



Technical Data Sheet

3M™ Durable Label Material 7819



[Product Details](#)



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Product Description

3M™ Durable Label Material 7819 is a polyester label stock that offers premium durability and moisture resistance. This polyester label stock utilizes 3M™ Adhesive P1400 which is a high performance tackified acrylic designed for use in demanding environments, including outdoor applications.

Product Features

- Facestock is topcoated for thermal transfer printing. Resin ribbons are recommended for optimum durability. The topcoat also provides improved ink anchorage for traditional forms of press printing.
- UL recognized (File MH16411) and CSA accepted (File 99316). See the UL and CSA listings for details.
- Offers a high performance tackified acrylic adhesive designed for use in demanding environments.
- Designed for high-speed die cutting and matrix stripping. Not recommended for sheet on press 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.
Facestock	Platinum Polyester Gloss TC

Attribute Name	Value
Adhesive Thickness	0.023 mm (0.9 mil)
Facestock Thickness	0.05 mm (2 mil)
Liner	50# SC
Liner Thickness	0.078 mm (3.1 mil)

Attribute Name	Value
Convertability	3M™ Outdoor Acrylic Adhesive P1400 is specifically designed to be compatible with a variety of print methods and end use applications. Adhesive processing issues are not anticipated when proper roll tensions, handling and storage conditions are used. Please refer to the die cutting/converting section of this data page or the “Guide to Converting and Handling Label Products” technical bulletin for additional information.

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	3.8 N/cm (35 oz/in) ¹
Liner Release	23 °C (73 °F)		30 — 100 g/2 in ²
Shear Adhesion			4 h ³
Loop Tack			3.16 N/cm (28.8 oz/in) ¹

¹ 304 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	150 °C (302 °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

Facestock is designed to be printed via thermal transfer printing but it is printable by all standard roll processing methods including flexography, hot stamp, letterpress, and screen printing. The converter should verify that their ink systems are compatible with the topcoating on the polyester film by testing beforehand. Refer to UL file for tested inks.

Converting

Rotary die cutting is recommended. Fanfolding of labels is not recommended. Small labels should be evaluated carefully. Winding tensions should be kept at a minimum to help prevent the adhesive from oozing.

Handling/Application Information

Application Examples

- Nameplates and product ID labels.
- Rating plates.
- Property identification and asset labeling.
- Warning, instruction, and service labels for durable goods, equipment/machinery and lawn and garden.

Application Techniques

For maximum bond strength, the surface should be clean and dry. Typical cleaning solvents are heptane and isopropyl alcohol.*

For best bonding conditions, application surface should be at room temperature or higher. Low temperature surfaces, below 50°F (10°C), can cause the adhesive to become so firm that it will not develop maximum contact with the substrate. Higher initial bonds can be achieved through increased rubdown pressure.

*When using solvents, read and follow the manufacturer's precautions and directions for use.

Industry Specifications

UL Recognized (File 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 the original packaging, out of direct sunlight. For best performance, use this product within 24 months from date of manufacture.

Available Sizes

Attribute Name	Value
Packaging	Finished labels should be stored in plastic bags.

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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