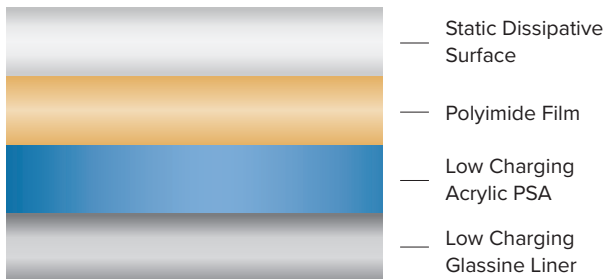


1 MIL POLYIMIDE ESD-SAFE TAPE

POLYONICS XT-622 is a single coated ESD-Safe tape that includes a 1 mil (25 µm) static dissipative polyimide film, a 1 mil (25 µm) low charging, acrylic, pressure sensitive adhesive (PSA) and low charging liner.

XT-622



FEATURES

- Durable, static dissipative top surface
- Low charging adhesive
- Complies with ANSI/ESD S20.20 and IEC 61340 for use in ESD protected areas (EPA)
- Complies with ANSI/ESD S541
- REACH and RoHS compliant
- Dimensionally stable at high temperatures
- Heat, cold, solvent and voltage resistance
- Low out-gassing

APPLICATIONS

- Die cut parts used in electrical, electronics, automotive, aerospace and medical industries where static dissipation is required.
- Low profile static dissipative masks for PCB wave solder process
- Thermal masks for the protection of gold fingers of PCBs during wave soldering, solder dip or hot air leveling (HAL)
- Static dissipation and electrical insulation between flex circuits

SPECIAL CONSIDERATIONS

- Intended for industrial use only
- Special care should be taken to avoid skin oils or finger prints on the static dissipative side of the tape as they will interfere with measuring surface resistivity.
- Ionization recommended to be used in conjunction with ESD-Safe tapes.
- Operators should be grounded and using dissipative equipment, clothing, etc. when applying tapes.
- The static dissipative properties can be reduced from prolonged exposure to temperatures greater than 500 °F (260 °C). Testing your application should be conducted to confirm performance.
- The static dissipative properties can be reduced from exposure to strong acids and bases.
- 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
Surface Resistance	ANSI/ESD STM11.11 Measured at 73 °F +/- 37 °C (23 °C +/- 3 °C) and 12% +/- 3% RH	≥ 10 ⁵ and ≤ 10 ⁹ Ohms	
		4" x 4" area	100mm x 100mm area
ESD Surface Durability	ASTM D4752-10	> 500 IPA Double Rubs	
Low Charging PSA	Modified ESD ADV 11.2	< 125 volts	
		1" x 1" area	25mm x 25mm area
Low Charging Liner	Modified ESD ADV 11.2	< 125 volts	
Shear	SAFT ASTM D4498	> 392 °F	> 200 °C
Tack	Polyonics 80155	≥ 1000 g/in	≥ 39 g/mm
Temperature Range	Short Term	-40 °F to 572 °F	-40 °C to 300 °C
Out-gassing	ASTM E 595-07 24 hours at 125 °C	TML = 0.81%, CVCM = 0.02 % WVR = 0.71 %	
Shelf Life	Film, PSA and Liner	1 year below 80 °F (27 °C) and 60% R.H.	
	Static dissipative and low charging properties	10+ years	

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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Polyonics World Headquarters
 28 Industrial Park Drive
 Westmoreland, NH 03467 U.S.A.

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

polyonics.com

