



Description: POLYONICS XF-550 is a polyimide film with a permanent pressure sensitive acrylic adhesive and a high opacity, gloss white topcoat specifically designed for thermal transfer printing.

Use: POLYONICS XF-550 is designed for barcode or alphanumeric identification of printed circuit boards, or related electronic components. It is the ideal label to withstand surface mount board processes, on either the top or bottom side of the board. It can also be used on the topside of the board in mixed processes, and is recommended for the bottom side that is directly exposed to the wave solder environment.

Properties: The XF-550 topcoat, in combination with the appropriate thermal transfer ribbon, passes the requirements of **MIL-STD-202G, Notice 12, Method 215K**. The print resists smearing, even when the board and label are directly removed from a reflow or wave solder environment. Preheating the labeled product can further enhance print permanence in the case of extreme solvent and/or abrasion exposure, although this is not typically required for board processing applications.

Properties	Test Methods	Average Results	
		USA Units	SI Units
Thickness	ASTM D1000		
-Substrate		0.0027 inch	0.068 mm
-Adhesive		0.0020 inch	0.050 mm
-Total		0.0047 inch	0.118 mm
Adhesion	Polyonics 80313		
-Stainless Steel	20 minute dwell	≥ 35 oz/in	38N/100 mm
	24 hour dwell	≥ 40 oz/in	44N/100 mm
Tack	Polyonics 80155		
		≥ 1200 g/in	
Temperature Rating:	-40 to 1000°F (-40 to 537°C)		
Shelf Life	1 year below 80°F (27°C) and 60% R.H.		
UL File #	TBD		
Recommended Ribbons	Sony 4070, Union Chemcar US300, DNP R510		

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 10% tolerance allotted to the above 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.

Labels printed with recommended thermal transfer ribbon. Labels printed with 6.7 mil X dimension bars at 2:5 ratio. Labels exposed to indicated environments:

Properties	Test Method	Test Environment	PCS ¹	Read Rate ²
Heat/Chemical	Polyonics	Control	99%	100%
		230°C heat, 5 minutes	99%	100%
		Kyzen Corp. Aquanox SSA 30% aqueous, 40-45°C, 5 min.	100%	99%
		Re-Entry KNI 2000 Terpene, 40-45°C, 5 min.	98%	100%
		Alpha Metals Inc. EC-7R Terpene, 40-45°C, 5 min.	98%	100%
		Alpha Metals Inc. 2110 Saponifier 6% aqueous, 65-70°C, 5 min.	97%	100%
		Isopropanol 99% 65-70°C, 5 min.	99%	100%
		Kyzen XJN+, 30% 5 min.	99%	100%

¹PCS - Print Contrast Signal. PCS determined with Quick Check 650, 0.005" aperture, 660 nm wave length.

Quick Check 650 manufactured by : Photographic Sciences Corp.

² Read rate determined using PSC 850 laser scanner.

Properties	Test Method	Test Fluid	Results
Chemical Resistance	MIL-STD-202G, Notice 12, Method 215K		
		Solvent A- 1 part IPA, 3 parts Mineral Spirits	No visible effect
		Solvent B- 1,1,1 Trichloroethane	Solvent deleted per notice 12
		Solvent C- Terpene defluxer	No visible effect
		Solvent D- Saponifier	No visible effect

Trade Marks:

XJN+ & Aquanox SSA-™ is a trademark of Kyzen Corporation.

EC-7R™ is a trademark of Petroferm Inc.

RE-ENTRY™ is a registered trademark of Environsolv Inc.

References:

ASTM: American Society for Testing and Materials (U.S.A.)

SI: International Systems of Units.

RoHS Compliant


 SJT11364-2006 & EU20295/EC
2003/11/EC
76/69/EEC

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The above warranties extend solely to Buyer and all warranty claims must be made by Buyer. Rework or Replacement shall neither extend nor decrease the original warranty period. The term of all warranty periods shall not exceed thirty (30) days from the date of the original shipment.

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POLYONICS, Inc. Unit 4 867 Route 12 Westmoreland, NH 03467 USA

(603) 352-1415 FAX (603) 352-1936

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