



Nameplates	TEL	FAX
Labels	972	972
Overlays	475	412
Insulators	0770	0791
Prototypes		

Marking Systems, Inc.
4720 Industrial
Rowlett, TX 75088

www.markingsystems.com

To: Chrysalis Development

Kind Attention: Jim Goshorn

May 19, 2003

Jim,

Please find attached UL certification information for MSI 6000, we discussed over the phone.

Pages 2.1 thru 2.5 are the testing results from UL. You will also find attached Flexcon material information for the white polyester (pages 4.1 & 4.2) and the clear polyester over-laminate (pages 4.13 & 4.14)

Please contact me for further information.

Thank you,

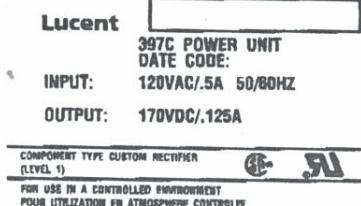
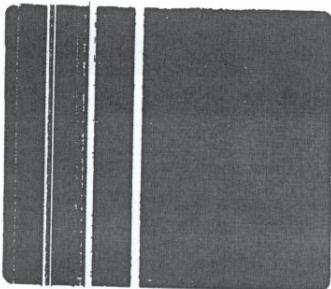
Vali Popa
Marking Systems Inc.
972-475-0770 Ext:106



2.1

U.L. & CSA Certified Labels:

Marking Systems MSI 6000, 7400, 7500



MARKING SYSTEMS
This device can be indentified in produce
lines or at the work station controlled
table in order to aid and understand
the application, maintenance and
service procedures.

BL EDSOE
S1' BOOT



Material: (Flexcon Polyester)

Base Material	(MSI6000):	PM - 200 - W L - 23
	(MSI7400):	PM - 100 - C L - 46
	(MSI7500):	MM - 100 - S L - 23
Laminate	(MSI6000):	.001 - .002 clear gloss, matte polyester or .003 velvet polycarbonate
	(MSI7400):	.001 - .002 clear gloss, matte polyester or .003 velvet polycarbonate
	(MSI7500):	.001 - .002 clear gloss, matte polyester or .003 velvet polycarbonate
Adhesive	(MSI6000):	.001 Flexcon L - 23
	(MSI7400):	.001 Flexcon L - 23
	(MSI7500):	.001 Flexcon L - 23

MARKING SYSTEMS, INC. • 4720 INDUSTRIAL • ROWLETT, TX 75088

PHONE (972) 475-0770 • FAX (972) 412-0791

E-MAIL msi1@aimail.net • www.markingsystems.com

MSI6000

2.2
File: MH11467 Vol. 1 Sec. 1 *Page 1 Issued: 11-20-79
and Report Revised: 01-07-94

D E S C R I P T I O N

PRODUCT COVERED:

UNR and CNR pressure-sensitive marking and labeling systems, "MSI 6000, 7400 and 7500."

GENERAL CHARACTER AND USE:

The products consist of overlaminated printed white, clear or silver metalized polyester film-coated on one side with a pressure-sensitive adhesive protected by a release liner.

This product is used as printed labels or markers bearing information, instruction or identification.

ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

UNR - Indicates investigations of UL 969.

CNR - Indicates investigations to Canadian National Standard CAN/CSA-C22.2 No. 0.15-M90.

Use - For use only for labels or markers which are not required to be nontransferable when removal is attempted and on products where the acceptability of the combination is determined by Underwriters Laboratories Inc.

Conditions of Acceptability - See Table I for UNR and Table II for CNR.

MARKING:

UNR - Company name and label designation on packages of labels.

CNR - Company name, label designation and UL Recognized Component Mark for Canada on packages of labels.

KH/ID/scl

File: MH11467

*Page T3-1 of 2

Issued: 11-20-79

New: 01-07-94

TEST RECORD NO. 3

GENERAL:

The label stocks employed in the construction of MSI 6000, 7400, and 7500 were previously investigated by CSA in accordance with CAN/CSA-C22.2. Therefore only evaluation of the printing was considered necessary.

