



# Screen Printable Polyester Performance Label Products

7026 • 7028 • 7028FL • 7031 • 7033 • 7035 • 7042 • 7911FL

Technical Data

April, 2012

## Product Description

3M™ Screen Printable Polyester Performance Label Products are durable, high performance materials that offer excellent thermal stability and moisture resistance. These topcoated polyester 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
<b>3M™ Screen Printable Polyester Performance Label Product 7026</b>	.002 in. Bright Silver Polyester TC	350 1.1 mil	90# Polycyd. 7.0 mil bleached kraft sheet polyethylene coated on two sides
<b>3M™ Screen Printable Polyester Performance Label Product 7028</b>	.002 in. Brushed Silver Polyester TC	350 1.1 mil	90# Polycyd. 7.0 mil bleached kraft sheet polyethylene coated on two sides
<b>3M™ Screen Printable Polyester Performance Label Product 7028FL</b>	.002 in. Brushed Silver Polyester TC	350 1.1 mil	.004 in. Clear Polyester Liner (102 microns)
<b>3M™ Screen Printable Polyester Performance Label Product 7031</b>	.002 in. Clear Polyester TC	350 1.1 mil	90# Polycyd. 7.0 mil bleached kraft sheet polyethylene coated on two sides
<b>3M™ Screen Printable Polyester Performance Label Product 7033</b>	.002 in. Matte Silver Polyester TC	350 1.1 mil	90# Polycyd. 7.0 mil bleached kraft sheet polyethylene coated on two sides
<b>3M™ Screen Printable Polyester Performance Label Product 7035</b>	.002 in. White Polyester TC	350 1.1 mil	90# Polycyd. 7.0 mil bleached kraft sheet polyethylene coated on two sides
<b>3M™ Screen Printable Polyester Performance Label Product 7042</b>	.002 in. Matte Platinum Polyester TC	350 1.1 mil	90# Polycyd. 7.0 mil bleached kraft sheet polyethylene coated on two sides
<b>3M™ Screen Printable Polyester Performance Label Product 7911FL</b>	2.0 mil (51 micron) Brushed Silver Polyester TC	350 1.8 mil	.004 in. Clear Polyester Liner (102 microns)

(Calipers are nominal values)

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## Features

- Most universal adhesive for label materials.
- UL recognized (File MH16411) except products 7028FL and 7911FL. See the UL listings for details.
- Adhesive offers excellent chemical resistance and holding strength, even at high temperatures.
- Liner for 3M™ Screen Printable Polyester Performance Label Products 7026, 7028, 7031, 7033, 7035, and 7042 provides easy sheet processing and is designed for layflat. The backside of the liner is not printable.
- Liner for 3M™ Screen Printable Polyester Performance Label Product 7028FL and 7911FL provides easy sheet processing and is designed for layflat applications that require domed decal molding. The backside of the liner is not printable. Polyester liner contributes to improved diecutting by allowing for deeper diecuts than paper without the added concern of exposing paper fibers. The film liner resists breakage during high speed dispensing. The polyester liner is recommended for clean room applications.

## 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.

<b>Peel Adhesion to</b>	<b>Stainless Steel</b>	4.5 lbs./in. (788 N/m)	TLMI Method, 180° Peel, 12"/min., 1" wide sample
	<b>HDPE</b>	2.0 lbs./in. (350 N/m)	TLMI Method, 180° Peel, 12"/min., 1" wide sample
	<b>Polypropylene</b>	3.5 lbs./in. (612 N/m)	TLMI Method, 180° Peel, 12"/min., 1" wide sample
	<b>Polycarbonate</b>	3.5 lbs./in. (612 N/m)	TLMI Method, 180° Peel, 12"/min., 1" wide sample
<b>Shear</b>	> 100 hours	TLMI Method, 0.25 in <sup>2</sup> x 500g	
<b>Adhesive Coat Weight</b>	1.75 to 2.02 g/100 in. <sup>2</sup>	TM-2279	
<b>Release Range</b>	5 to 70 g/2 in.	TLMI Method, 180° removal, 300 in./min.	
<b>Service Temperature</b>	3M™ Label Products 7026, 7028, 7028FL, 7033, 7035, 7042, 7911FL	-20°F to 302°F (-29°C to 150°C)	
	3M™ Label Product 7031	-20°F to 257°F (-29°C to 125°C)	
<b>Minimum Application Temperature</b>	50°F (10°C)		
<b>Convertability</b>	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.		

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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.

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## 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

### Solvent Screen Inks:

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

### Water-based Screen Inks:

Nazdar 2700

### Water-based Flexo Inks:

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

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

### Die Cutting 3M™ Screen Printable Polyester Performance Label Product 7028FL and 7911FL:

Die cut with steel rule, flatbed or rotary dies.

### Doming 3M label product 7028FL and 7911FL:

The 4.0 mil polyester liner does not deform and provides a smooth surface during the doming process.

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## Packaging

Finished labels should be stored in plastic bags.

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## Storage

Store at room temperature conditions of 72°F (22°C) and 50% relative humidity.

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## Shelf Life

If stored under proper conditions, product retains its performance and properties for two years from date of manufacture.

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## Technical Information

The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

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## Product Use

Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application.

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**ISO 9001:2008**

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001:2008 standards.



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