PERFORMANCE GUIDE

Represents Typical Values Only

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FAD6914

Revised: 03/2022 CNS

2 mil Clear PET / MP690 / 3.2 mil SCK

Description		Applications and End Uses
Product	FAD6914 - 2 mil gloss top-coated, clear polyester with a durable and aggressive permanent acrylic adhesive and a 3.2 SCK liner. *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 PGJI2.MH26726 Printing Materials.* *CUL (CSA C22.2 No. 0.15) recognized under UL file No. PGGU8.MH12627 Marking and Labeling System Materials Certified for Canada and PGJI8.MH26726 Printing Materials.*	Designed for use in nameplate, durable equipment, and drum label applications. Excellent flexo and thermal transfer printability with most resin and wax/resin ribbons.
Face	2 mil clear polyester, topcoated for superior printability via flexo and thermal transfer. Features high strength, tear resistance, dimensional stability, and temperature resistance. **Physical Properties Without Adhesive** Caliper, inches — 0.002 (2 mils) — ASTM D-2103 Tensile, lbs./in. — 60 MD 70 CD — TAPPI-494	
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. **Physical Properties of Adhesive** Thickness, inches — 0.001 +/- 10% Peel Adhesion, lbs./in. — 2.9 — PSTC-101A (30mins applied) *Temperature Ranges* Minimum Application — +50°F (10°C) — CTM #45 Curwood Polyester Film Dry Surface Service Ranges — -40°F to +302°F (-40°C to +150°C) Loop Tack – Stainless Steel, lbs./in. — 2.9 — PSTC-16	
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. Caliper, inches — 0.0032+/- 10% — TAPPI T-411 Basis Weight, lbs. (24" x 36"/500 sheets) — 50 +/- 10% — TAPPI T-410	
Shelf Life	Product retains its performance and properties for two years from date of manufacture when stored at 72° F and 50% relative humidity.	

This product complies with CONEG regulations.
All MACtac Roll Label products meet the requirements of the Clean Air Act of 1990.

**** NOTE: Thermal transfer printing quality and bar code scannability are dependent upon the interworking of several elements; the ribbon, the printhead and the facestock. Please test all applications. Consult Mactac's Technical Marketing Department for guidelines regarding printer and ribbon compatibility.***

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 @ 120º F.	24 hours @ 90º 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

Compliance Recognition: UL

Underwriters Laboratories, Inc.

Substrates	Minimum Temperature		Maximum Temperature		(I=Indoor Only I/O= Indoor & Outdoor)	Additional Conditions
	º F	º C	º F	º 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

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.

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

c UL US **Underwriters Laboratories, Inc.**

Substrates	Maximum Temperature ° F	° C	(I=Indoor Only I/O= Indoor & Outdoor)	Additional Conditions
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 PGJI2 / cUL PGJI8

UL Recognized Thermal Transfer Ribbon
DNP (Previously Sony Chemicals) TR6070 Resin Ribbon, DNP R510HF Resin Ribbon, Datamax SDR-5 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)

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