



PERFORMANCE GUIDE

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FCD6914 2 mil White PET / MP690 / 3.2 mil SCK

Revised: 08/2014 KSH

Description	Applications and End Uses								
<p>Product FCD6914 - 2 mil gloss top-coated, white polyester with a durable and aggressive permanent acrylic adhesive and a 3.2 SCK liner.</p> <p><i>Recognized for UL969 component labels. This product is UL Recognized for indoor and outdoor applications. For specific recognition, consult UL file No. PGGU2.MH12627 Marking and Labeling Systems Materials and PGJ12.MH26726 Printing Materials.</i></p> <p><i>CUL recognized under UL file No. PGGU8.MH12627 Marking and Labeling System Materials Certified for Canada and PGJ18.MH26726 Printing Materials.</i></p> <p><i>BS 5609 Compliant. This product conforms to BS 5609: 1986 Section 2 – ‘Marine and Laboratory Performance of Label Base Materials’.</i></p>	<p>Designed for use in nameplate, durable equipment and drum label applications. Excellent flexo and thermal transfer printability with most resin and wax/resin ribbons.</p> <p>Used for warning and instructional labeling that contains critical information about safety and handling. These labels serve various functions including logos, warning labels, and serial numbers. These labels are designed to last the life of the product, adhere to difficult substrates such as plastics and metals, and may require higher heat resistance.</p>								
<p>Face 2 mil white polyester, topcoated for superior printability via flexo and thermal transfer. Features high strength, tear resistance, dimensional stability and temperature resistance.</p>	Physical Properties without Adhesive								
Caliper, inches	0.002 (2 mils)	ASTM D-2103							
Tensile, lbs./in.	40 MD 60 CD	TAPPI-494							
<p>Adhesive MP690 is a high performance, high tack, durable, permanent acrylic emulsion with excellent ultimate adhesion and mandrel hold. It is extremely chemical and solvent resistant and has very good adhesion to various high and low energy substrates.</p>	Physical Properties of Adhesive								
Thickness, inches	0.001 +/- 10%	CTM-8 (30 min. applied) Reference: PSTC-101A							
180° Peel Adhesion, lbs./in.	3.8	CTM #45 Curwood Polyester Film Dry Surface							
<i>Temperature Ranges</i>									
Minimum Application	+50°F (10°C)	PSTC11							
Service Ranges	-40°F to +302°F (-40°C to +150°C)								
Loop Tack –	3.8								
Stainless Steel, lbs./in.									
<p>Liner A semi-bleached, super-calendared kraft liner. Excellent for die cutting and stripping. The liner is coated with a release system designed for label dispensing. Primarily for roll-to-roll applications where a more demanding liner is needed.</p>	<table border="0"> <tr> <td data-bbox="474 1724 636 1753">Caliper, inches</td> <td data-bbox="1003 1724 1166 1753">0.0032+/- 10%</td> <td data-bbox="1256 1724 1403 1753">TAPPI T-411</td> </tr> <tr> <td data-bbox="474 1757 876 1787">Basis Weight, lbs. (24" x 36"/500 sheets)</td> <td data-bbox="1003 1757 1127 1787">50 +/- 10%</td> <td data-bbox="1256 1757 1403 1787">TAPPI T-410</td> </tr> </table>			Caliper, inches	0.0032+/- 10%	TAPPI T-411	Basis Weight, lbs. (24" x 36"/500 sheets)	50 +/- 10%	TAPPI T-410
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Basis Weight, lbs. (24" x 36"/500 sheets)	50 +/- 10%	TAPPI T-410							
<p>Shelf Life Product retains its performance and properties for two years from date of manufacture when stored at 72° F and 50% relative humidity.</p>									

CALL 1-800-548-3456 for additional product information

Compliance Recognition: cUL (CSA C22.2 No. 0.15)