The UL 969 test methods indicated on the preceding pages, for evaluation of the printing, exceed the Canadian requirements for similar exposures. Therefore, only the following exposures in accordance with CAN/CSA-C22.2 were considered necessary.

SAMPLES:

The manufacturer furnished printed samples of MSI 6000, 7400, and 7500 for testing.

MSI 6000 - "FLEXMARK PM 200 W C-23
MSI 7400 - "FLEXMARK PM 100 C C-46
MSI 7500 - "FLEXMARK MM 100 S C-23

TABLE II

(For CAN/CSA-C22.2 No. 0.15-M90)

For Indoor Normal Use On Surfaces As Indicated

Surface	Maximum Temperature, °C	Maximum Temperature, °F
Metals	150	(302)
Plastics Group I	100	(212)
Plastics Group III	80	(176)
Plastics Group IV	80	(176)
Plastics Group V	80	(176)
Plastics Group VI	80	(176)
Plastics Group VIII	60	(140)

KH 'SD/scl

Plastics:

Clean, smooth, flat and curved surfaces of plastic in one or more of the following groups:

- Group 1 - Phenolics, Melamines
- Group 2 - Urea-Formaldehydes
- Group 3 - Polycarbonates, Acetals, Acrylics
- Group 4 - Polypropylenes
- Group 5 - Nylons
- Group 6 - Styrenes, Acrylonitrile-Butadiene-Styrene (ABS)
Styrene-Acrylonitrile-Copolymer
- Group 7 - Rigid and Plasticized Vinyls
- Group 8 - Cellulose Acetates, Cellulose Acetate Butyrates
- Group 9 - Phenylene Oxide
- Group 10 - Glass-Filled Polyester
- Group 11 - Polyphenylene Sulphide
- Group 12 - Polybutylene Terephthalate

MATERIAL SAFETY DATA SHEET

SECTION I - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : EASEFLEX PRO BLACK
 IDENTIFICATION NUMBER: AUB-90036 DATE PRINTED: 02/07/02
 PRODUCT USE/CLASS : FLEXOGRAPHIC PRINTING

SUPPLIER:
 Alden & Ott Flexo Inks, L.P.
 616 East Brook Drive
 Arlington Heights, IL 60005-46
 22

EMERGENCY TELEPHONE: 847-956-6830
 8:30 AM TO 5:00 PM / MON-FRI

PREPARER: Cm, PHONE: 847-956-6830, PREPARE DATE: 02/07/02

MANUFACTURER:
 Alden & Ott Flexo Inks, L.P.
 616 East Brook Drive
 Arlington Heights, IL 60005-46
 22

EMERGENCY TELEPHONE: 847-956-6830
 8:30 AM TO 5:00 PM / MON-FRI

SECTION II - COMPOSITION/ INFORMATION ON INGREDIENTS

CUTICAL NAME	CAS NUMBER	WT. PERCENT	OCCUPATIONAL EXPOSURE LIMITS			
			TELV-TWA	TELV-STEL	TEL-TWA	TEL-CEILING
WATER	7732-18-5	45.5	N.E.	N.E.	N.E.	NO
ETHANOL, 2 (DIMETHYLAMINO)	108-03-0	15.6	N.E.	N.E.	N.E.	NO
AMMONIA	7684-61-7	1.1	N.E.	N.E.	N.E.	NO

This product is supplied in compliance with TSCA reporting requirements. (See Section II for abbreviation legend)

SECTION III - PHYSICAL DATA

BOILING RANGE : 250 - 300 F
 ODOR : AMINE ODOR
 APPEARANCE : LIQUID
 SOLUBILITY IN H2O : IN WATER
 VOLATILE BY WEIGHT: 1.2%
 VOCs, lbs/gal : 0.21

VAPOR DENSITY : Is heavier than air
 SPECIFIC GRAVITY: 1.0562
 EVAPORATION RATE: Is slower than Ether
 VOLATILE BY VOL.: 1.3%
 VOCs, grams/ltr : 25

(See Section XI for abbreviation legend)

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 215 F

LOWER EXPLOSIVE LIMIT: N.A.
 UPPER EXPLOSIVE LIMIT: N.A.

