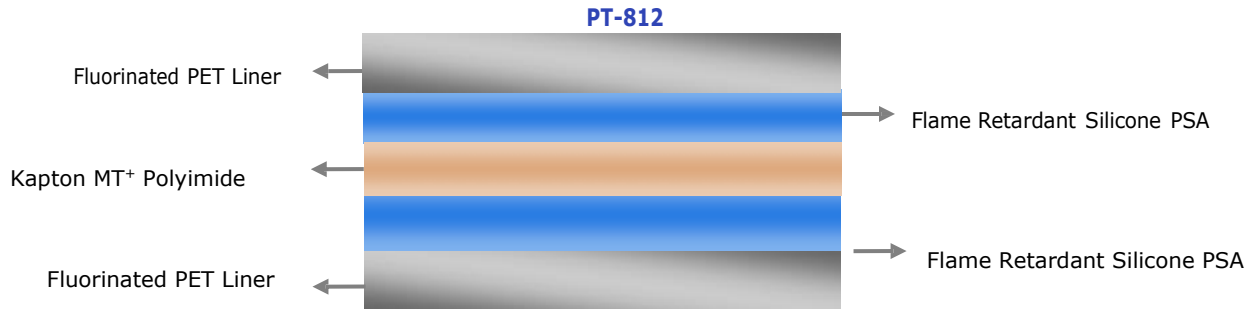


Description:

POLYONICS PT-812 is a 4.5 mil (114 μm) thermally conductive, double coated bonding tape with silicone pressure sensitive adhesives (PSA) and fluorinated PET liners.



Features:

- High thermal impedance
- High dielectric strength
- UL94 VO flame retardant (UL recognition pending)
- REACH and RoHS compliant
- Halogen-free

Technical Data

	Property	Method	Average Results	
PHYSICAL	Color	Visual	Black	
	Total Thickness¹ inch (mm)	ASTM D-1000	0.0045 (0.11)	
	Reinforcement Carrier	-	1.5 mil Kapton MT+ Polyimide	
	Thickness TIM inch (mm)	ASTM D-1000	0.0015 (0.04) each side	
	Continuous Use Temp², °C (°F)	Polyonics (1000 hrs)	0°C to 200°C (32°F to 392°F)	
	Condition Rating² -High Temp testing of solid state devices for 1000hrs	JEDEC 22-A103C	Condition D	
	Outgassing	ASTM E-595 24hrs at 125 °C	TML= 0.80% CVCM= 0.29% WVR= 0.28%	
THERMAL	Thermal Resistance³ (°C-in ² /W)	ASTM 5470 (post 1000hr @ max temp)	10 psi	0.54
			50 psi	0.44
			100 psi	0.42
MECH	Adhesion (oz/in) 180° peel strength on Aluminum w/ 24 hr dwell	Polyonics 80313	24	
	Lap Shear (psi)	ASTM D1002	15	
	Probe Tack (g/in)	ASTM D2927	54	
ELEC	Voltage Breakdown⁴ (Vac)	ASTM D149	5300	
	Vol. Resistivity^{4,5} (Ω/cm)	Polyonics Method	7x 10 ⁶	
	Flame Rating⁶	UL-94 ^f	V-0	

¹ Does not include double liners, which add 4-4.5 mil thickness total.

² 1000 hrs at max temperature rating as tested by JESD22-A103E conditions. Cond E= +250°C, Cond D= +200°C, Cond C=+175°C

³ 8.0cm² test head

⁴ Not recommended for applications that require electrical isolation

⁵ Volume Resistivity is tested per Polyonics method, not per ASTM D149, which is designed for electrically isolating materials

⁶ Tested to the UL94 standard by Polyonics



Thermal Interface Material

PT-812

Thermally Conductive Bonding Tape

NOTE: All values shown are averages and should not be used for specification purposes. Test data and test results contained in this document are for general information only and shall not be relied upon by POLYONICS customers for designs and specifications, or be relied on as meeting specified performance criteria. Customers desiring to develop specifications or performance criteria for specific product applications should contact POLYONICS for further information.

References: ASTM: American Society for Testing and Materials (U.S.A.) SI: International Systems of Units.

Polyonics Material Compliance

Table with 2 columns: Compliance Standard (RoHS, REACH, Halogen Free) and Limits/Regulations.

WARRANTY-LIMITATION

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Polyonics World Headquarters

28 Industrial Park Drive
Westmoreland, NH 03467
Ph: 603.352.1415
Fax: 603.352.1936
Email: info@polyonics.com

Polyonics Asia

Fuweo Mansion Rm 411
Hongtu Road 88
Nancheng District
Dongguan, Guangdong, China 523078
Ph: 86.755.8825.0441
Fax: 86.755.8825.2429
Email: infoasia@polyonics.com