

1M MAT WH HI-TEMP Polyimide/S2831/55#BG

Facestock		Facestock physical properties				
1 Mil Matte White Topcoated Polyimide is a durable film facestock featuring excellent tear strength, heat resistance, dimensional stability, and chemical resistance. The high opacity, matte white topcoat was specifically designed for thermal transfer printing. It offers excellent scuff, scratch, UV, and temperature resistance. Can withstand the higher temperatures associated with lead-free solder processes and resists "solder balling."		Imperial Value	Units	Metric Value	Units	
	Caliper: ASTM D1000	0.0017	inches	43.18	microns	
	Tensile: ASTM D882	MD	24,000	PSI	1,687	kg/sq. cm
		CD	24,000	PSI	1,687	kg/sq. cm

Adhesive		Adhesive physical properties				
S2831 high performance acrylic based pressure sensitive adhesive featuring high ultimate peel and excellent PCB processing chemical resistance.		Imperial Value	Units	Metric Value	Units	
	Type:	Acrylic				
	Caliper: ASTM D1000	0.0018	inches	45.72	microns	
	Standard Coat Wt:			0	g/sq m	
	Minimum Appl Temp:	50	F	10	C	
	Service Temp Range:	Min	-40	F	-40	C
		Max	500	F	260	C
Loop Tack Stainless Steel: PSTC11	25.6	oz/inch	28.2	N/100 mm		

Liner		Liner physical properties				
55# BG A bleached white glassine liner with excellent smoothness and roll label converting properties. Not recommended for sheeting applications		Imperial Value	Units	Metric Value	Units	
	Caliper: ASTM D1000	0.0031	inches	78.7400	microns	
	Basis Wt: TAPPI T410 <small>*(24" x 36" 500 sheets)</small>	55.0	lb/ream	88.0	g/sq m	
	Tensile: ASTM D882	MD	54.0	lb/inch	237.6	N/25 mm
		CD	23.0	lb/inch	101.2	n?25 mm
	Tear: TAPPI T414	MD	1.9	ounces	54.0	grams
CD		2.3	ounces	65.3	grams	

Liner Release:		Total Construction Caliper
TMLI 90° removal of Liner from Facestock.		(approximate):
Rate of Removal	Grams/2" Width	
400 inches/min.	50	0.0066 inches (6.6 mils; 161.7 microns)

Features and Benefits

- Durable high temperature resistant facestock
- Excellent tear strength and dimensional stability
- Excellent heat and chemical resistance
- UL Recognized for Printed Circuit Boards

Service Temperatures:

Short Term (90 seconds): 572F (300C); moderate discoloration*
 2 Hour Exposure: 374F (190C); slight discoloration*
 Long Term (1000 hours): 248F (120C); slight discoloration*
 *Label remains functional even after moderate discoloration

Typical Adhesive Performance (off stainless steel lab panels at room temperature)

180 Degree Peel Adhesion
 20 minute dwell: 1.4 lbs (24.6 N/100 mm)

72 hour dwell: 2.2 lbs (38.7 N/100 mm)
 Loop Tack: 1.6 lbs (28 N/100 mm)

Applications and Uses

This product is ideal for labeling printed circuit boards as well as for automotive, aerospace, medical and manufacturing applications where high temperature and solvent resistance are critical. It is able to withstand surface mount circuit board processes on either the top or bottom side of the board. Can also be used on the top side of the board in mixed processes and recommended for the bottom side when directly exposed to the wave solder environment.

Printing and Converting

For thermal transfer and flexo printing. Due to thinner material, auto print/apply should be checked carefully. When used with appropriate ribbon will withstand temperature spikes up to 1000 °F (538 °C).

RoHS/Regulation 2002/95/EU

The substances listed in article 4 lid 1 of 2002/95/EU (RoHS) are not intentionally used in this product. The concentration limits of these substances will not exceed the set maximum concentration limits as provided in the proposed amendment for 2002/95/EU.

Shelf Life

Unless specified otherwise in this document, one year when stored at 72 °F at 50% RH

Note:

The technical data presented is from tests we believe to be reliable but should be considered representative or typical only and should not be used for specifications purposes. This product should be tested thoroughly under end-use conditions to ensure it meets the requirements of the specific application.

Appendix

Performance Data:

The following technical data should be considered representative or typical only and should not be used for specification purposes.

Surface	Initial (15 minute dwell)		72 Hours at Room Temperature		72 Hours at 120°F		9
	oz/in	N/100mm	oz/in	N/100mm	oz/in	N/100mm	
1. Stainless Steel	33.6	37	49.6	54.6			o

Compliance Recognition: UL CSA C-U



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Substrates	Minimum Temperature		Maximum Temperature		(I=Indoor C I/O=Indoor & C
	°F	°C	°F	°C	
1. FR-4 PWB	14	-10	500	260	I

Recognized Ribbons: Dai Nippon "R-510", Japan Pulp & Paper "Resin 1", Ricoh "B110C", Sony "TRX75"

The information on compliance conditions, substrates, and printing products contained in the tables above represent a summary of recognized or acceptable conditions and printing products. Other conditions, substrates, and printing products may be recognized with this material. Please consult the specific compliance organization records or specific files for a complete listing.

Warranty

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Avery Dennison
Fasson Roll North America
8080 Norton Parkway
Mentor, OH 44060
800-944-8511 (US & Canada)
52-55-5093-0100 (Mexico)

