



Technical Data Sheet

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3M[™] Screen Printable Sheet Vinyl Label Material 7901



Product Details

Product Description

3M[™] Screen Printable Sheet Vinyl Label Material 7901 is a durable, high performance material that offers excellent conformability, good durability and moisture resistance. This label material utilizes 3M[™] Adhesive 500, a high stability acrylic adhesive, which provides excellent adhesive to a variety of surfaces including stainless steel, polycarbonate and polypropylene. This adhesive features one-piece removal up to one year after application and is designed for indoor/outdoor use.

Product Features

- Liner provides easy sheet processing and is designed for layflat. The backside of the liner is not printable.
- UL recognized (File MH11410). See the UL listing for details.

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	500 Acrylic
Facestock	Soft White Vinyl NTC
Adhesive Coat Weight	1.40 — 1.83 g/100 in ²

Attribute Name	Value
Adhesive Thickness	0.025 mm (1 mil)
Facestock Thickness	0.086 mm (3.4 mil)
Liner	90# Polyctd. bleached kraft sheet polyethylene coated on
	two sides
Liner Thickness	0.17 mm (6.7 mil)

Attribute Name	Value
Convertability	3M [™] High Stability Acrylic Adhesive 500 for outdoor
	applications which require clean removability. When
	converting labels for thermal transfer applications, care
	should be taken with regard to proper roll tensions,
	handling and storage conditions. 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

Temperature: 23 °C (73 °F)

Attribute Name	Test Method	Value
Liner Release	TLMI	1 - 13.7 1

¹ 180° removal, 300 in/min

Attribute Name	Value
Minimum Application Temperature	10 °C (50 °F)
Long Term Temperature Resistance	60 °C (140 °F) ¹
Minimum Long Term Temperature Resistance	-40 °C (-40 °F) 1

¹ Long Term (day, weeks)

180° Peel Adhesion

Temperature: 23 °C (73 °F) Dwell Time: 72 h Test Method: ASTM D3330

Substrate	Value
Polycarbonate (PC)	7.4 N/cm (68 oz/in) ¹
Polypropylene (PP)	2.8 N/cm (26 oz/in) ¹
Stainless Steel	5.6 N/cm (52 oz/in) ¹

¹ 300 mm/min (12 in/min)

Attribute Name	Value
Note	Calipers are nominal values

Typical Environmental Characteristics

Humidity Resistance

24 hours at 90°F (32°C) and 90% relative humidity: No significant change in appearance or adhesion.

Temperature Resistance

300°F (149°C) for 24 hours: Melted. 250°F (121°C) for 24 hours: Very slight yellowing. 175°F (79°C) for 24 hours: No significant visual change. -40°F (-40°C) for 10 days: No significant visual change.

Printing

Label material is designed for screen printing. The converter should verify that their ink systems are compatible with the vinyl film by testing beforehand.

Converting

Die cut with steel rule or flatbed dies. The 90# lay-flat liner also allows kiss cutting and back splitting. The converter can cut through the vinyl facestock without cutting through the liner. Sheet label materials are not recommended for rotary die cutting and stripping operations.

Handling/Application Information

Application Examples

- · Labeling of small or irregular shape containers.
- Labels requiring long term bond and piece removal.
- Barcode labels and rating plates.
 Property identification and asset labeling.
- Warning, instruction, and service labels for durable goods.
- Nameplates for 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 MH11410)

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.

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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