

1 MIL POLYIMIDE REMOVABLE LOW CHARGING TAPE

POLYONICS XT-706 is a single coated 1 mil (25 µm) die-cuttable, amber polyimide, low charging removable tape. It includes a 1 mil (25 µm) high-temperature, pressure sensitive acrylic adhesive and liner.

XT-706



APPLICATIONS

- Die cut parts used in electrical, electronics, automotive, aerospace and medical industries.
- Removable low charging thermal masks for the protection of gold fingers of PCBs during wave soldering, solder dip or hot air leveling (HAL)
- Electrical insulation meeting NEMA class H requirements (180 °F to 356 °F/ 82 °C to 180 °C)
- Thermal insulation for electrical motors
- Electrical insulation between flex circuits

FEATURES

- Minimal residue after removal from FR 4 PCBs and aluminum panels post wave solder and reflow
- Low tribocharging PSA
- REACH and RoHS compliant
- Dimensionally stable at high temperatures
- Chemically resistant
- Low out-gassing

SPECIAL CONSIDERATIONS

- Intended for industrial use only
- Designed for removal from FR 4 PCBs and aluminum panels only and must be tested in application for ease of removability and remaining residue.
- Utilizes tight/removable PSA designed to remove cleanly leaving no residue.
- Designed to be removed one time and is not repositionable.
- Long exposure to elevated temperatures may result in adhesive residue post removal.
- The surface on which the tape is applied should be clean, dry and free of any contamination, such as dust, oil or rust. Isopropyl alcohol is recommended to clean the surface.
- Use firm pressure when applying tape to increase the physical contact of the adhesive with the surface.
- Pressure sensitive adhesives will provide stronger bonds to warm surfaces by increasing adhesive flow and peel strength.

TECHNICAL DATA

Properties	Test Method	Average Results (Imperial Units)	Average Results (SI Units)
Thickness	ASTM D-1000		
<i>Film</i>		1 mil	25 µm
<i>Adhesive</i>		1 mil	25 µm
<i>Total</i>		2 mil	50 µm
Dielectric Breakdown	ASTM D-149	> 7.6 kV/mil	> 299 kV/mm
Adhesion	Polyonics 80313		
<i>Stainless Steel</i>	20 minute dwell	≥ 27 oz/in	≥ 30 N/100 mm
	24 hour dwell	≥ 30 oz/in	≥ 33 N/100 mm
Low Tribocharging	Polyonics 80331	< 100 V/in ²	< 100 V/25 mm
Shear	SAFT ASTM D4498	> 392 °F	> 200 °C
Tack	Polyonics 80155	> 1000 g/in	> 39 g/mm
Out-gassing	ASTM E 595-07 24 hours at 257 °F (125 °C)	TML = 0.81%, CVCM = 0.02 % WVR = 0.71 %	
Temperature Exposure	24 hrs @ room temp	Clean removal from PCB and AL panel	
	5 min @392 °F (200 °C)	Clean removal from PCB and AL panel	
	5 min @ 500°F (260 °C)	Clean removal from PCB and AL panel	
	1 month @ room temp	Clean removal from PCB and AL panel	
	1 month @ 104 °F (40 °C)	Clean removal from PCB and AL panel	
Temperature Range	Short term	-40 °F to 302 °F	-40 °C to 150 °C
Shelf Life	1 year below 80 °F (27 °C) and 60% R.H.		

All SI units are mathematically derived from U.S. conventional units.

NOTE: All values shown are averages and should not be used for specification purposes. Adhesion and tack values have a 15% tolerance allotted to the values stated. 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

RoHS (Restriction of Hazardous Substances) EU Directive 2002/95/EC	Limits set forth in Directive 2011/65/EU
REACH (Registration Evaluation and Authorization of Chemicals) EU Directive 1907/2006/EC	Limits set forth in Directive 1907/2006/EC Article 7 (2)

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