Substrates	Maximum Temperature		(I=Indoor Only I/O= Indoor & Outdoor)	Additional Conditions
	° F	° C		
1. Metals	302	150	I/O	C,G,K,O
2. Electrostatic coated metal A	302	150	I/O	C,G,K,O
3. Electrostatic coated metal B	257	125	I/O	C,G,K,O
4. Electrostatic coated metal C	257	125	I/O	C,G,K,O
5. Electrostatic coated metal D	302	150	I/O	C,G,K,O
6. Plastic Group I	212	100	I/O	-
7. Plastic Group II	176	80	I/O	-
8. Plastic Group III	176	80	I/O	-
9. Plastic Group IV	176	80	I/O	-
10. Plastic Group V	176	80	I/O	-
11. Plastic Group VI	176	80	I/O	-
12. Plastic Group VII	176	80	I/O	-
13. Plastic Group VIII	176	80	I/O	-
14. Porcelain (PRCLN)	302	150	I/O	C,G,K,O

Compliance Recognition, Inks: UL PGJ12 / cUL PGJ18

UL Recognized Thermal Transfer Ribbon

DNP (Previously Sony Chemicals) TR6075 Resin Ribbon, DNP R300 Resin Ribbon, DNP R510 Resin Ribbon, DNP TR6070 Resin Ribbon, ITW B324 Resin Ribbon, Zebra 5100 Resin Ribbon, Zebra 5095 Resin Ribbon, limak SP330 Resin Ribbon, Fuji Copian FTX 308 Resin Ribbon, Datamax SDR Resin Ribbon, Datamax PGR Wax-Resin Ribbon, Datamax SDR-D Resin Ribbon, Datamax SDR-5 Resin Ribbon, Datamax IQMID+ Wax-Resin Ribbon and Datamax IQRES+ Resin Ribbon

UL Recognized Flexo Inks

ACTega WIT Versifilm Plus Series (Water based), ACTega WIT Optafilm Series (Water based) and ACTega WIT Pharmaflex UV ULF (UV Ink System), Environmental Inks Film III Series, Flint Group Narrow Web Flexocure FORCE (UV Ink System) and Flint Group Hydrofilm ACE (Water based) Series

UL Recognized Digital Inks

EFI "Jetrion Series" UV Ink Set (All Colors)
INX Digital International NWUV UV Inkjet Series

Compliance Recognition, Inks: BS 5609: 1986 Section 3 – Printed Labels

ITW Thermal Films C5440 Red Resin Ribbon
ITW Thermal Films B325 Flexible Extreme Resin Ribbon
ITW Thermal Films B324 Durable Extreme Resin Ribbon

CALL 1-800-548-3456 for additional product information

Compliance Recognition: UL



Underwriters Laboratories, Inc.

Substrates	Minimum Temperature		Maximum Temperature		(I=Indoor Only I/O= Indoor & Outdoor)	Additional Conditions
	° F	° C	° F	° C		
1. Acrylic Paint	-40	-40	302	150	I/O	C,F1,G,K,O
2. Alkyd Paint	-40	-40	302	150	I/O	C,F1,G,K,O
3. Aluminum	-40	-40	302	150	I/O	C,F1,G,K,O
4. Epoxy Paint	-40	-40	302	150	I/O	C,F1,G,K,O
5. Galvanized Steel	-40	-40	302	150	I/O	C,F1,G,K,O
6. Polyester Paint	-9.4	-23	302	150	I/O	C,F1,G,K,O
7. Polyester Powder Paint	-9.4	-23	302	150	I/O	C,F1,G,K,O
8. Polyurethane Powder Paint	-9.4	-23	302	150	I/O	C,F1,G,K,O
9. Porcelain	-40	-40	302	150	I/O	C,F1,G,K,O
10. Stainless Steel	-40	-40	302	150	I/O	C,F1,G,K,O
11. Acrylic Powder Paint	-40	-40	257	125	I/O	C,F1,G,K,O
12. Epoxy Powder Paint	-40	-40	257	125	I/O	C,F1,G,K,O
13. Melamine	-40	-40	212	100	I/O	C,F1,G,K,O
14. Nylon	-40	-40	212	100	I/O	C,F1,G,K,O
15. Phenolic	-40	-40	212	100	I/O	C,F1,G,K,O
16. Polycarbonate	-40	-40	212	100	I/O	C,F1,G,K,O
17. Unsat Thermoset Polyester	-40	-40	212	100	I/O	C,F1,G,K,O
18. ABS Plastic	-40	-40	176	80	I/O	C,F1,G,K,O
19. Epoxy	-40	-40	176	80	I/O	C,F1,G,K,O
20. Polyphenylene Oxide	-40	-40	176	80	I/O	C,F1,G,K,O
21. Polypropylene	-9.4	-23	176	80	I/O	C,F1,G,K,O
22. Polystyrene	-40	-40	176	80	I/O	C,F1,G,K,O
23. Polyvinyl Chloride	-40	-40	176	80	I/O	C,F1,G,K,O
24. Acrylic	-40	-40	140	60	I/O	C,F1,G,K,O
25. Polyethylene	-9.4	-23	140	60	I/O	C,F1,G,K,O

