# PERFORMANCE GUIDE

MSPET

Revised: 6/12

# 2 mil Matte Silver Metalized PET / MP690 / 3.2 mil SCK

# **Description**

**Product** 

MSPET - 2 mil matte top-coated, silver metalized 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 MH12627.

### **Applications and End Uses**

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 matte silver metalized 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, Ibs./in.
 40 MD 60 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. Complies with FDA 21 CFR 175.105

#### Physical Properties of Adhesive

Loop Tack -

Thickness, inches 0.001 +/- 10%

Peel Adhesion, Ibs./in. 3.8 CTM-8 (30 min. applied)
Reference: PSTC-101A

Temperature Ranges

Stainless Steel, lbs./in.

Minimum Application +50°F (10°C) CTM #45 Curwood Polyester Film Dry

Service Ranges  $-40^{\circ}\text{F to } +302^{\circ}\text{F } (-40^{\circ}\text{C to } +150^{\circ}\text{C})$ 

Surface PSTC11

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

<sup>\*</sup> 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. Contact your UL label supplier 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 @ 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 <sup>®</sup> 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.

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	Minimum Temperature		Maximum Temperature			
Substrates	° F	° C	°F	°C	(I=Indoor Only I/O= Indoor & Outdoor)	Additional Conditions
1. Epoxy Paint	-40	-40	302	150	I/O	C,F1,G,K,O
Polyester Powder Paint	-40	-40	302	150	I/O	C,G,K,O
3. Polypropylene	-9.4	-23	176	80	I/O	C,G,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.

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