



Technical Data Sheet

3M™ Versatile Print Label Material 7871V



[Product Details](#)

Product Description

3M™ Versatile Print Label Material 7871V is a gloss polyester label material that offers durability and moisture resistance. The topcoat is formulated to print with multiple technologies, including UV inkjet, water flexo, UV flexo, thermal transfer, and screen printing. This label product utilizes 3M™ High Performance Acrylic Adhesive 350, it offers chemical resistance and holding strength even at high temperatures.

Product Features

- Adhesive can permanently bond to high surface energy (HSE) and low surface energy (LSE) plastics, textured and contoured surfaces, powder coatings, and slightly oily metals.
- Thick adhesive caliper provides for stronger bond on textured surfaces.
- Facestock is topcoated for high quality and durable printing with multiple print technologies including UV inkjet, water and UV flexo, thermal transfer, and screen.
- UL Recognized file MH16411, CSA Group Certified file 99316

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	350 Acrylic
Facestock	White Polyester Versatile TC
Adhesive Coat Weight	2.70 — 3.24 g/100 in ²

Attribute Name	Value
Adhesive Thickness	0.046 mm (1.8 mil)
Facestock Thickness	0.051 mm (2 mil)
Liner	55# Densified Kraft
Liner Thickness	0.081 mm (3.2 mil)

Attribute Name	Value
Convertability	In order to capture the superior performance properties of 3M™ High Holding Acrylic Adhesive 350, thicker calipers are utilized for LSE or textured substrates. Its higher caliper, while desirable for the end use applications, may require extra care during processing. 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.

Typical Performance Characteristics

180° Peel Adhesion

Temperature: 23 °C (73 °F)

Test Method: ASTM D3330

Dwell Time	Substrate	Value
20 min	Polycarbonate (PC)	8.5 N/cm (77 oz/in) ¹
20 min	Polypropylene (PP)	7.4 N/cm (68 oz/in) ¹
20 min	Stainless Steel	8.4 N/cm (77 oz/in) ¹
72 h	Polycarbonate (PC)	9.2 N/cm (83 oz/in) ¹
72 h	Polypropylene (PP)	8 N/cm (73 oz/in) ¹
72 h	Stainless Steel	9.6 N/cm (87 oz/in) ¹

¹ 304 mm/min (12 in/min)

Attribute Name	Value
Minimum Application Temperature	10 °C (50 °F)
Long Term Temperature Resistance	149 °C (300 °F) ¹
Minimum Long Term Temperature Resistance	-40 °C (-40 °F) ¹

¹ Long Term (day, weeks)

Attribute Name	Value
Note	Calipers are nominal values

Typical Environmental Performance

180° Peel Adhesion

Temperature: 37 °C (100 °F)

Dwell Time: 72 h

Test Method: ASTM D3330

Environmental Condition: 100%RH

Substrate	Value
Polycarbonate (PC)	6.6 N/cm (60 oz/in) ¹
Polypropylene (PP)	7.7 N/cm (70 oz/in) ¹
Stainless Steel	7.0 N/cm (63 oz/in) ¹

¹ 304 mm/min (12 in/min)

Substrate: Stainless Steel

Temperature: 65 °C (150 °F)

Dwell Time: 96 h

Environmental Condition: 80%RH

Attribute Name	Test Method	Value
Accelerated Aging	ASTM D3611	11 N/cm (100 oz/in) ¹

¹ 304 mm/min (12 in/min)

Typical Environmental Characteristics

Humidity Resistance

24 hours at 100°F (38°C) and 100% relative humidity: no significant change in appearance or adhesion

Temperature Resistance

When applied to stainless steel. Other substrates should be tested per application.
300°F (149°C) for 24 hours: no significant visual change

-40°F (-40°C) for 10 days: no significant visual change

Printing

Facestock is topcoated for improved ink receptivity and is designed for UV Inkjet, water flexo, UV flexo, screen, and thermal transfer printing.

UL approved inks (evaluated in black, blue, red, and yellow)

Actega Actexact: -40°-150°C. Red and Yellow Indoor Only.

Actega Optafilm: -40°-150°C. Red and Yellow Indoor Only.

Flint Hydrofilm Ace: -40°-150°C. Red Indoor Only.

Flint Flexocure Force: -40°-150°C. Red and Yellow Indoor Only.

Domino N610i: -40°-150°C. All Colors Indoor and Outdoor.

Durst Tau RSC: -40°-150°C. All Colors Indoor and Outdoor.

EFI Jetrion 4830: -40°-150°C. All Colors Indoor and Outdoor.

INX Prodigy: -40°-150°C. All Colors Indoor and Outdoor.

Mark Andy Digital Series: -40°-150°C. All Colors Indoor and Outdoor.

Stork DSI Digital UV: -40°-150°C. Yellow Indoor Only.

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

- Barcode labels and rating plates
- Property identification and asset labeling
- Warning, instruction, and service labels for durable goods
- Nameplates and durable goods

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 PGJ12.MH16411, Printing Materials - Component, ANSI/UL 969

CSA Group Certified, File 99316, Class 7922, Adhesive-Type Labels - Label Stock, CSA-C22.2 No. 0.15-15 Update No. 1

CSA Group Certified, File 99316, Class 7924, Adhesive-Type Labels - Electronic Printing Technologies, CSA-C22.2 No. 0.15-15 Update No. 1

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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