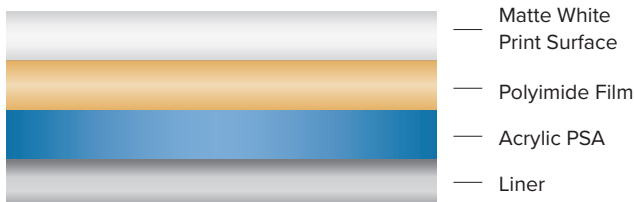


1 MIL MATTE WHITE POLYIMIDE LABEL

POLYONICS XF-583 is a 1 mil (25 µm) polyimide film with a high temperature, acrylic, pressure sensitive adhesive and a high opacity, matte white topcoat specifically designed for thermal transfer printing.

XF-583

FEATURES

- Thermal transfer printable top surface
- UL 969 approved label and ribbon combinations
- Dimensionally stable at high temperatures
- Chemical and abrasion resistant
- Heat, cold and solvent resistant
- Low out gassing
- Passes the requirements of MIL-STD-202G, Notice 12, and Method 215K and MIL-STD-883E, Notice 4, Method 2015.13
- Resists smearing even in absence of preheat prior to chemical wash
- REACH and RoHS compliant

APPLICATIONS

- PCB identification
- Electronic components tracking
- Labeling exposed to extreme temperatures and/or harsh chemicals
- IC labeling for work in process, permanent ID and warranty labeling
- Product ID, asset tracking
- Metals processing applications: coils, rolls, slabs
- Labels on products stacked during manufacturing

SPECIAL CONSIDERATIONS

- Intended for industrial use only
- The surface on which the label 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 label 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.
- Topcoat and print should not be contacted while exposed to elevated temperature.

TECHNICAL DATA

Properties	Test Method	Average Results (Imperial Units)	Average Results (SI Units)
Thickness	ASTM D-1000		
Top Sheet		1.5 mil	38 µm
Adhesive		1 mil	25 µm
Total		2.5 mil	63 µm
Adhesion	Polyonics 80313		
Stainless Steel	20 minute dwell	≥ 27 oz/in	≥ 30 N/100 mm
	24 hour dwell	≥ 30 oz/in	≥ 33 N/100 mm
Tack	Polyonics 80155	≥ 1000 g/in	≥ 39 g/mm
Out Gassing	ASTM E595	TML=0.62%, CVCM <0.01%, WVR=0.57%	
Temperature Rating	Long Term	100 hrs @ 302 °F	100 hrs @ 150 °C
	Operating	5 min @ 500 °F	5 min @ 260 °C
	Short Term	90 sec @ 572 °F	90 sec @ 300 °C
Shelf Life	1 year below 80 °F (27 °C) and 60% R.H.		
UL File #	PGJ12.MH19503		
CUL File #	PGJ18.MH19503		
UL Approved Ribbons	Ricoh B110CR, Ricoh B110C, Armor AXR 7+, JPP1, Union Chemicar US300, DNP R510 HF		
CUL Approved Ribbons	Ricoh B110CR, Ricoh B110C, Armor AXR 7+, Union Chemicar US300		

DURABILITY TESTING: HEAT/CHEMICAL

Test Method	Test Fluid	Temperature	Time	SC ¹	MOD ²
Polyonics 80386	Kyzen Corp. Aquanox SSA 30% aqueous	104 °F – 113 °F (40 °C – 45 °C)	5 min	≥ B grade	≥ B grade
	Re-Entry KNI 2000 Terpene	104 °F – 113 °F (40 °C – 45 °C)	5 min	≥ B grade	≥ B grade
	Alpha Metals Inc. EC-7R Terpene	104 °F – 113 °F (40 °C – 45 °C)	5 min	≥ B grade	≥ B grade
	Alpha Metals Inc. 2110 Saponifier, 10% aqueous	149 °F – 158 °F (65 °C – 70 °C)	5 min	≥ B grade	≥ B grade
	Isopropanol 99%	149 °F – 158 °F (65 °C – 70 °C)	5 min	≥ B grade	≥ B grade
	Kyzen XJN+, 30% aqueous,	149 °F – 158 °F (65 °C – 70 °C)	5 min	≥ B grade	≥ B grade

DURABILITY TESTING: CHEMICAL RESISTANCE

Test Method	Test Fluids	Results
MIL-STD-202G, Notice 12, Method 215K, MIL-STD-202G, Notice 4, Method 2015.13K	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

NOTES:

All values shown are averages and should not be used for specification purposes.

Adhesion and tack values have a 15% tolerance allotted to the above values stated.

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

¹SC=signal contrast, measured via Web Scan TruRemote Wide Angle per ISO 15415.

²MOD=modularity, measured via Web Scan TruRemote Wide Angle per ISO 15415

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

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 obligations 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.

The above warranties extend solely to Buyer and all warranty claims must be made by the Buyer. Rework or Replacement shall neither exceed nor decrease the original warranty period.

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