

2M Gloss White Polyimide/S8088/50#SCK

Product Data Sheet

Spec#: 78028

Facestock		Facestock physical properties					
2 Mil Gloss White TC Polyimide is a durable glossy white top coated polyimide film with excellent tear strength, heat resistance, dimensional stability, and chemical resistance. The high opacity white top coating was specifically designed for thermal transfer printing and offers excellent scuff, scratch, UV, high temperature, and solvent resistance.		Imperial Value	Units		Metric Value	Units	
		Caliper: ASTM D1000	0.0027	inches		68.58	microns
		Tensile: ASTM D882	MD	34,000	PSI	2,390	kg/sq. cm
			CD	34,000	PSI	2,390	kg/sq. cm

Adhesive		Adhesive physical properties					
S8088 is a high performance acrylic based pressure sensitive adhesive featuring high ultimate adhesion and excellent resistance to PCB processing chemicals. Capable of withstanding high temperatures for extended periods of time.		Imperial Value	Units		Metric Value	Units	
		Type:	solvent acrylic				
		Caliper: ASTM D1000	0.0009	inches		22.86	microns
		Standard Coat Wt:				27	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	31.5	oz/inch		34.7	N/100 mm

Liner		Liner physical properties					
50# Super Calendered kraft bleached paper stock with very good die cutting and matrix stripping properties. Used for standard roll-to-roll applications. Supplied without Anit-Block Coating. Not recommended for sheeting applications.		Imperial Value	Units		Metric Value	Units	
		Caliper: ASTM D1000	0.0032	inches		81.2800	microns
		Basis Wt: TAPPI T410 <small>* (24" x 36" 500 sheets)</small>	57.7	lbs		92.3	g/sq m
		Tensile: ASTM D882	MD	51.0	lb/inch	224.4	N/25mm
			CD	22.7	lb/inch	99.9	N/25mm
		Tear:	MD	2.0	ounces	56.6	grams

	TAPPI T414	CD	2.7	ounces	76.4	grams
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Liner Release: TMLI 90° removal of Liner from Facestock.		Total Construction Caliper (approximate):
Rate of Removal	Grams/2" Width	
400 inches/min.	55	0.0068 inches (6.8 mils; 172.7 microns)

Features and Benefits

- Durable high temperature resistant facestock and adhesive
- Excellent tear strength and dimensional stability
- Good chemical resistance
- UL Recognized; File MH17205

Service Temperatures

Short term (90 seconds): 572oF (300oC) moderate discoloration, but still functional

Medium term (2 hours): 338oF (170oC) no visible effect

Long term (1000 hours): 212oF (100oC) no visible effect

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. This product can also be used on the top side of the board in mixed processes and suitable for use on the bottom side when directly exposed to wave solder environment. This product meets MIL-STD-202G, Method 215J.

Printing and Converting

The top coat is designed for thermal transfer and flexo printing. when used with appropriate ribbons, will with stand temperature spikes up to 500oF (260oC). Suggested thermal transfer ribbons: DNP "R-510" and "R-300". Other ribbons may be suitable. Testing is highly recommended to insure suitable results. It may be necessary to exposed printed labels to high heat to 'set' the print, prior to any print testing. Due to the thinness of the facestock, auto-dispensing and application should be thoroughly tested prior to committing to production.

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		96 Hours at 150°F (65°C) & 80% Relative Humidity	
	oz/in	N/100mm	oz/in	N/100mm	oz/in	N/100mm	oz/in	N/100mm
1. Stainless Steel	31.5	34.7	42.2	46.4	53.3	58.6	49.9	54.9
2. Aluminum	39.7	43.7	48.8	53.7	61.1	67.2	58.9	64.8
3. Polypropylene	0.32	0.4	0	0	0	0	0	0
4. HDPE	0	0	0.8	0.9	0	0	4.32	4.8
5. LDPE	0	0	0	0	1.76	1.9	0	0
6. ABS Plastic	42.9	47.2	49.9	54.9	36.6	40.3	21.6	23.8

Environmental Performance: Chemical Resistance test results

The performance results are based on 4 hour immersions at room temperature unless otherwise noted (gasoline is 1 hour). Samples were applied to stainless steel panels and conditioned for 24 hours before immersion and evaluated immediately upon removal. Adhesion measured at 180° peel.

Chemical	Adhesion to Stainless Steel		Visual	Edge
	oz/in	N/100mm	Appearance	Penetration mm
1. 70% IPA	74.2	81.6	No Change	0
2. Tide- Detergent	30.1	33.1	No Change	0
3. Engine Oil (10W30)	79.7	87.7	No Change	0
4. Water	60.3	66.3	No Change	0

5. Ammonia - pH 11	58.6	64.5	No Change	0
6. 409- Cleaner	61.6	67.8	No Change	0
7. Toluene	44.3	48.7	No Change	0
8. Brake Fluid	79.5	87.5	No Change	0
9. Reference Fuel C	55	60.5	No Change	0
10. Kerosene K1	77.4	85.1	No Change	0
11. Heptane	71.6	78.8	No Change	0

Compliance Recognition: UL CSA C-U



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Substrates	Minimum Temperature		Maximum Temperature		(I=Indoor Only I/O=Indoor & Outdoor)
	°F	°C	°F	°C	
1. Aluminum	-40	-40	302	150	I
2. Stainless Steel	-40	-40	212	100	I
3. Galvanized Steel	-40	-40	302	150	I
4. Epoxy Resin PWB	-40	-40	212	100	I

Recognized Ribbons: Armor "AXR7+", Dai Nippon "R-510", ITW "B324", Ricoh "B110CR", Sony "TR4070", and others.

409- is a registered trademark of the Clorox Company
Tide- is a registered trademark of the Procter & Gamble Company

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