



Clear Polyester Label Products

FM1541 • FM1542

Technical Data

October, 2005

Product Description

3M™ Clear Polyester Label Products FM1541 and FM1542 are durable, high performance materials that offer excellent thermal stability and moisture resistance. These label products utilize 3M™ Adhesive R3500, which is designed for use on smooth surfaces such as glass, metal and plastic (including polystyrene) and offers excellent UV resistance, good initial tack, and long term adhesion with clean removability and is an excellent alternative to static cling.

Note: As a removable adhesive, performance may vary depending upon the substrate to which it is applied. Therefore, extensive testing should be conducted prior to use and textured surfaces should be avoided. Not appropriate for children’s toy or sticker applications.

Construction

Product Number	Facestock	Adhesive	Liner
3M label product FM1541	.002 in. Clear Polyester TC	R3500 Perm. 16	40# SC 2.4 mil semi-bleached super calendered kraft sheet
3M label product FM1542	.002 in. Clear Polyester TC	R3500 Perm. 16	50# SC 3.1 mil semi-bleached super calendered kraft sheet

(Calipers are nominal values)

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 0.9 mil of adhesive on a polished stainless steel panel.

Peel Adhesion	Approx.	0.3 lbs./in. (53 N/m)	TLMI Method, 180° Peel, 12"/min., 1" wide sample
Loop Tack	Approx.	0.5 lbs./in. (88 N/m)	TLMI Method, 12"/min., 1" wide sample
Shear		N/A	TLMI Method, 0.25 in. ² x 500g
Adhesive Coat Weight		1.55 g/100 in. ² ± 10%	3M Method E10MFP01
Release Range		15 to 50 g/2 in.	TLMI Method, 180° removal, 300 in./min.
Service Temperature		-20°F to 155°F (-29°C to 68°C)	
Application Temperature		40°F to 110°F (5°C to 43°C)	
Conformability		Semi-rigid – Label is suitable for flat or slightly curved surfaces.	

Features

- Good initial tack.
- Long term adhesion with clean removability.
- Repositionable.
- Excellent UV resistance.
- Liner is designed for high-speed die cutting and matrix stripping. Not recommended for sheet on press applications.

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Printing

- General purpose topcoating is designed for use with a variety of film inks, including flexo, screen, ion deposition, off set, letter press, hot stamp, and thermal transfer printing (the end user should fully evaluate specific ribbons for suitability).

Water-based Flexo inks:

Akzo Nobel Hydro Film 4000 Series

Arcar Ultra Film Series 5 Inks

Ribbons:

Sony 4070

Sony 4075

Sony 5070

Iimak SP330

Application Ideas

- Pre-mask/paint masking applications.

Storage Conditions

Store under normal conditions of 70°F (21°C) and 50% relative humidity. To minimize the effects of humidity on the products, package the die-cut and printed stock in polyethylene bags. Low density polyethylene (2-4 mils) can help prevent humidity penetration.

Shelf Life

To obtain best performance, use this product within two years from the 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.

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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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