

# 3M MC Polyester Label Products

FM041502 • FM041503 • FM042502

Technical Data

August, 2005

**Product Description** 3M™ White Micro-Cavitated Polyester Label Products are durable, high performance materials that offer excellent thermal stability and moisture resistance. These polyester labels utilize 3M™ Adhesive P1480, which is a high performance tackified acrylic formulated for acid resistance and adhesion to polyolefins.

Construction	Product Number	Facestock	Adhesive	Liner
	<b>3M™ MC Polyester Label Product FM041502</b>	.002 in. White Polyester MC	P1480 Perm. 24	50# SC Remoist 3.1 mil semi-bleached super calendered kraft sheet
	<b>3M™ MC Polyester Label Product FM041503</b>	.002 in. White Polyester MC	P1480 Perm. 24	78# CCK 4.7 mil stabilized clay coated two side kraft sheet
	<b>3M™ MC Polyester Label Product FM042502</b>	.002 in. White Polyester MC	P1480 Perm. 18	50# SC Remoist 3.1 mil semi-bleached super calendered kraft sheet

(Calipers are nominal values)

# 3M™ MC Polyester Label Products

FM041502 • FM041503 • FM042502

## 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>	5.0 lbs./in. (880 N/m)	TLMI Method, 180° Peel, 12"/min., 1" wide sample
<b>Loop Tack</b>	3.5 lbs./in. (616 N/m)	TLMI Method, 12"/min., 1" wide sample
<b>Shear</b>	1 hour	TLMI Method, 0.25 in. <sup>2</sup> x 500g
<b>Adhesive Coat Weight</b> 3M™ MC Polyester Label Products FM041502, FM041503 3M™ MC Polyester Label Product FM042502	2.3 g/100 in. <sup>2</sup> ± 10%	3M Method E10MFP01
	1.75 g/100 in. <sup>2</sup> ± 10%	3M Method E10MFP01
<b>Release Range</b> 3M label products FM041502, FM042502 3M label product FM041503	15 to 50 g/2 in.	TLMI Method, 180° removal, 300 in./min.
	30 to 100 g/2 in.	TLMI Method, 180° removal, 300 in./min.
<b>Service Temperature</b>	-22°F to 221°F (-30°C to 105°C)	
<b>Application Temperature</b>	40°F to 120°F (5°C to 49°C)	

## Features

- Meets CONEG requirements.
- 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.
- Adhesive exhibits high initial tack and ultimate adhesion and is formulated to meet the demanding requirements of most battery label specifications.
- Liner for 3M™ MC Polyester Label Products FM041502 and FM042502 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.
- Liner for 3M™ MC Polyester Label Product FM041503 is excellent for sheet on press applications where additional strength and stiffness is required. The backside of this sheet is printable.

## Printing

- Special topcoat is designed for print receptivity with most film ink systems, thermal transfer, copiers and laser printers.

### Water-based Flexo inks:

Akzo Nobel Hydro Film 4000 Series  
 Arcar Ultra Film Series 5 Inks  
 Water Ink Technologies, Inc. Versifilm

### Ribbons:

Sony 4070  
 Sony 4075  
 Sony 5070  
 Imak SP330

### Die Cutting:

Rotary die cutting is recommended. Fanfolding of labels is not recommended. Small labels should be evaluated carefully. Winding tensions should be kept at a minimum to help prevent the adhesive from oozing.

# 3M™ MC Polyester Label Products

FM041502 • FM041503 • FM042502

---

## Application Ideas

- Durable goods, machinery, harsh environments, powder coated paints.

---

## 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.

---

## 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.

---

## Limitation of Liability

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.

**ISO 9001:2000**

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



**Industrial Business  
Converter Markets  
Industrial Adhesives and Tapes Division**

1030 Lake Road  
Medina, OH 44256-0428  
800-422-8116 • 877-722-5072 (fax)  
www.3M.com/converter



*Recycled Paper  
40% pre-consumer  
10% post-consumer*

Printed in U.S.A.  
©3M 2005 70-0711-1196-0 (8/05)