



ShrinkMate® Cable Joint EMI Shielding

ECCO ShrinkMate® Conductive heat shrink provides EMI shielding without the use of solder

This lightweight solution provides not only electrical continuity, EMI, RFI, and ESD shielding, but also enables electrical connection between components of various sizes and shapes, and between solderable and non-solderable surfaces.

ECCO's ShrinkMate® combines use of MIL-I-23053/5 polyolefin tubing, or clear medical grade polyester tubing and a highly conductive Polymer Thick Film silver inner coating. The coating shrinks with a heat gun, oven, or any other conventional heat source. When the tubing is set, the inner conductive layer provides an electrical connection between the outside surface of the objects that are joined by the tubing. Coaxial cable butt joints and cable to shielded connector housing joints can be made fast and easy and without the use of solder.

SPECIFICATIONS

Environmental & Electrical

| | | |
|-------------------------|--|-------------------------------|
| Materials Available | Multi-Purpose Polyolefin (black or clear) | Clear Medical-Grade Polyester |
| Operating Temperature | -55° C to +135° C | Please Contact ECCO |
| Longitudinal Shrink | 2% | Please Contact ECCO |
| Shrink Ratio (diameter) | 2:1 & 3:1 | 15-20% at 85° C to 190° C |
| Processing Temperature | 120° C | Please Contact ECCO |
| Dielectric Strength | 600 Volts/mil | >4,000 V/mil |
| Conductivity | The resistance of a shrunken tube is approximately 1 ohm per inch. The resistance of any splice is determined by the gap between two objects being spliced. A 0.1 inch gap will have 0.1 ohm resistance. | |
| Outgassing | Passes the Aerospace Industry General Specification Vacuum Stability Requirements of Polymeric Material for Spacecraft Application for Mass Loss and Collected Volatile Condensable Materials per ASTM E-595, NASA Sp-R-002A and ESA PSS-01-702. | |
| EU REACH Compliance | Reach Compliant through 16 December 2013 | |
| RoHS Compliance | Compliant to RoHS Directive 2011/65/EU and amendments though Directive 2012/51/EU | |

Key Features

- Eliminates soldering
- Fast & Easy Connections
- Lightweight
- Very small diameters available
- Ideal for splicing coaxial cables
- Forms cable to shielded housing connections

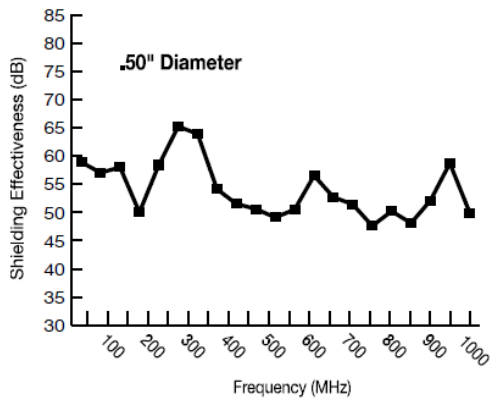
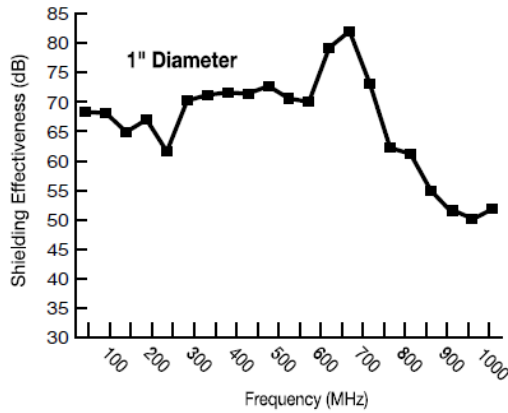
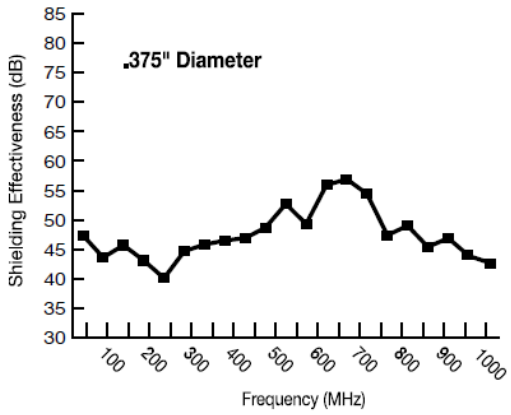
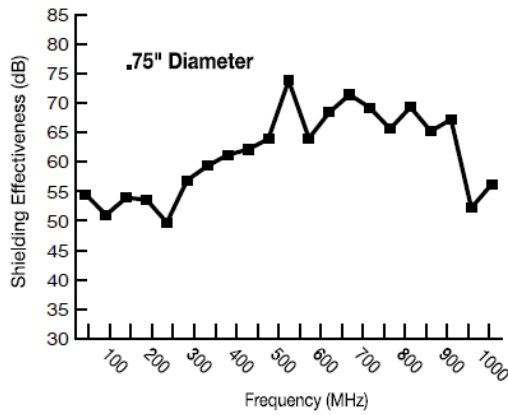
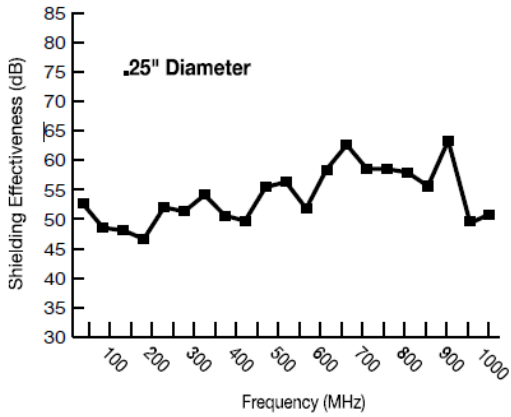