(Continued on Page 2)



Product Data Sheet

4.1

FLEXmark® PM-200-W TC-249 L-23 SPEC 50 K-8

GENERAL DESCRIPTION:

This is a topcoated white polyester film coated with a permanent pressure sensitive acrylic adhesive and backed with a semi bleached kraft release liner.

APPLICATION:

FLEXcon designed this product for applications requiring good dimensional stability, durability, and high temperature resistance. Topcoat TC-249 accepts a variety of conventional solvent base and U. V. inks.

UL RECOGNITION:

This product is UL recognized for indoor/outdoor use with occasional exposure to lubricating oil and water. For further information, please reference FLEXcon's UL file No MH10170 (N) or contact your FLEXcon Representative. The limits of the recognition are defined below.

SURFACE	TEMPERATURE LIMITS	RECOGNITION
Aluminum	-40°F to 302°F (-40°C to 150°C)	Indoor/Outdoor use
Galvanized steel	-40°F to 302°F (-40°C to 150°C)	Indoor/Outdoor use
Acrylic paint	-40°F to 302°F (-40°C to 150°C)	Indoor/Outdoor use
Alkyd enamel	-40°F to 302°F (-40°C to 150°C)	Indoor/Outdoor use
Stainless steel	-20°F to 302°F (-29°C to 150°C)	Indoor/Outdoor use
Polyester paint	-20°F to 302°F (-29°C to 150°C)	Indoor/Outdoor use
Porcelain	-20°F to 302°F (-29°C to 150°C)	Indoor/Outdoor use
Nylon	-20°F to 212°F (-29°C to 100°C)	Indoor/Outdoor use
Halocline plastic	-20°F to 212°F (-29°C to 100°C)	Indoor/Outdoor use
Polyimide	-20°F to 212°F (-29°C to 100°C)	Indoor/Outdoor use
Phenolic plastic	-20°F to 212°F (-29°C to 100°C)	Indoor/Outdoor use
Polyxylene	-20°F to 176°F (-29°C to 80°C)	Indoor/Outdoor use
ABS plastic	-20°F to 176°F (-29°C to 80°C)	Indoor/Outdoor use
Unsaturated polyester plastic (thermoset)	-40°F to 176°F (-40°C to 80°C)	Indoor/Outdoor use
Polypropylene	176°F (80°C) No cold rating	Indoor use only

* FLEXmark is a registered trademark of the FLEXcon Company, Inc.
Product Performance and Suitability

3/25/96

All of the descriptive information and recommendations for the use of FLEXcon products should be used only as a guide. Furnishing such information and recommendations shall in no event constitute a warranty of any kind by FLEXcon. All purchasers of FLEXcon products shall independently determine the suitability of the material for the purpose for which it is purchased. No distributor, salesman, or representative of FLEXcon is authorized to give any warranty, guarantee, or to make any representation in addition to or contrary to the above.

FLEXCON COMPANY, INC., FLEXcon Industrial Park, Spencer, Massachusetts 01562 • Tel. (508) 885-3973

SECTION X - HMIS RATINGS

HMIS RATINGS - HEALTH: 1 FLAMMABILITY: 1 REACTIVITY: 0

SECTION XI - OTHER REGULATIONS

SARA SECTION 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

----- CHEMICAL NAME -----	CAS NUMBER	WT/WT %
AMMONIA	7684-41-7	1.1 %

TOXIC SUBSTANCES CONTROL ACT:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

----- CHEMICAL NAME -----	CAS NUMBER
No information is available.	

