



Screen Printable Vinyl Performance Label Products

7046 • 7053

Technical Data

January, 2008

Product Description 3M™ Screen Printable Vinyl Performance Label Products 7046 and 7053 are durable, high performance materials that offer excellent durability 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.

Construction	Product Number	Facestock	Adhesive	Liner
	3M Label Product 7046	.0032 in. Soft White Vinyl NTC	350 1.1 mils	90# Polycyd. 7.0 mil bleached kraft sheet polyethylene coated on two sides
	3M Label Product 7053	.004 in. Soft Clear Vinyl NTC	350 1.1 mils	90# Polycyd. 7.0 mil bleached kraft sheet polyethylene coated on two sides

(Calipers are nominal values)

- Features**
- Most universal adhesive for label applications.
 - 3M™ Screen Printable Vinyl Performance Label Product 7046 – UL recognized (File MH11410) See the UL listings for details.
 - Adhesive offers excellent chemical resistance and holding strength, even at high temperatures.
 - Liner provides easy sheet processing and is designed for the ultimate in layflat. The backside of this liner is not printable.

- Application Ideas**
- 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.

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Typical Physical Properties

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Adhesion properties determined per TLMI Method using 1.0 mil polyester with 1.0 mil of adhesive on a polished stainless steel panel.

Peel Adhesion to	Stainless Steel	5.0 lbs./in. (875 N/m)	TLMI Method, 180° Peel, 12"/min., 1" wide sample
	HDPE	3.0 lbs./in. (528 N/m)	TLMI Method, 180° Peel, 12"/min., 1" wide sample
	Polypropylene	4.0 lbs./in. (700 N/m)	TLMI Method, 180° Peel, 12"/min., 1" wide sample
	Polycarbonate	4.5 lbs./in. (788 N/m)	TLMI Method, 180° Peel, 12"/min., 1" wide sample
Shear	> 100 hours	TLMI Method, 0.25 in ² x 500g	
Adhesive Coat Weight	1.75 to 2.02 g/100 in ²	TM-2279	
Release Range	5 to 70 g/2 in.	TLMI Method, 180° removal, 300 in./min.	
Service Temperature	-20°F to 140°F (-29°C to 60°C)		
Minimum Application Temperature	50°F (10°C)		
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.		

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.

Printing

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

Solvent Screen Inks:

Nazdar's 7700 and System 2

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

Die Cutting / 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.

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Packaging	Finished labels should be stored in plastic bags.
Storage	Store at room temperature conditions of 72°F (22°C) and 50% relative humidity.
Shelf Life	If stored under proper conditions, product retains its performance and properties for two years from date of manufacture.
Product Use	All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. However, many factors beyond 3M's control can affect the use and performance of a 3M product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method of application.
Warranty and Limited Remedy	Unless stated otherwise in 3M's product literature, packaging inserts or product packaging for individual products, 3M warrants that each 3M product meets the applicable specifications at the time 3M ships the product. Individual products may have additional or different warranties as stated on product literature, package inserts or product packages. 3M MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's application. If the 3M product is defective within the warranty period, your exclusive remedy and 3M's and seller's sole obligation will be, at 3M's option, to replace the product or refund the purchase price.
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This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001:2000 standards.



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