Black Polyolefin Tubing



Heat Shrink Transition Boots using MIL-I-81765/1A Polyolefin

Shielding Effectiveness



Notes:

All ECCO ShrinkMate® tubing sample sizes were 10" long, standard polyolefin shrink tubing with polymer thick film silver inner diameter coating.

ORDERING INFORMATION

| Material | Part Number |
|-------------------------------|-------------|
| Black Polyolefin (2:1) | SM111 |
| Black Polyolefin (3:1) | SM333 |
| Clear Polyolefin | CM111 |
| Clear Medical Grade Polyester | PL111 |

CONTACT INFORMATION

Sales@eccochicago.com
 www.eccoconnectors.com
 773-767-2200



Clear Polyolefin applied



ANATOMY OF SHRINKMATE PARTS

SM111-01-0375-024

| | | DESCRIPTION DESIGNATION |
|------|--|----------------------------|
| SM | TUBE - Black Multi-Purpose Polyolefin | ShrinkMate BLK |
| CM | TUBE - Clear Multi-Purpose Polyolefin | ShrinkMate CLR |
| PL | TUBE - Clear Polyester (Medical Grade) | ShrinkMate POLY |
| HSB | TRANSITION BOOT - | Trans Boot |
| 111 | 2:1 Reduction Ratio | 2:1 |
| 333 | 3:1 Reduction Ratio | 3:1 |
| 01 | Coating - Inside Tube ONLY | INT |
| 02 | Coating - Outside Tube ONLY | EXT |
| 03 | Coating - BOTH Inside & Outside | INT/EXT |
| 0024 | Internal Diameter - Add Decimal 2ND Position (0.024) | 0.024"DIAM |
| 0036 | Internal Diameter - Add Decimal 2ND Position | 0.036"DIAM |
| 0039 | Internal Diameter - Add Decimal 2ND Position | 0.039"DIAM |
| 0050 | Internal Diameter - Add Decimal 2ND Position | 0.050"DIAM |
| 0055 | Internal Diameter - Add Decimal 2ND Position | 0.055"DIAM |
| 0060 | Internal Diameter - Add Decimal 2ND Position | 0.060"DIAM |
| 0078 | Internal Diameter - Add Decimal 2ND Position | 0.078"DIAM |
| 0080 | Internal Diameter - Add Decimal 2ND Position | 0.080"DIAM |
| 0082 | Internal Diameter - Add Decimal 2ND Position | 0.082"DIAM |
| 0088 | Internal Diameter - Add Decimal 2ND Position | 0.088"DIAM |
| 0090 | Internal Diameter - Add Decimal 2ND Position | 0.090"DIAM |
| 0093 | Internal Diameter - Add Decimal 2ND Position | 0.093"DIAM |
| 0095 | Internal Diameter - Add Decimal 2ND Position | 0.095"DIAM |
| 0105 | Internal Diameter - Add Decimal 2ND Position | 0.105"DIAM |
| 0110 | Internal Diameter - Add Decimal 2ND Position | 0.110"DIAM |
| 0115 | Internal Diameter - Add Decimal 2ND Position | 0.115"DIAM |
| 0125 | Internal Diameter - Add Decimal 2ND Position | 0.125"DIAM |
| 0160 | Internal Diameter - Add Decimal 2ND Position | 0.160"DIAM |
| 0187 | Internal Diameter - Add Decimal 2ND Position | 0.187"DIAM |
| 0250 | Internal Diameter - Add Decimal 2ND Position | 0.250"DIAM |
| 0375 | Internal Diameter - Add Decimal 2ND Position | 0.375"DIAM |
| 0500 | Internal Diameter - Add Decimal 2ND Position | 0.500"DIAM |
| 0750 | Internal Diameter - Add Decimal 2ND Position | 0.750"DIAM |
| 1000 | Internal Diameter - Add Decimal 2ND Position | 1.000"DIAM |
| 1250 | Internal Diameter - Add Decimal 2ND Position | 1.250"DIAM |
| 1500 | Internal Diameter - Add Decimal 2ND Position | 1.500"DIAM |
| 2000 | Internal Diameter - Add Decimal 2ND Position | 2.000"DIAM |
| 024 | Length in Inches ('X' denotes Fraction of Inch) | ShrinkMate FRAC |