

1 MIL CLEAR POLYESTER ESD-SAFE FILM

POLYONICS XF-122 is a 1 mil clear polyester film with a durable ESD-Safe non-metallic static dissipative topcoat.

XF-122



FEATURES

- Static dissipative & low-charging
- REACH and RoHS compliant
- Dimensionally stable at high temperatures
- Chemically resistant
- High light transmissivity

APPLICATIONS

- Static dissipative packaging, wraps, protective layers, barriers, printed electronics, etc.

SPECIAL CONSIDERATIONS

- Intended for industrial use only

TECHNICAL DATA

Properties	Test Method	Average Results (Value)	Average Results (Units)
Thickness	ASTM D-1000		
1 mil Polyester		0.001 (25.4)	Inch (µm)
ESD Topcoat		0.0003 (7.6)	Inch (µm)
Total		0.0013 (33.0)	Inch (µm)
Surface Resistance	EOS/ESD STM11.11	>10 ⁴ and < 10 ⁹ Ohms	
ESD Surface Durability	ASTM D4752-10	>500 Double IPA Rubs	
Thermal Expansion 1 mil Polyester	ASTM D696	3.9 x 10 ⁵	in/in/F
Impact Strength	ASTM D696	0.7	Ft-lbs/in
Tensile Strength (MD)¹ 1 mil Polyester	ASTM D638	32,500 (23)	psi (Kg/mm ²)
Flexural Strength	ASTM D790	15,000	psi
Elongation (MD)¹ 1 mil Polyester	ASTM D882	150	% @ 73 °F
Water Absorption	ASTM D570	0.10	% 24hrs
Volume Resistivity 1 mil Polyester	ASTM D-257	10 ¹⁶	Ohm-cm
Dielectric Strength 1 mil Polyester	ASTMD-149	5.0 (197)	kV/mil (kV/µm)

¹ MD=machine direction

DURABILITY TESTING

Properties	Test Method	Test Fluid	Results
Chemical Resistance	MIL-STD-202G, Notice 12, Method 215K MIL-STD-883E, Notice 4, Method 2015.13	Solvent A- 1 part IPA, 3 parts mineral spirits	No visible effect
		Solvent C- Terpene Defluxer	No visible effect
		Solvent D- Saponifier	No visible effect
Weathering Test	ASTM G154	-	No visible effect
Temperature Rating	-40 to 302 °F (-40 to 150 °C) for short durations and 257 °F (125 °C) for 75 min. Higher temperatures, short dwell only.		
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. 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.

Trademarks: XJN+ & Aquanox SSA-TM is a trademark of Kyzen Corporation RE-ENTRY™ is a registered trademark of EnvironsolvInc.

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)
Halogen Free - Restriction use of Halogen (IEC 61249-2-21)	Limits set forth in International Electrochemical Commission

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