



DUPONT™ TEMPRION™ AT07000

ADHESIVE THERMAL TAPE

DESCRIPTION

DuPont™ Temprion™ AT07000 series adhesive thermal tape is a stand-alone pressure sensitive adhesive featuring the lowest thermal resistance available on the market, designed to facilitate the transfer of thermal energy from heat sources, such as IC chips, to heat sinks.

Temprion™ AT07000 offers a high degree of substrate conformability and adhesion to achieve excellent thermal performance with hand-applied levels of pressure, eliminating the need for mechanical fasteners or clamping devices during assembly.

APPLICATIONS

- Thermal Interface Material
- Transfer Tape
- Heat sink attachment
- Battery Attachment

FEATURES

- Thermal impedance approaching that of grease
- Non-silicone formulation precludes redeposition
- Halogen-free UL 94 V-0 flammability rating (pending)
- RoHS Compliance

Table 1 – Typical Properties of DuPont™ Temprion™ AT07000 Series Adhesive Thermal Tape

Property	AT07050	AT07125	AT07250	Test Method
Color	White	White	White	Visual
Thickness, mil (mm)	2 (0.050)	5 (0.125)	10 (0.250)	ASTM D374
CTE, ppm @ 23 °C to 150 °C	TBD			ASTM D3386
Glass Transition Temp, °F (°C)	TBD			ASTM D1356
Continuous Use Temp, °F (°C)	-4 to 248 (-20 to 120)			N/A
Thermal Conductivity, W/m•K	0.7			ASTM D5470
Thermal Impedance, °C•in ² /W @ psi (MPa)	0.25 @ 20 (0.14) 0.15 @ 50 (0.35) 0.14 @ 100 (0.69) 0.14 @ 150 (1.0)	0.39 @ 20 (0.14) 0.32 @ 50 (0.35) 0.31 @ 100 (0.69) 0.30 @ 150 (1.0)	0.69 @ 20 (0.14) 0.62 @ 50 (0.35) 0.52 @ 100 (0.69) 0.39 @ 150 (1.0)	ASTM D5470
Breakdown Voltage, Vac	2440	6100	12200	ASTM D149
Dielectric Constant, @ 1 MHz	TBD	TBD	TBD	ASTM D150
Volume Resistivity, Ω•cm	1.6x10 ¹⁵	9.8x10 ¹⁴	3.4x10 ¹⁴	ASTM D257
90° Peel, oz/in on untreated aluminum	21	26	25	ASTM D3330
180° Peel, oz/in on untreated aluminum	TBD	TBD	TBD	ASTM D3330
Tensile Strength, psi (MPa)	TBD	TBD	TBD	TBD
Elongation to Break, %	TBD	TBD	TBD	TBD
Flammability	V-0			UL94
RoHS Compliant	Yes			N/A

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CAUTION: Do not use in medical applications involving permanent implantation in the human body. For other medical applications, see "DuPont Medical Caution Statement," H-50102-4.

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