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3M™ Indoor UL Recognized Lexan Label Product FLO2N

Product Description

3M™ Indoor UL Recognized Lexan Label Products are durable, matte clear polycarbonate overlaminates that offer excellent moisture and abrasion resistance. These lexan 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

- 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, UL files MH11410 and MH16411.
- Liner for 3M label product FLO2N 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 1.0 mil of adhesive on a polished stainless steel panel.

Typical Physical Properties

Property	Values	
Facestock	Velvet Lexan	
Facestock Thickness	0.076 mm	3 mil
Adhesive	P1212 Perm. 22	
Liner	Clear Polyester	
Liner Thickness	0.038 mm	1.5 mil
Adhesive Coat Weight	1.89 to 2.31 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

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 60 °C	-20 to 140 °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 30 g/2 in		TLMI	180° removal, 300 in/min

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Handling/Application Information

Application Ideas

- Decorative nameplates.
- Speciality overlamine for durable goods, power tools, equipment and machinery.

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

UL recognized for indoor use (Files MH11410 and MH16411)
FDA 21 CFR 175.105

Family Group

	FLO28	FLO29	FLO2N
Facestock	Velvet Lexan	Velvet Lexan	Velvet Lexan
Facestock Thickness (mm)	0.076	0.076	0.076
Adhesive	P1212 Perm. 22	P1212 Perm. 22	P1212 Perm. 22
Liner	50# Polykraft liner where polypropylene has been laminated to a 44# brown kraft sheet	Clear Polyester	Clear Polyester
Liner Thickness (mm)	0.079	0.038	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=FLO2N

ISO Statement

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

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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