



Screen Printable Polyester Performance Label Products

7025 • 7027 • 7029 • 7032 • 7034 • 7041

Technical Data

January, 2008

Product Description

3M™ Screen Printable Polyester Performance Label Products are durable, high performance materials that offer good thermal stability and moisture resistance. These topcoated polyester label stocks utilize 3M™ Adhesive P1400 which is a high performance tackified acrylic designed for use in demanding environments, including outdoor applications.

Construction

Product Number	Facestock	Adhesive	Liner
3M™ Screen Printable Polyester Performance Label Product 7025	.002 in. Bright Silver Polyester TC	P1400 Perm. 0.9 mils	90# Polyctd. 7.0 mil bleached kraft sheet polyethylene coated on two sides
3M™ Screen Printable Polyester Performance Label Product 7027	.002 in. Brushed Silver Polyester TC	P1400 Perm. 0.9 mils	90# Polyctd. 7.0 mil bleached kraft sheet polyethylene coated on two sides
3M™ Screen Printable Polyester Performance Label Product 7029	.002 in. Clear Polyester TC	P1400 Perm. 0.9 mils	90# Polyctd. 7.0 mil bleached kraft sheet polyethylene coated on two sides
3M™ Screen Printable Polyester Performance Label Product 7032	.002 in. Matte Silver Polyester TC	P1400 Perm. 0.9 mils	90# Polyctd. 7.0 mil bleached kraft sheet polyethylene coated on two sides
3M™ Screen Printable Polyester Performance Label Product 7034	.002 in. White Polyester TC	P1400 Perm. 0.9 mils	90# Polyctd. 7.0 mil bleached kraft sheet polyethylene coated on two sides
3M™ Screen Printable Polyester Performance Label Product 7041	.002 in. Matte Platinum Polyester TC	P1400 Perm. 0.9 mils	90# Polyctd. 7.0 mil bleached kraft sheet polyethylene coated on two sides

(Calipers are nominal values)

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Features

- Adhesive dry ingredients are listed by FDA as indirect food contact additives when used in food packaging with minimum opportunity for exposure. See 21 CFR 175.105.
- UL recognized (File MH16411). See the UL listings for details.
- Adhesive offers good UV resistance and excellent adhesion to a wide variety of substrates, including polyolefins.
- 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.

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	4.0 lbs./in. (704 N/m)	TLMI Method, 180° Peel, 12"/min., 1" wide sample
	HDPE	1.5 lbs./in. (262 N/m)	TLMI Method, 180° Peel, 12"/min., 1" wide sample
	Polypropylene	3.0 lbs./in. (528 N/m)	TLMI Method, 180° Peel, 12"/min., 1" wide sample
	Polycarbonate	3.5 lbs./in. (612 N/m)	TLMI Method, 180° Peel, 12"/min., 1" wide sample
Loop Tack		1.8 lbs./in. (316N/m)	TLMI Method, 12"/min., 1" wide sample
Shear		4 hours	TLMI Method, 0.25 in ² x 500g
Adhesive Coat Weight		1.67 to 1.89 g/100 in ²	TM-2279
Release Range		15 to 200 g/2 in.	TLMI Method, 180° removal, 300 in./min.
Service Temperature 3M™ Screen Printable Polyester Performance Label Products 7025, 7032, 7034, 7041		-20°F to 302°F (-29°C to 150°C)	
	3M™ Screen Printable Polyester Performance Label Product 7029	-20°F to 257°F (-29°C to 125°C)	
Application Temperature		40°F to 120°F (5°C to 49°C)	
Convertability		3M™ Outdoor Acrylic Adhesive P1400 is specifically designed to be compatible with a variety of print methods and end use applications. Adhesive processing issues are not anticipated when proper roll tensions, handling and storage conditions are used. Please refer to the die cutting/convert section of this data page or the "Guide to Converting and Handling Label Products" technical bulletin for additional information.	

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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

- High gloss general purpose topcoating is designed for use with UV, solvent and water-based screen inks. Topcoating will also accept flexo, ion deposition, off set, letter press, hot stamp, and thermal transfer printing. The converter should verify that their ink systems are compatible with the topcoating on the polyester film by testing beforehand. Ink systems recommended for testing are listed below.

UV Screen Inks:

ANI Printing Inks (formerly
Akzo Nobel) Uvoscreen II
Environmental UV III Screen Pro
Nazdar 1600
Sericol's Uviflex, 021 UV, UV and PEL

Water-based Screen Inks:

Nazdar 2700

Solvent Screen Inks:

Nazdar's 7700 and System 2
Sericol's Polyplast PY, GVYL,
VYL, TMI and Techmark

Water-based Flexo Inks:

ANI Printing Inks Hydro Film 4000 Series
Arcar Ultra Film Series 5 Inks

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 polyester facestock without cutting through the liner. Sheet label materials are not recommended for rotary die cutting and stripping operations.

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.

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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.

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ISO 9001:2000

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001:2000 standards.

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10% post-consumer

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