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3M™ Indoor UL Recognized Clear Polyester Overlamine Label Product FM452

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 label product FM452 is designed for high-speed die cutting and matrix stripping. Not recommended for sheet on press applications.

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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	0.13 mm	5 mil
Adhesive	P1212 Perm. 18	
Liner	50# SC semi-bleached super calendered kraft sheet	
Liner Thickness	0.061 mm	2.4 mil
Adhesive Coat Weight	1.75 g/100 in ² ± 10%	

*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
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	5 to 25 g/2 in		TLMI	180° removal, 300 in/min

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Handling/Application Information

Application Ideas

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

Storage and Shelf Life

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.

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

Industry Specifications

UL recognized for indoor use (Files MH11410 and MH16411)

FDA 21 CFR 175.105

Meets CONEG requirements

Family Group

	FM452	FM452T	FM459
Facestock	Clear Polyester NTC	Clear Polyester NTC	Clear Polyester NTC
Facestock Thickness (mm)	0.13	0.13	0.13
Adhesive	P1212 Perm. 18	P1212 Perm. 18	P1212 Perm. 18
Liner	50# SC semi-bleached super calendered kraft sheet	50# SC - 60 g semi-bleached super calendered kraft sheet	Clear Polyester
Liner Thickness (mm)	0.061	0.079	0.038

References

1. Safety Data Sheet

Url: https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=FM452

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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