



Technical Data Sheet

3M™ Screen Printable Sheet Vinyl Label Material 7904

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Regulatory Info/SDS

Product Description

 $3M^{\text{TM}}$ Screen Printable Sheet Vinyl Label Material 7904 is a durable, high performance material that offers excellent conformability, good durability and moisture resistance. This label material utilizes $3M^{\text{TM}}$ Adhesive 350, which is designed to permanently bond to high and low surface energy plastics, textured and contoured surfaces, powder coatings, and slightly oily metals.

Product Features

- Facestock is designed to resist lifting and buckling on a wide range of containers and conditions.
 Liner provides easy sheet processing and is designed for layflat. The backside of the liner is not printable.

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	Soft White Vinyl NTC
Adhesive Coat Weight	2.70 — 3.24 g/100 in ²

Attribute Name	Value
Adhesive Thickness	0.046 mm (1.8 mil)
Facestock Thickness	0.086 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	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

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

Long Term (day, weeks)

180° Peel Adhesion

Temperature: 23 °C (73 °F)

Dwell Time: 72 h

Test Method: ASTM D3330

Substrate	Value
Polycarbonate (PC)	10.3 N/cm (94 oz/in) ¹
Polypropylene (PP)	8.3 N/cm (76 oz/in) ¹
Stainless Steel	9.6 N/cm (88 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 100°F (38°C) and 100% relative humidity: No significant change in appearance or adhesion.

Temperature Resistance

250°F (121°C) for 24 hours: 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

Flatbed die cutting is recommended. Fanfolding of labels is not recommended. Small labels should be evaluated carefully.

Handling/Application Information

Application Examples

- · Barcode labels.
- · Property identification and asset labeling.
- Warning, instruction, and service labels for durable goods.
- Nameplates for durable goods.
- Labeling of small or irregular shape containers.
- Prime label for polyethylene and other plastic containers used to package consumer products such as nasal mists, shampoos, liquid soaps, lotions and selected food products.

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.

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

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