

PSA INSULATING TAPE TAT-N-AC

Acrylate adhesive, thermally conductive



TAT-N-AC is a thermally conductive electrically insulating acrylate PSA transfer tape. Through the thermally conductive adhesive the thermal contact is highly improved even at low pressures. Convex and concave surface structures and stack up tolerances are effectively compensated. Materials with different expansion coefficients can easily be bonded. Thus the total thermal resistance is minimised. The tape works well for realizing an effective and cost efficient thermal coupling in a broad field of applications. Above all it is used in applications having little space only and where the permitted weight is limited. Using screws, springs, clips as mechanic fasteners thus becomes superfluous. Its wide thickness range allows the use as gap filler.



Release 10 / 2019

PROPERTIES

- Low thermal resistance
- Thermal conductivity: 1.0 W/mK
- Use as gap filler due to wide thickness range
- Reliable strong adherence on uneven or hardly machineable surfaces
- Silicone-free
- Neither mixing of components nor curing processes
- Replacement of fasteners e.g. screws, clips, etc.

AVAILABILITY

- Sheet (on request)
- Roll (on request)
- TAT-NXXXX-AC
- Die cut parts
- Kiss cut parts on sheet

APPLICATION EXAMPLES

Thermal link of:

- LEDs
 - CPUs
 - RDRAM memory modules
 - Flip Chips, DSPs, BGAs, PPGAs
 - MOSFETs to heat sinks
- For use in Power supplies / PCs / Telecom engineering / Automotive applications / LED arrays

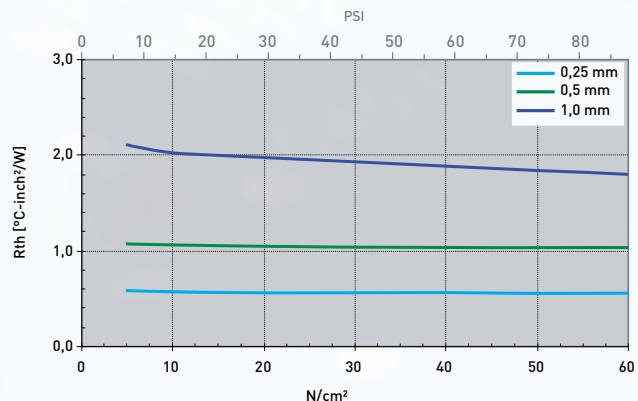
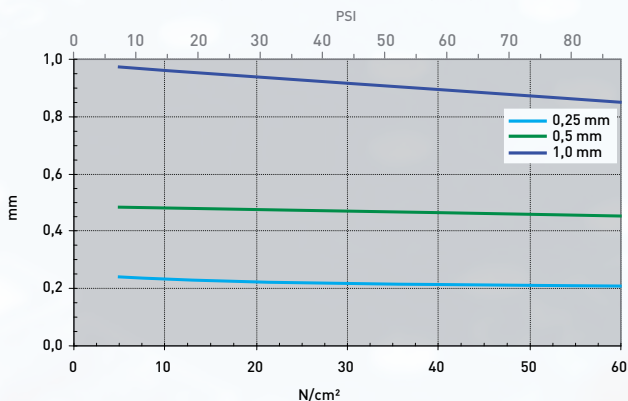
Property	Unit	TAT-N0250-AC	TAT-N0500-AC	TAT-N1000-AC
Material		Ceramic filled acrylate PSA adhesive	Ceramic filled acrylate PSA adhesive	Ceramic filled acrylate PSA adhesive
Colour		White	White	White
Tape Thickness	mm	0.25	0.50	1.0
Liner Thickness	mm	0.15	0.15	0.15
Tensile Strength ¹	N/cm	1.47	2.94	7.85
Elongation ¹	%	400	500	400
Peel Off Strength @ RT (30 min) ¹	N/2.5 cm	13.7	14.7	16.7
Shear Strength ²	PSI	49	49	64
UL Flammability (Equivalent)	UL 94	V0	V0	V0
RoHS Conformity	2011 / 65 / EU	Yes	Yes	Yes
Thermal				
Resistance ³ @ 60 PSI @ Thickness	°C-inch ² /W (mm)	0.55 (0.22)	1.03 (0.46)	1.87 (0.89)
Resistance ³ @ 30 PSI @ Thickness	°C-inch ² /W (mm)	0.56 (0.23)	1.04 (0.48)	1.96 (0.94)
Resistance ³ @ 10 PSI @ Thickness	°C-inch ² /W (mm)	0.57 (0.24)	1.05 (0.49)	2.05 (0.96)
Thermal Conductivity	W/mK	0.8 ³ / 1.0 ⁴	0.8 ³ / 1.0 ⁴	0.8 ³ / 1.0 ⁴
Operating Temperature Range	°C	- 25 to + 130	- 25 to + 130	- 25 to + 130
Electrical				
Breakdown Voltage ⁵	kV AC	2.6	> 5.0	> 5.0

Test Methods: ¹ BS 3924, ² ASTM D 1002, ³ ASTM D 5470, ⁴ DIN V 54462, ⁵ ASTM D 149. All data without warranty and subject to change. Please contact us for further data and information.

Shelf life adhesive: 6 months when stored in original packaging at room temperature and 50% relative humidity.

Thicknesses: 0.25 mm / 0.50 mm / 1.0 mm

mm vs. N/cm² (PSI) / Rth vs. N/cm² (PSI)



All technical data and information are without warranty and believed to be reliable and accurate, corresponding to the latest state of the art. Since the products are not provided to conform with mutually agreed specifications and their use and processing are unknown we cannot guarantee results, freedom from patent infringement, or their suitability for any application. Product testing by the applicant is recommended. We reserve the right of changes.