9703 Electrically Conductive Tape

Data Sheet

3M™ 9703 Electrically Conductive Tape is an adhesive transfer tape with antisotropic electrical conductivity. It can be used for EMI/RFI shielding and electronic assembly applications. The conductivity of this tape is only through the adhesive thickness, not along the plane of the tape.

Properties	**Typical Values***
Adhesive	Filled-Acrylic
Release Liner	Silicon treated kraft paper
Approximate Thickness:	
Release Liner	.005 in (0.127 mm)
Tape Only	.002 in. (0.05 mm)

Electrical Properties	**Typical Values***
Contact Resistance/Resistivity[1]	1.25 milli-Ohms-in^2/1.6 Ω-cm
Current Carrying Capacity	1 amp/square in.
Minimum Suggested Gap Between Contacts	0.015 in. (0.4 mm)
Minimum Suggested Contact Area (per pad)	0.005 in.^{2}
Insulation Resistance[2]	3.4 x 10^{14} Ohms
Outgassing[3]	
125C, 24 hrs. in 2 x 106 Torr vacuum	
Total Mass Loss (TML)	0.7%
Collected Volatile Condensable Materials (CVCM)	0.01%

Test Methods: [1] Based on "four-wire" resistance measurements made with crossed-pairs of silver-ink/polyester flex circuits each having 50 mil conductor width (yielding 0.5 megohms contact resistance over the 0.0025 in.2 areas). Contact resistance in various applications will depend on the conductor materials, etc. Voids or entrapped air will serve to decrease the contact area and consequently increase the resistance.

[2] ASTM D-257

[3] NASA SP-R-0022 or ASTM E-595

*Technical information provided consists of typical product data and should not be used for specification purposes.

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