



Description: POLYONICS XF-563 is a polyimide film with a permanent pressure sensitive acrylic adhesive and a high opacity, MATTE Tan or “Buff” colored topcoat specifically designed for EITHER thermal transfer or dot matrix printing. XF-563 is the 1 mil equivalent to XF-541 (“Super buff”). XF-563 can also be printed with laser and ink jet printers, but the labels will require lamination because the inks are not chemically resistant.

Use: POLYONICS XF-563 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 top side of the board in mixed processes, and is recommended for the bottom side which is directly exposed to the wave solder environment. The XF-563 material when used with the appropriate ribbon will withstand exposure to a wide range of ether-polyol solvents, such as Zestron® (Dr. O.K.Wack Chemie GmbH), Prozone, or other active solvents such as Loctite 7452 Accelerator.

Properties: The print resists smearing, when immersed in Zestron for 5 minutes, and then wiped with a lint free cloth. 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. Printed in combination with the appropriate thermal transfer ribbon, passes the requirements of **MIL-STD-202G, Notice 12, Method 215K**.

Properties	Test Method	Average Results	
		USA Results	SI Units
Thickness	ASTM D1000		
-Substrate		0.0017 inch	0.043 mm
-Adhesive		0.0010 inch	0.025 mm
-Total		0.0027 inch	0.068 mm
Adhesion	Polyonics 80313		
-Stainless Steel	20 minute dwell	≥ 27 oz/in	30N/100 mm
	24 hour dwell	≥ 30 oz/in	33N/100 mm
Tack	Polyonics 80155		
		≥ 1000 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.	
Recommended Ribbons		Ricoh B110CR, Sony 4070	

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 stated values. 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 Resistance	Polyonics	Control	99%	100%
		Zestron, 5 min. 25°C	100%	99%

¹PCS - Print Contrast Signal. PCS determined with Quick Check 650, 0.005" aperture, 660 nm wavelength. Quick Check 650 manufactured by : Photographic Sciences Corp.

² Read rate determined using a PSC Quick check 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

Reference:

Zestron-

Trademarks:

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

SI: International System of Units



WARRANTY-LIMITATION

Polyonics' products are sold with the understanding that the Buyer will test them in actual use and determine for him/herself their adaptability to his/her intended uses. Polyonics warrants to the buyer that its products are free from defects in material and workmanship, but limits its obligation under this warranty to replacement of the products shown to Polyonics' satisfaction to have been defective, provided that the Buyer has complied with the handling, storage and shelf life requirements as specified by Polyonics in applicable materials specifications.

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