



Technical Data Sheet

3M™ Velvet Textured Polycarbonate Overlaminating Film 7738FL



[Product Details](#)

Product Description

3M™ Velvet Textured Polycarbonate Overlaminating Film 7738FL utilizes velvet textured polycarbonate film to achieve a decorative velvet appearance. 3M™ Adhesive 400 offers low temperature performance and long term aging for resistance to yellowing in outdoor applications.

Product Features

- Velvet textured polycarbonate overlaminate offers the opportunity to achieve the attractive appearance of a subsurface screen printed nameplate with an economical overlaminate construction which can create looks that are unique.
- Film liner offers superior graphic appearance when overlaminating metallized or darker surfaces.
- UL Recognized file MH11410

Technical Information Note

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

Typical Physical Properties

Attribute Name	Value
Adhesive Type	#400 Acrylic
Facestock	Velvet Clear Lexan
Adhesive Coat Weight	1.05 — 1.65 g/100 in ²

Attribute Name	Value
Adhesive Thickness	0.02 mm (0.8 mil)
Facestock Thickness	0.13 mm (5 mil)
Liner	Clear Polyester
Liner Thickness	0.038 mm (1.5 mil)

Attribute Name	Value
Convertability	Low temperature, high clarity 3M™ Acrylic Adhesive 400 is specifically designed to be compatible with a variety of print methods and overlaminate applications. When converting labels for thermal transfer applications, care should be taken with regard to proper roll tensions, handling and storage conditions.

Typical Performance Characteristics

Temperature: 23 °C (73 °F)

Attribute Name	Test Method	Dwell Time	Substrate	Value
180° Peel Adhesion	ASTM D3330	10 min	Stainless Steel	4.2 N/cm (38 oz/in) ¹
Liner Release	TLMI			5 — 55 g/2 in ²

¹ 304 mm/min (12 in/min)

² 180° removal, 300 in/min

Attribute Name	Value
Minimum Application Temperature	-12 °C (10 °F)
Long Term Temperature Resistance	121 °C (250 °F) ¹
Minimum Long Term Temperature Resistance	-40 °C (-40 °F) ¹

¹ Long Term (day, weeks)

Attribute Name	Value
Note	Calipers are nominal values

Typical Environmental Characteristics

Chemical and Environmental Exposure

Samples were applied to stainless steel panels and allowed to dwell for 24 hours prior to exposures.

Liquid Dwell Time/Exposure Condition Results

Isopropyl Alcohol @ Room Temperature 4 hours Good appearance - 1/16" edge penetration
 5% Sulfuric Acid @ Room Temperature 4 hours Good appearance - no edge penetration
 Engine Oil @ 250°F (121°C) 4 hours Good appearance - no edge penetration
 Water @ Room Temperature 24 hours Good appearance - edge penetration

Humidity Resistance

1 day at 95°F (35°C) and 95% relative humidity: no change

Temperature Resistance

-40°F (-40°C) to 250°F (121°C) for 1 day: no change

Printing

This film is not treated for printability.

Handling/Application Information

Application Techniques

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

For best bonding conditions, application surfaces should be at room temperature or slightly higher. Low temperature surfaces, below 50°F (10°C), cause the adhesive to become firm and will not allow the adhesive to flow and develop intimate contact with the substrate.

*Note: When using solvents, read and follow the manufacturer's precautions and directions for use.

Industry Specifications

UL Recognized, File PGGU2.MH11410, Marking & Labeling System Materials - Component, ANSI/UL 969

Storage and Shelf Life

Store under normal conditions of 16° to 27°C (60° to 80°F) and 40 to 60% relative humidity in the original packaging, out of direct sunlight. For best performance, use this product within 12 months from date of manufacture.

Information

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ISO Statement

This product was manufactured under a 3M quality system registered to ISO 9001 standards.

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