

DURABLE PORTFOLIO


Product Data Sheet
Spec#: 78385
2M WH PET TC/S8001/50#SCK

Facestock		Facestock physical properties				
2 Mil White Polyester TC is a homogeneously pigmented white facestock featuring excellent tear strength, heat resistance, dimensional stability, opacity, and chemical resistance.		Imperial Value	Units	Metric Value	Units	
	Caliper: ASTM D1000	0.0020	inches	50.80	micron	
	Tensile: ASTM D882	MD	21,300	PSI	1,497	kg/cm ²
		CD	28,400	PSI	1,997	kg/cm ²

Adhesive		Adhesive physical properties				
S8001 is a high performance, clear permanent emulsion acrylic pressure sensitive adhesive with balanced adhesion to a wide variety of substrates, including low surface energy plastics, engineering grade plastics, bare, coated, or painted metals, including powder coat and enamel paints. It features medium tack and excellent chemical and UV resistance for outdoor industrial applications.		Imperial Value	Units	Metric Value	Units	
	Type:	Emulsion Acrylic				
	Caliper: ASTM D1000	0.0010	inches	25.40	microns	
	Standard Coat Wt:			27	g/sq m	
	Minimum Appl Temp:	50	F	10	C	
	Service Temp Range:	Min	-40	F	-40	C
		Max	302	F	150	C
Loop Tack Stainless Steel: PSTC11	32.0	oz/inch	35.2	N/100 mm		

Liner		Liner physical properties				
50# SCK is a bleached, super calendered paper stock with very good die-cutting and matrix stripping properties. Used for standard roll-to-roll applications. Not recommended for sheeting.		Imperial Value	Units	Metric Value	Units	
	Caliper: ASTM D1000	0.0032	inches	81.2800	micron	
	Basis Wt: TAPPI T410 <small>* (24" x 36" 500 sheets)</small>	54.5	lbs/ream	87.2	g/sq m	
	Tensile: ASTM D882	MD	48.0	lbs/inch	211.2	N/25 mm
		CD	26.0	lbs/inch	114.4	N/25 mm
	Tear: TAPPI T414	MD	1.8	ounces	51.1	grams
CD		2.1	ounces	59.6	grams	

Liner Release:		Total Construction Caliper
TMLI 90° removal of Liner from Facestock.		(approximate):
Rate of Removal	Grams/2" Width	
400 inches/min.	30	0.006 inches (6 mils; 152 microns)

Features and Benefits

- Opaque white facestock with very good hiding power and physical strength
- Glossy clear top coat that accepts most flexographic, letterpress, and rotary screen inks.
- Excellent thermal transfer printability with some resin enhanced wax, and most resin based ribbons.
- Excellent chemical resistance and good outdoor durability
- UL and c-UL Recognized. See files MH8212 and MH17205 for specific details on recognized conditions

Applications and Uses

Suitable for a variety of durable labeling applications such as:

- Product identification
- Barcodes
- WIP (Work-in-process) tracking labels
- Asset tags

Printing and Converting

The top coat is designed for printing by most solvent, UV cured, and water-based flexographic inks; UV cured letterpress and rotary screen inks. Specially formulated inks are not normally necessary, however, testing is recommended prior to final ink system selections. The following press inks are UL Recognized at 150°C (302°F) without the need for overlaminations. Color recognitions or restrictions and additional chemical resistances are noted for each ink system:

- ▶ Water-based flexographic inks with lube oil resistance: Environmental Inks & Coatings' "DR III FR" {recognized in all colors for indoor use, blue and black for outdoor use}, "Aqua Plus" and "Aqua Film III" {recognized for indoor use in blue, black, and red, for outdoor use in blue and black}; Flint Ink's "HydroFilm ACE" {recognized in blue, black, and red for indoor and outdoor use}; and ACTEGA WIT, Inc. "Versifilm Plus ULF" {recognized in all colors for indoor and outdoor use}, and "Water Gloss" {recognized in all colors for indoor and outdoor use}.
- ▶ UV flexographic inks with lube oil and gas splash resistance: Environmental Inks & Coatings' "UltraFlex III SFR" {recognized in all colors for indoor use; blue, black and red for outdoor use}; Flint Ink's "Flexocure Sigma" {recognized in all colors for indoor use; blue, black and red for outdoor use or with gasoline}; and ACTEGA WIT, Inc. "PharmaFlex UV" {recognized in blue, black, and red for indoors and outdoor use}.
- ▶ UV ink jet: EFI Jetrion 4000 series {recognized with lube oil and gas splash resistance in all colors for indoor and outdoor use}.

Note: With most press inks, overlamination is required to meet the abrasion requirement for c-UL (CSA) recognition. At the 150°C recognition temperature, overlaminations darken enough to hinder the readability of most yellow colored inks. If overlamination is desired with UL or c-UL recognition, seek recognition at a lower maximum use temperature.

Also suitable for thermal transfer printing with select ribbons and printers. Consult product recognition files or the Fasson Thermal Transfer Ribbon Guide for specific recommendations. This product can be die cut and stripped at high speeds on most web-fed presses. Sample labels in a variety of shapes have been successfully dispensed and applied with standard labeling systems.

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. Data was generated from samples with 2 mil polyester facestocks, applied to clean laboratory panels. See Tech Bulletin "Achieving Maximum Adhesion" for specifics.

