



Clear Polyester Label Products

FM01860N • FM0186R2

Technical Data

February, 2007

Product Description

3M™ Clear Polyester Label Products FM01860N and FM0186R2 are durable, high performance materials that offer excellent thermal stability. These polyester 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 FM01860N	0.002 in. Clear Polyester NTC	R3500 Rem. 16	0.001 in. Clear Polyester Liner
3M label product FM0186R2	0.002 in. Clear Polyester NTC	R3500 Rem. 16	50# SC Remoist 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)	

Features

- Good initial tack.
- Long term adhesion with clean removability.
- Repositionable.
- Excellent UV resistance.
- Liner for 3M label product FM01860N is used when high strength and caliper control are important. Recommended for high speed labeling applications or where clarity of the adhesive is critical.

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Features *(continued)*

- Liner for 3M™ Clear Polyester Label Product FP0186R2 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

- Gloss topcoat is designed to be printable with a variety of film inks and thermal transfer ribbons. The following inks and thermal transfer ribbons have been evaluated and found to give excellent adhesion when tested with 3M™ Tape 610 and 3M™ Tape 810. However, press conditions vary and proper evaluation using your specific conditions is critical and highly recommended for successful ink and ribbon adhesion.

Supplier UV Inks	Ink Series	Printing Process	
XSYS Print Solutions	UNV80071	Letterpress	
	USC50022	Screen	
	USC10031	Screen	
Environmental Inks	Ultra Kote 1800 OPV	Flexo	
	Nazdar	PSST-3952	Screen
	Norcote	02-022, 80049, 02304, 021019	Screen
Water Based			
XSYS Print Solutions	HMF80071	Flexo	
	HMF90100	Flexo	
	MHF30004	Flexo	
Water Ink Technologies	WFLO 42976	Flexo	
	Environmental Inks	Aqua Polyscreen Plus	Flexo
Wykoff Inks	Aqua Poly Cup	Flexo	
	SCF 6551	Flexo	
Solvent Based			
Siegwerk Ink	FCTB65L2	Flexo	
	FCTD65L4	Flexo	
	FCTE65L3	Flexo	
	FCTH65L5	Gravure	
Nazdar	GV124	Screen	
Thermal Transfer			
Ribbon Supplier	Ribbon Series	Ribbon Type	
Armor	AXR7 +	Resin	
	DNP	W137-C	Wax
iimak	M-250	Wax/Resin	
	R510-W	Resin	
	SP330, DC400	Resin	
Ricoh	Prime Mark, PM350	Wax/Resin	
	B110A	Wax/Resin	
Sony	BC110C	Resin	
	3022, 4085 Plus	Wax	
	4070	Resin (UV+)	
	4075	Resin	

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Application Ideas • Instruction labels, POP promotional labels, pre-mask/paint mask 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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This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001:2000 standards.



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