PREVIOUS MSDS REVISION DATE: 02/07/02

LEGEND: N.A. - Not Applicable, N.E. - Not Established,
N.D. - Not Determined

The information contained on this MSDS is been checked and should be accurate. However, it is the responsibility of the user to comply with all Federal, State, and Local laws and regulations.

<END OF MSDS>



Product Data Sheet

Classics Plus® 10074

PRODUCT PERFORMANCE INFORMATION

GENERAL DESCRIPTION:

This is a clear polyester film coated with a clear overlaminating pressure sensitive adhesive and bonded with a one side poly coated kraft release liner.

The adhesive in CP 10074 was specifically chosen for its premium overlaminating qualities. It is clearer and does not impart a haze or a yellow cast on the underlying graphics. Its cohesive strength makes it very resistant to flexing induced piping. Its cold flow properties will allow the adhesive to wet out beautifully, creating a truly premium look.

The clear polyester overlaminating film provides the high gloss appearance that many labels and product identification markings require. The film provides abrasion, humidity, solvent resistance, and protects the underlying graphics from harsh environmental conditions. CP10074 is not recommended for overlaminating dark solid colors and metallized films.

APPLICATION:

FLEXcon designed this product for overlaminating applications requiring glossy appearance and protection of printed graphics. Suitability of this product should be determined on an application specific basis.

UL RECOGNITION:

CP 10074 is recognized by UL as suitable for indoor and outdoor use where exposed to high humidity or occasional exposure to water or lubricating oil as defined below:

Note: UL tested this product by overlaminating it over the polyester and vinyl label stock printed with Black, Blue, Red and Yellow inks.

Surface	Temperature Limits	Recognition
Polyester label material	-40°F to 257°F (-40°C to 125°C)	Indoor/Outdoor Use
Vinyl label material	-40°F to 176°F (-40°C to 80°C)	Indoor/Outdoor Use

* Classics Plus is a registered trademark of the FLEXcon Company, Inc.

12/9/94

Product Performance and Suitability

All of the descriptive information and recommendations for the use of FLEXcon products should be used only as a guide. Furnishing such information and recommendations shall in no event constitute a warranty of any kind by FLEXcon. All purchasers of FLEXcon products shall be responsible for determining the suitability of the material for the purpose for which it is purchased. No distributor, salesman, or representative of FLEXcon is authorized to give any warranty, guarantee, or to make any representation in addition or contrary to the above.

Classics Plus® 10074

PRODUCT PERFORMANCE INFORMATION

Page 2

SYSTEM PERFORMANCE		VALUE	TEST METHOD	
PHYSICAL PROPERTIES				
Thickness: (mil (micron))	Film: Adhesive: Liner:	1.0 (25) 0.6-0.7 (15-18) 4.1 (104)	+/- 10% +/- 0.1 (3) +/- 10%	ASTM D 1593
Dimensional Stability (%)		No shrinkage observed		On Al panel at 160°F (70°C) for 24 hrs
ADHESIVE PERFORMANCE				
Adhesion From		Average oz/in (N/m)	Expected Range oz/in (N/m)	
Stainless Steel		88 (968)	75-100 (825-1100)	PSTC 1 (Modified for 72 hrs dwell time)
Acrylic Plastic		86 (946)	75-100 (825-1100)	
Polycarbonate		28 (308)	20-45 (220-495)	
Expected Shear (hrs)	2			PSTC 7 (1 hr dwell, 1 sq in, 4 lb load)
Tank (gm/sq cm)	620	550-800		ASTM D 2979-71
CHEMICAL RESISTANCE				
Windex		Excellent		Five cycle at RT
Gasoline		Good		Ten min immersion, 30 min recovery on
Toluene		Fair-Good		SS panel
Water		Excellent		
EXPECTED EXTERIOR LIFE		Two years		
SERVICE TEMPERATURE RANGE		-40°F to 257°F (-40°C to 125°C)		
MINIMUM APPLICATION TEMPERATURE		50°F (10°C)		
STORAGE STABILITY		Two years stored at 70°F (21°C) and 50% RH		