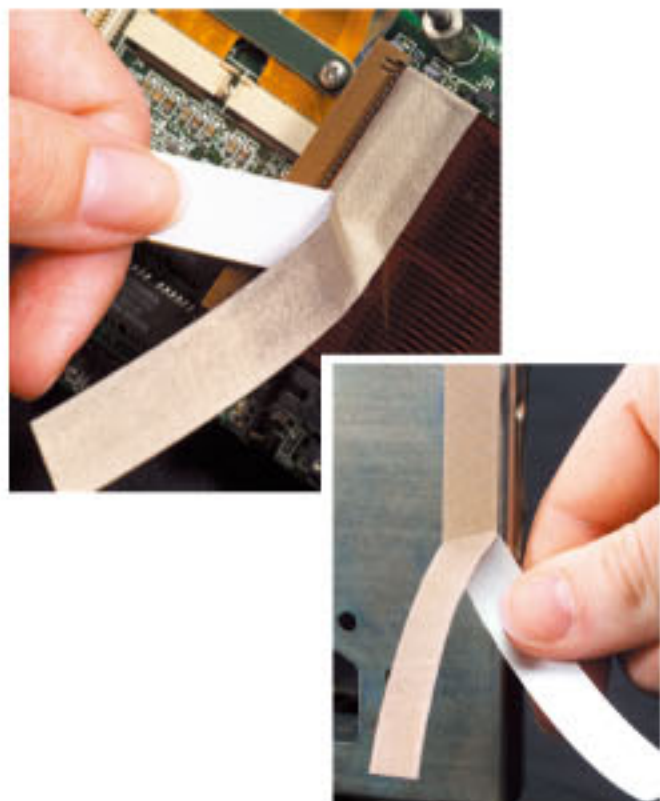
- Abrasion Resistance: No change in surface resistivity after more than 100,000 wear cycles. Test method: ASTM D3886
- Shrinkage: <1% @ 180°C (356°F) for 30 minutes. Test Method: LP-3012
- Peel Strength: 50 oz. Per inch minimum initial. Test Method: ASTM D3330

Conductive NiCu Fabric Tape (CFT)

Schlegel EMI's CFT is made from the same woven copper nickel fabric as its CMP and has the same conductive and galvanic capabilities. The nickel copper fabric, along with Schlegel EMI's aggressive high temperature resistant conductive PSA, is designed specifically for applications that do not require a mask, i.e., cabinets that are not going to be painted or powder coated.

Shielding Effectiveness
(MIL-STD-285modified):

Frequency	Attenuation
100 MHz	96 db
400 MHz	87 db
1 GHz	84 db



Sizes

Tape Width	Tape Length	Part Number
0.320" (8.0 mm)	36 yard (33m) rolls	5927-0031-0
0.500" (12.7 mm)	36 yard (33m) rolls	5927-0050-6
0.790" (20.0 mm)	36 yard (33m) rolls	5927-0079-2
1.000" (25.4 mm)	36 yard (33m) rolls	5927-0100-3
1.118" (30.0 mm)	36 yard (33m) rolls	5927-0118-8
1.157" (40.0 mm)	36 yard (33m) rolls	5927-0157-2
2.000" (50.8 mm)	36 yard (33m) rolls	5927-0200-5

Specifications

- Fabric: Woven copper nickel fabric
- Adhesive: High-tack, aggressive conductive adhesive system
- Volume Resistance: 0.8 Ω -cm [average]. Test method: LP-3007

- Abrasion Resistance: No change in surface resistivity after more than 100,000 wear cycles. Test method: LP-3012
- Peel Strength: 50 oz. Per inch minimum initial. Test Method: ASTM D3330

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