

DuPont™ Temprion® AT

Adhesive Thermal Tape

Thermal Management Materials



Product Description

DuPont™ Temprion® AT 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® AT 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.

Key Features and Benefits

- Thermal impedance approaching that of grease
- Non-silicone formulation precludes redeposition
- Halogen-free
- RoHS Compliant

Packaging

DuPont™ Temprion® AT is supplied in roll form with standard sizes of 20" (508mm) wide x 100' (30.5m) long or 250' (76m) long, on a nominal 3 in (76 mm) core. Narrower widths and different lengths are also available by special order.

Storage and Warranty

DuPont™ Temprion® AT Adhesive Thermal Tape should be stored in original packaging at temperatures of 4 - 29 °C (40 - 85 °F) and below 70% relative humidity. The product should not be frozen and should be kept dry, clean, and well-protected. Subject to compliance with the foregoing handling and storage recommendations, DuPont's warranties shall remain in effect for the period provided in the DuPont Standard Conditions of Sale.

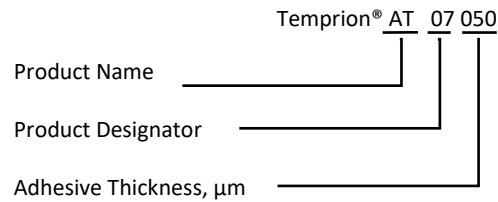
Quality and Traceability

DuPont™ Temprion® AT Adhesive Thermal Tape is manufactured under a certified ISO9001:2015 Quality Management System facility. Complete material and manufacturing records, which include archive samples of finished product, are maintained by DuPont. Each manufactured lot is identified for reference traceability. The packaging label serves as the primary tracking mechanism in the event of customer inquiry and includes the product name, batch number, size, and quantity.

Table 1 – Standard Temprion® AT Offerings

Product Code	Adhesive Thickness µm (mil)
AT07050	50 (2)

Product Code Key



For help beyond the standard offerings in Table 1, please contact your DuPont sales representative.

Temprion® AT Construction Selection

For help beyond the standard offerings in Table 1, please use the Product Selector at temprion.dupont.com/selector to identify the appropriate product code for your solution.



Processing

DuPont™ Temprion® AT is a pressure sensitive adhesive tape. The bonding surface should be clean, dry, and free of any contaminants that may adversely affect the adhesive bond. Starting from a corner, fully remove the protective film before lightly placing it back on the adhesive, leaving a small strip of adhesive exposed. Place sample onto the substrate starting with the exposed strip, then continue removing the protective film and bonding the adhesive to the substrate, adding pressure with a roller to ensure that no bubbles are trapped in the interface between substrate and adhesive.

Product Performance

Table 2 - DuPont™ Temprion® AT Adhesive Thermal Tape Properties

Property	Typical Values AT07050	Test Method
Color	White	Visual
Thickness, mil (mm)	2 (0.050)	ASTM D374
Continuous Use Temp, °F (°C)	-4 to +257 (-20 to 125)	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)	ASTM D5470
Breakdown Voltage, Vac	2440	ASTM D149
Volume Resistivity, Ω•cm	> 1015	ASTM D257
90° Peel, lb/in (N/cm) against smooth aluminum, 1hr dwell	1.6 (2.7)	ASTM D3330
Lap Shear Strength, psi on untreated aluminum	40	ASTM D3163

Data within this table are typical values for the listed product. Performance can vary depending on construction and processing.



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For more information on Temprion® AT Adhesive Thermal Tape or other DuPont products, please visit electronics.dupont.com.

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