



Technical Data Sheet

3M™ Screen Printable Vinyl Performance Label Material 7051SA



Additional Info

Product Description

3M™ Screen Printable Vinyl Performance Label Materials are high performance materials that offer conformability and moisture resistance. These vinyl label stocks utilize 3M™ 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. With unique microchannels throughout the structured adhesive, air flows freely from between the adhesive and substrate. Hand applied labels go on smoothly and stay that way. Even when labels are used on injection-molded plastic parts, bubbles that form from plastic outgassing can be smoothed to regain a neat appearance for the graphic.

Product Features

- Most universal adhesive for label applications.
- Adhesive offers chemical resistance.
- Liner provides easy sheet processing and is designed for the ultimate in layflat. The backside of this liner is not printable.
- Meets EU RoHS Directive (e.g.) means that the product or part does not contain any of the following substances in excess of the following maximum concentration values in any homogeneous material, unless the substance is in an application that is exempt under RoHS: (a) 0.1% (by weight) for lead, mercury, hexavalent chromium polybrominated biphenyls or polybrominated diphenyl ethers; or (b) 0.01% (by weight) for cadmium. Unless otherwise stated by 3M in writing, this information represents 3M's knowledge and belief based on information provided by third party suppliers to 3M.

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
Facestock	Soft White EL Vinyl NTC
Adhesive Coat Weight	1.66 — 2.04 g/100 in ²

Attribute Name	Value
Adhesive Thickness	0.028 mm (1.1 mil)
Facestock Thickness	0.097 mm (3.8 mil)
Liner	90# Polycytd. bleached kraft sheet polyethylene coated on two sides
Liner Thickness	0.18 mm (7 mil)

Attribute Name	Value
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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)

Dwell Time: 20 min

Test Method: ASTM D3330

Substrate	Value
ABS	2.2 N/cm (21 oz/in) ¹
Polycarbonate (PC)	7.1 N/cm (66 oz/in) ¹
Polypropylene (PP)	6.1 N/cm (56 oz/in) ¹
Stainless Steel	6.7 N/cm (62 oz/in) ¹

¹ 300 mm/min (12 in/min)

Temperature: 23 °C (73 °F)

Attribute Name	Test Method	Value
Liner Release	TLMI	2 – 27.5 g/cm (10 – 140 g/2 in) ¹

¹ 180° removal, 300 in/min

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

¹ Short Term (minutes, hour)

Attribute Name	Value
Note	Calipers are nominal values

Printing

A non-topcoated print surface designed for use with solvent screen ink systems.

Solvent Screen Inks:

3M™ Screen Printing UV Ink Series 9800

Nazdar's 7700 and System 2

Sericol's Polyplast PY, GVYL, VYL, TMI and Techmark

Please be aware that our current production specifications for these materials are primarily qualified for printers who use flexographic, screen printing, and thermal transfer printing processes. 3M has neither done profile work with these products for printing by digital inkjet processes, nor engaged in any lot variation studies, nor taken any special measures in manufacturing or handling of these products with the intent of recommending these products for printing by digital inkjet methods.

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

- Nameplates and product ID labels.
- Rating plates.
- Property identification and asset labeling.
- Warning, instruction, and service labels.

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 40°F (5°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

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

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