

March, 2017

3M™ Indoor UL Recognized Clear Polyester Overlamine Label Product FM01N

Product Description

3M™ Indoor UL Recognized Clear Polyester Overlamine Label Products are durable, high performance materials that offer excellent thermal stability and moisture resistance. These polyester overlamine labels utilize 3M™ Adhesive P1212, which is a high clarity general purpose acrylic emulsion that exhibits good initial tack, excellent die cutting properties, minimal cold flow, and good UV resistance.

Product 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.
- UL recognized for indoor use files MH11410 and MH16411.
- Liner for 3M™ Indoor UL Recognized Clear Polyester Overlamine Label Product FM01N 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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Technical Information Note

The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Construction Tested

Adhesion properties determined per TLMI Method using 1.0 mil polyester with 0.9 mil of adhesive on a polished stainless steel panel.

Typical Physical Properties

Property	Values	
Facestock	Clear Polyester NTC	
Facestock Thickness	0.025 mm	1 mil
Adhesive	P1212 Perm. 16	
Liner	Clear Polyester	
Liner Thickness	0.038 mm	1.5 mil
Adhesive Coat Weight	1.40 to 1.71 g/100 in ²	

Convertability

3M™ General Purpose Acrylic Adhesive P1212 is designed to be compatible with a variety of print methods and indoor end use applications. Adhesive processing issues are not anticipated when proper roll tensions, handling and storage conditions are used. 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.

*Note

For all clear film face and clear film liner material combinations, a slight appearance variation may be observed along the roll edge. This effect is due to the facestock’s haze tolerance and is further magnified by the clear film liner and multiple wraps of clear films. This variation is not associated with a color shift of the facestock and does NOT negatively affect the labelstock’s clarity in the final overlamination application.

Note

Calipers are nominal values

Typical Performance Characteristics

Property	Values		Method	Notes
Application Temperature	5 to 49 °C	40 to 120 °F		
Service Temperature Range	-29 to 125 °C	-20 to 257 °F		
180° Peel Strength	5.28 N/cm	48 oz/in	TLMI	12 in/min, 1 in wide sample

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Typical Performance Characteristics (continued)

Property	Values		Method	Notes
Loop Tack	3.16 N/cm	28.8 oz/in	TLMI	12 in/min, 1 in wide sample
Shear	3 hr		TLMI	0.25 in ² x 500g
Release Range	10 to 30 g/2 in		TLMI	180° removal, 300 in/min

Handling/Application Information

Application Ideas

Overlaminates for labels used on durable goods, nameplates and product ID's.

Application Techniques

For maximum bond strength, surface should be clean and dry. A typical cleaning solvent is heptane or isopropyl alcohol.

Note: Consult the manufacturer's MSDS for proper handling and storage of solvents. For best conditions, application surface should be at room temperature or higher. Low temperature surfaces (below 10°F [-12°C]) can cause the adhesive to become so firm that it will not develop contact with the substrate. Higher initial bonds are achieved through increased rub down pressure.

Printing

This film is not treated for printability.

Storage and Shelf Life

Store at room temperature conditions of 72°F (22°C) and 50% relative humidity. All unconverted and converted label materials should be stored in polyethylene protections to minimize the effects of humidity penetration.

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

Industry Specifications

FDA 21 CFR 175.105

UL recognized for indoor use (Files MH11410 and MH16411)

Family Group

	FM010	FM012	FM012R	FM013	FM014	FM015	FM011	FM017	FM018	FM019	FM01G	FM01N	FM0139	FM016
Facestock	Clear Polyester NTC	Clear Polyester NTC	Clear Polyester NTC	Clear Polyester NTC	Clear Polyester NTC	Clear Polyester NTC	Clear Polyester NTC	Clear Polyester NTC	Clear Polyester NTC	Clear Polyester NTC	Clear Polyester NTC	Clear Polyester NTC	Clear Polyester NTC	Clear Polyester NTC
Facestock Thickness (mm)	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
Adhesive	P1212 Perm. 16	P1212 Perm. 16	P1212 Perm. 16	P1212 Perm. 16	P1212 Perm. 16	P1212 Perm. 16	P1212 Perm. 16	P1212 Perm. 16	P1212 Perm. 16	P1212 Perm. 16	P1212 Perm. 16	P1212 Perm. 16	P1212 Perm. 16	P1212 Perm. 16

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Family Group (continued)

	FM010	FM012	FM012R	FM013	FM014	FM015	FM011	FM017	FM018	FM019	FM01G	FM01N	FM0139
Liner	60# SBK bleached clay coated two side kraft sheet	50# SC semi-bleached super calendered kraft sheet	50# SC Remoist semi-bleached super calendered kraft sheet	78# CCK stabilized clay coated two side kraft sheet	100# Printa ble bleach ed clay coated one side sheet	90# Polycd. bleached kraft sheet polyethylene coated on two sides	40# SC semi-bleached super calendered kraft sheet	60# SC semi-bleached super calendered kraft sheet	44# Poly/Kraft liner where polypropylene has been laminated to a 44# brown kraft sheet	Clear Polyester	Clear Polypropylene	Clear Polyester	Clear Polyester
Liner Thickness (mm)	0.086	0.079	0.079	0.12	0.19	0.18	0.061	0.086	0.079	0.038	0.051	0.038	0.038

References

- 3m.com Product Page
 Url: https://www.3m.com/3M/en_US/company-us/all-3m-products/-/3M-Overlaminated-Label-Materials/?N=5002385+3291133893&rt=rud
- Safety Data Sheet
 Url: https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=FM01N

ISO Statement

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

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