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. Aluminum	33.8	37.2	58	63.9	66.9	73.6	98.4	108.3
2. ABS Plastic	42.3	46.5	68.9	75.8	54.7	60.1	71.8	79.0
3. Polypropylene	11.0	12.1	38.4	42.1	33.9	37.3	27.7	30.5
4. HDPE	25.5	28.1	32	35.2	31.1	34.2	36.2	39.8
5. LDPE	8	8.8	56	61.6	6.8	7.5	16.5	18.2
6. Stainless Steel	35.2	38.7	60.4	66.5	42.9	47.2	50.6	55.7

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 Appearance	Edge Penetration mm
	oz/in	N/100mm		
1. 70% IPA	46.2	50.8	No change	0
2. Tide® Detergent	40.1	44.1	No change	0
3. Engine Oil (10W30)	51.2	56.4	No change	0
4. Water	19	20.9	No change	0
5. Ammonia - pH 11	44.8	49.3	No change	0
6. 409® Cleaner	49.2	54.1	No change	0
7. Toluene	21.7	23.9	No change	0
8. Brake Fluid	46.4	51	No change	0
9. Reference Fuel C	39.4	43.3	No change	0
10. K1 Kerosene	45.7	50.2	No change	0

11. Heptane	39.6	43.5	No change	0
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Compliance Recognition: UL, C-U

Underwriters Laboratories, Inc.

Substrates	Minimum Temperature		Maximum Temperature		(I=Indoor Only I/O=Indoor & Outdoor)
	°F	°C	°F	°C	
1. Acrylic Paint	-40	-40	302	150	I/O
2. Acrylic PCP*	-40	-40	302	150	I/O
3. Alkyd Enamel	-40	-40	302	150	I/O
4. Aluminum	-40	-40	302	150	I/O
5. Anodized Aluminum	-40	-40	302	150	I/O
6. Epoxy Paint	-40	-40	302	150	I/O
7. Epoxy PCP*	-40	-40	302	150	I/O
8. Galvanized Steel	-40	-40	302	150	I/O
9. Polyester Paint	-40	-40	302	150	I/O
10. Polyester PCP*	-40	-40	302	150	I/O
11. Polyurethane PCP*	-40	-40	302	150	I/O
12. Blended PCP*	-40	-40	302	150	I/O
13. Porcelain	-40	-40	302	150	I/O
14. Stainless Steel	-40	-40	302	150	I/O
15. Melamine	-40	-40	212	100	I/O
16. Phenolic	-40	-40	212	100	I/O
17. Polycarbonate	-40	-40	212	100	I/O
18. Thermoset Polyester	-40	-40	212	100	I/O
19. ABS Plastic	-40	-40	176	80	I/O
20. PBT Plastic	-40	-40	176	80	I/O
21. Polypropylene	-40	-40	176	80	I/O
22. Polyethylene			176	80	I
23. Polyphenylene Oxide	-40	-40	176	80	I/O
24. Polystyrene	-40	-40	176	80	I/O
25. and others					

26. *PCP=Powder Coat Paint			
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Recognized Ribbons: Armor "AXR7+", Armor "AXR8", Armor "AXR600", Astro Med Inc "R-5", Astro Med "RF", Astro Med "RY", Coding Prds "5940", DNP "R-300", DNP "R-510", DNP "TR4070", DNP "Signature Series Resin", Imak "SP-410", Imak "SP-330", Imak "Primemark", Intermec "TMX 1500", Intermec "TMX 3200", ITW "B324", Kurz "K300", Kurz "K500", Kurz "K501", NCR "Promark 3", NCR "Pacesetter", NCR "Ultra V", NCR "Perma Max", NCR "K3", Ricoh "B110C", Ricoh "B110CX", Ricoh "B110CR", Ricoh "120EC", Sato Corp. "Premier 1", UCA "US300", Zebra "5095", Zebra "5100", Zebra "5175", Zebra "5463", Zebra "Z-4100", and others.



Tested by Underwriters Laboratories, Inc.
to meet the requirements of the Canadian Standards Association for
labeling materials

Substrates	Minimum Temperature		Maximum Temperature		(I=Indoor Only I/O=Indoor & Outdoor)
	°F	°C	°F	°C	
1. Electrostatic Paints	-40	-40	302	150	I/O
2. Metals	-40	-40	302	150	I/O
3. Plastics Group I	-40	-40	212	100	I/O
4. Plastics Group II	-40	-40	176	80	I/O
5. Plastics Group III	-40	-40	176	80	I/O
6. Plastics Group IV	-40	-40	176	80	I/O
7. Plastics Group V	-40	-40	176	80	I/O
8. Plastics Group VI	-40	-40	176	80	I/O
9. Plastics Group VII	-40	-40	176	80	I/O
10. Plastics Group VIII	-40	-40	176	80	I/O

Recognized Ribbons: Armor "AXR7+", Armor "AXR8", Armor "AXR600", DNP "R-300", DNP "R-510", DNP "TR4070", DNP "Signature Series Resin", Kurz "K500", NCR "Promark 3", Ricoh "B110C", Ricoh "B110CR", Sato Corp. "Premier 1", UCA "US300", Zebra "5100", and others.

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