



Technical Data Sheet

3M™ Outdoor UL Recognized Clear Polyester Durable Label Material OFM3102



Additional Info



Regulatory
Info/SDS

Product Description

3M™ Outdoor UL Recognized Clear Polyester Durable Label Materials are durable, high performance materials that offer thermal stability and moisture resistance. These polyester labels utilize 3M™ Adhesive P1400, which is a high performance tackified acrylic designed for use in demanding environments.

Product Features

- UL recognized for indoor/outdoor use UL files MH11410 and MH16411.
- Adhesive offers good UV resistance and excellent adhesion to a wide variety of substrates, including polyolefins.
- Liner for 3M™ Outdoor UL Recognized Clear Polyester Durable Label Material OFM3102 is designed for high-speed die cutting and matrix stripping. This liner has been remoisturized after silicone coating to restabilize the sheet and reduce side curl, an excellent choice for perforation and fanfold applications.

Technical Information Note

The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Typical Physical Properties

Attribute Name	Value
Adhesive Type	P1400 Perm. 18
Facestock	Clear Polyester TC
Adhesive Coat Weight	1.75 g/100 in ² ± 10%

Attribute Name	Value
Facestock Thickness	0.051 mm (2 mil)
Liner	50# SC Remoist semi-bleached super calendered kraft sheet
Liner Thickness	0.079 mm (3.1 mil)

Construction Tested

Adhesion properties determined per TLMI Method using 1.0 mil polyester with 1.0 mil of adhesive on a polished stainless steel panel.

Typical Performance Characteristics

Test Method: TLMI

Attribute Name	Temperature	Substrate	Value
180° Peel Adhesion	23 °C (73 °F)	Stainless Steel	3.85 N/cm (35.2 oz/in) ¹
Liner Release	23 °C (73 °F)		3 – 9.8 g/cm (15 – 50 g/2 in) ²
Shear Adhesion			4 h ³
Loop Tack			3.16 N/cm (28.8 oz/in) ¹

¹ 300 mm/min (12 in/min)

² 180° removal, 300 in/min

³ 0.25 in² x 500g

Attribute Name	Value
Application Temperature	5 — 49 °C (40 — 120 °F)
Long Term Temperature Resistance	125 °C (257 °F) ¹
Minimum Long Term Temperature Resistance	-29 °C (-20 °F) ¹

¹ Long Term (day, weeks)

Attribute Name	Value
Note	Calipers are nominal values

Printing

Gloss topcoat is designed to be printable with a variety of film inks and thermal transfer ribbons. The following inks and thermal transfer ribbons have been evaluated and found to give excellent adhesion when tested with 3M™ Tape 610 and 3M™ Tape 810. However, press conditions vary and proper evaluation using your specific conditions is critical and highly recommended for successful ink and ribbon adhesion.

Supplier UV Inks Ink Series Printing Process
 XSYS Print Solutions UNV80071 Letterpress
 USC50022 Screen
 USC10031 Screen
 Environmental Inks Ultra Kote 1800 OPV Flexo
 Nazdar PSST-3952 Screen
 Norcote 02-022, 80049, 02304, 021019 Screen

Water Based
 XSYS Print Solutions HMF80071 Flexo
 HMF90100 Flexo
 MHF30004 Flexo
 Water Ink Technologies WFLO 42976 Flexo
 Environmental Inks Aqua Polyscreen Plus Flexo
 Aqua Poly Cup Flexo
 Wykoff Inks SCF 6551 Flexo

Solvent Based
 Siegwirk Ink FCTB65L2 Flexo
 FCTD65L4 Flexo
 FCTE65L3 Flexo
 FCTH65L5 Gravure
 Nazdar GV124 Screen

Thermal Transfer Ribbon Supplier Ribbon Series Ribbon Type
 Armor AXR7 + Resin
 DNP W137-C Wax
 M-250 Wax/Resin
 R510-W Resin
 iimak SP330, DC400 Resin
 Prime Mark, PM350 Wax/Resin
 Ricoh B110A Wax/Resin
 BC110C Resin
 Sony 3022, 4085 Plus Wax
 4070 Resin (UV+)
 4075 Resin

Handling/Application Information

Application Examples

- Nameplates and product ID labels.
- Durable goods, power tools, equipment and machinery, lawn and garden.

Industry Specifications

UL recognized for indoor/outdoor use (Files MH11410 and MH16411)

Storage and Shelf Life

Store under normal conditions of 16° to 27°C (60° to 80°F) and 40 to 60% relative humidity in a sealed plastic bag, out of direct sunlight. For best performance, use this product within 24 months from date of manufacture.

Information

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ISO Statement

This product was manufactured under a 3M quality system registered to ISO 9001 standards.

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