

# 3M Clear Laser Polyester Label Products

FM850 • FM851 • FM852 • FM85B  
FM85J • FM85K • FM85R2

## Technical Data

June, 2006

**Product Description** 3M™ Clear Laser Polyester Label Products are durable high performance materials that offer excellent thermal stability and moisture resistance. These products are suitable for demanding applications such as nameplates and product ID labels. These polyester labels utilize 3M™ Adhesive P1212 which is a high clarity general purpose acrylic emulsion for use on overlamination and decorative films that exhibits good initial tack, excellent die cutting properties, minimal cold flow, and good UV resistance.

Construction	Product Number	Facestock	Adhesive	Liner
	<b>3M™ Clear Laser Polyester Label Product FM850</b>	.002 in. Clear Polyester Clear Laser TC	P1212 Perm. 18	60# SBK 3.4 mil stabilized clay coated two side kraft sheet
	<b>3M™ Clear Laser Polyester Label Product FM851</b>	.002 in. Clear Polyester Clear Laser TC	P1212 Perm. 18	40# SC 2.4 mil semi-bleached super calendered kraft sheet
	<b>3M™ Clear Laser Polyester Label Product FM852</b>	.002 in. Clear Polyester Clear Laser TC	P1212 Perm. 18	50# SC 3.1 mil semi-bleached super calendered kraft sheet
	<b>3M™ Clear Laser Polyester Label Product FM85B</b>	.002 in. Clear Polyester Clear Laser TC	P1212 Perm. 18	80# Polycr./Tiss 5.8 mil bleached kraft sheet coated with polyethylene on two sides and laminated with a tissue on the back side
	<b>3M™ Clear Laser Polyester Label Product FM85J</b>	.002 in. Clear Polyester Clear Laser TC	P1212 Perm. 18	55# Laser 3.6 mil stabilized clay coated two side bleached kraft sheet
	<b>3M™ Clear Laser Polyester Label Product FM85K</b>	.002 in. Clear Polyester Clear Laser TC	P1212 Perm. 18	83# Laser 5.9 mil stabilized bleached kraft sheet
	<b>3M™ Clear Laser Polyester Label Product FM85R2</b>	.002 in. Clear Polyester Clear Laser TC	P1212 Perm. 18	50# SC Remoist 3.1 mil semi-bleached super calendered kraft sheet

(Calipers are nominal values)

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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 0.9 mil of adhesive on a polished stainless steel panel.

<b>Peel Adhesion</b>	3.0 lbs./in. (528 N/m)	TLMI Method, 180° Peel, 12"/min., 1" wide sample
<b>Loop Tack</b>	1.8 lbs./in. (316 N/m)	TLMI Method, 12"/min., 1" wide sample
<b>Shear</b>	3 hours	TLMI Method, 0.25 in <sup>2</sup> x 500g
<b>Adhesive Coat Weight</b>	1.75 g/100 in <sup>2</sup> ± 10%	3M Method E10MFP01
<b>Release Range</b>	<b>3M™ Label Product FM850</b>	30 to 100 g/2 in. TLMI Method, 180° removal, 300 in./min.
	<b>3M™ Label Products FM851, FM852, FM85R2</b>	15 to 50 g/2 in. TLMI Method, 180° removal, 300 in./min.
	<b>3M™ Label Product FM85B</b>	30 to 100 g/2 in. TLMI Method, 180° removal, 300 in./min.
	<b>3M™ Label Products FM85J, FM85K</b>	50 to 150 g/2 in. TLMI Method, 180° removal, 300 in./min.
<b>Service Temperature</b>	-20°F to 257°F (-29°C to 125°C)	
<b>Application Temperature</b>	40°F to 120°F (5°C to 49°C)	

### 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.
- Meets CONEG requirements.
- Liner for 3M™ Clear Laser Polyester Label Product FM850 is ideal for most sheet on press applications. The backside of the sheet is printable.
- Liner for 3M™ Clear Laser Polyester Label Products FM851 and FM852 is designed for high-speed die cutting and matrix stripping. Not recommended for sheet on press applications.
- Liner for 3M™ Clear Laser Polyester Label Product FM85B is recommended for high speed laser sheet applications. The backside of the sheet is printable. Not recommended for desktop printers.
- Liner for 3M™ Clear Laser Polyester Label Products FM85J and FM85K has a special surface finish to enhance feed and reduce static problems. Idea for copier and many desktop laser applications.
- Liner for 3M™ Clear Laser Polyester Label Products FM85R2 is designed for high-speed die cutting and matrix stripping. This liner has been remoisturized after silicone coating to restabilize the sheet and reduce side curl, an excellent choice for perforation and fanfold applications.

### Printing

- A clear polyester topcoating designed for laser printing applications. Also accepts flexo and thermal transfer printing and can be written on with ball point pens and markers (the end user should fully evaluate specific ribbons for suitability).

## 3M<sup>TM</sup> Clear Laser Polyester Label Products

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<b>Application Ideas</b>	• Durable goods, nameplates, product ID labels.
<b>Storage Conditions</b>	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.
<b>Shelf Life</b>	To obtain best performance, use this product within two years from the date of manufacture.
<b>Product Use</b>	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.
<b>Warranty and Limited Remedy</b>	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.
<b>Limitation of Liability</b>	Except where prohibited by law, 3M and seller will not be liable for any loss or damage arising from the 3M product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability.

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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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