Note: MACtac tested all 25 surface categories at UL with occasional exposure to Cooking Oil (room temp), Fuel Oil No. 1, Gasoline splashing, Kerosene and Lubricating Oil.

C – Occasional exposure to Cooking Oil (room temp).

F1 – Occasional exposure to Fuel Oil No. 1.

G – Occasional exposure to Gasoline splashing.

K – Occasional exposure to Kerosene.

O – Occasional exposure to Lubricating Oil.

CALL 1-800-548-3456 for additional product information

Performance Data

Typical peel value of 2 mil PET face applied to tested surface in lbs./in.

Surface	Initial	72 hours @ Room Temp.	72 hours @ 120° F.	24 hours @ 90° F. / 90% RH
Stainless Steel	3.0	5.9	6.8	1.5
Aluminum	3.2	5.8	6.3	3.7
Polypropylene	1.9	3.0	5.5	4.1
HDPE	2.5	5.7	4.1	4.1
LDPE	1.0	2.2	1.8	3.8
ABS	4.5	5.3	5.3	4.3
Polycarbonate	5.4	5.5	2.9	3.3

Chemical Resistance

Typical peel value of 2 mil PET face applied to stainless steel and immersed in test chemicals for four hours, in lbs./in.

Chemical	Adhesion
Isopropyl Alcohol	4.6
Oil	6.4
Oil @ 250° F.	6.4
Water	4.3
Acid – pH 4	5.4
Base – pH 11	5.0
409® Cleaner	5.4
Toluene	2.5
Acetone	2.8
Brake Fluid	6.4
Gasoline	2.8
Diesel Fuel	5.8
Mineral Spirits	5.3
Hydraulic Fluid	6.3
Tide® Detergent	5.7
Kerosene	5.3
Heptane	4.9

This product complies with CONEG regulations.

All MACTac Roll Label products meet the requirements of the Clean Air Act of 1990.

IMPORTANT NOTICE: The information given and the recommendations made herein are based on our research and are believed to be accurate, but no guarantee of their accuracy or completeness is made. In every case, user shall determine before using any product in full scale production, or in any way, whether such product is suitable for user's intended use for their particular purpose under their own operating conditions. User assumes all risk and liability whatsoever in connection with their use of any product. The products discussed herein are sold without any warranty as to merchantability or fitness for a particular purpose, or any other warranty, express or implied. No representative of ours has any authority to waive or change the foregoing provisions, and no statement or recommendation not contained herein shall have any force of effect unless in an agreement signed by the officers of seller and manufacturer. Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute a permission, inducement or recommendation to practice any invention covered by any patent without authority from the owner of the patent. The following is made in lieu of all warranties, express or implied: Seller's and manufacturer's only obligation shall be to replace or credit such quantity of the product proved to be defective at its discretion.

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