



## Technical Data Sheet

### 3M™ Polyester Overlaminating Film 7731FL

[Additional Info](#)

[Regulatory Info/SDS](#)

#### **Product Description**

3M™ Polyester Overlaminating Films utilize a clear or matte polyester film that is recommended for optimum durability and outdoor UV exposure. 3M™ Adhesive 400 offers low temperature performance and long term aging for resistance to yellowing in outdoor applications.

#### **Product Features**

- These polyester overlaminates are abrasion, humidity and solvent resistance materials that offer high-bond strength to resist edge lifting UV exposure resistant for extended periods of time.
- 3M polyester overlaminating film 7731FL film liner version offers graphic appearance for metallized or darker colors. The polyester liner is recommended for clean room applications.
- 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	Clear Polyester

Attribute Name	Value
Adhesive Thickness	0.02 mm (0.8 mil)
Facestock Thickness	0.05 mm (2 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 overlaminating 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**

### **180° Peel Adhesion**

Temperature: 23 °C (73 °F)

Test Method: ASTM D3330

Dwell Time	Substrate	Value
10 min	Polyester (PET)	5.2 N/cm (48 oz/in) <sup>1</sup>
10 min	Stainless Steel	4.9 N/cm (45 oz/in) <sup>1</sup>
72 h	Polyester (PET)	5.5 N/cm (51 oz/in) <sup>1</sup>
72 h	Stainless Steel	6.5 N/cm (60 oz/in) <sup>1</sup>

<sup>1</sup> 300 mm/min (12 in/min)

Temperature: 23 °C (73 °F)

Attribute Name	Test Method	Value
Liner Release	TLMI	1 – 10.8 g/cm (5 – 55 g/2 in) <sup>1</sup>

<sup>1</sup> 180° removal, 300 in/min

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

<sup>1</sup> Long Term (day, weeks)

Attribute Name	Value
Note	Calipers are nominal values

## **Typical Environmental Characteristics**

### **Environmental Resistance**

#### **Chemical Resistance:**

**Isopropyl Alcohol:** No Change

**Detergent:** No Change

Engine Oil at 250°F (121°C): No Change

**Water for 48 hours:** Slight Fogging

#### **Temperature Resistance:**

300°F (149°C) for 24 hours: Slight Yellowing

-40°F (-40°C) for 24 hours: No Change

#### **Humidity Resistance:**

24 hours at 100°F (38°C) at 100% relative humidity:

**3M polyester overlaminating film 7732FL:** Slight Change, Cloudy

3M polyester overlaminating film 7730FL/31FL/33FL/41/42: No Change

## **Printing**

Facestocks are not print treated.

## **Converting**

Rotary or flat-bed after lamination.

## **Handling/Application Information**

### **Application Examples**

- Protective overlaminates for label and nameplate graphics can be used on appliances, industrial equipment, tools etc.
- Graphics requiring a high-gloss or matte appearance.

### **Application Techniques**

For maximum bond strength, the surface should be clean and dry. Typical cleaning solvents are heptane and isopropyl alcohol.\*

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

Higher initial bonds are achieved through increased rub down pressure. Use maximum laminating pressure for best results.

\*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**

**Technical Information:** The technical information, guidance, and other statements contained in this document or otherwise provided by 3M are based upon records, tests, or experience that 3M believes to be reliable, but the accuracy, completeness, and representative nature of such information is not guaranteed. Such information is intended for people with knowledge and technical skills sufficient to assess and apply their own informed judgment to the information. No license under any 3M or third party intellectual property rights is granted or implied with this information.

**Product Selection and Use:** Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. As a result, customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's application, including conducting a workplace hazard assessment and reviewing all applicable regulations and standards (e.g., OSHA, ANSI, etc.). Failure to properly evaluate, select, and use a 3M product and appropriate safety products, or to meet all applicable safety regulations, may result in injury, sickness, death, and/or harm to property.

**Warranty, Limited Remedy, and Disclaimer:** Unless a different warranty is specifically stated on the applicable 3M product packaging or product literature (in which case such warranty governs), 3M warrants that each 3M product meets the applicable 3M product specification at the time 3M ships the product. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE. If a 3M product does not conform to this warranty, then the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price.

**Limitation of Liability:** Except for the limited remedy stated above, and except to the extent prohibited by law, 3M will not be liable for any loss or damage arising from or related to the 3M product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability.

**Disclaimer:** 3M industrial and occupational products are intended, labeled, and packaged for sale to trained industrial and occupational customers for workplace use. Unless specifically stated otherwise on the applicable product packaging or literature, these products are not intended, labeled, or packaged for sale to or use by consumers (e.g., for home, personal, primary or secondary school, recreational/sporting, or other uses not described in the applicable product packaging or literature), and must be selected and used in compliance with applicable health and safety regulations and standards (e.g., U.S. OSHA, ANSI), as well as all product literature, user instructions, warnings, and limitations, and the user must take any action required under any recall, field action or other product use notice. Misuse of 3M industrial and occupational products may result in injury, sickness, or death. For help with product selection and use, consult your on-site safety professional, industrial hygienist, or other subject matter expert. For additional product information, visit [www.3M.com](http://www.3M.com).

## **ISO Statement**

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

3M™ Industrial Adhesives and Tapes Division  
3M Center, St. Paul, MN 55144-1000  
3M.com/iatd

3M is a trademark of 3M Company.  
©3M 2025 (12/25)