



# **Technical Data Sheet**

English-US Last Revision Date: September, 2024

Supersedes: June, 2024

3M<sup>™</sup> Polypropylene Label Material 7777



Product Details

# **Product Description**

3M<sup>™</sup> Polypropylene Label Material 7777 is a durable material that offers thermal stability and moisture resistance. This label material utilizes 3M<sup>™</sup> Permanent Acrylic Adhesive, which is designed for use in various applications.

# **Product Features**

· Corona-treated facestock for improved ink receptivity.

Film stiffness allows easy die cutting and dispensing for automatic applications.
Bright white and high opacity facestock.

Permanent acrylic adhesive offers high initial tack and is designed for use on a wide variety of substrates including low surface energy (LSE) plastics.
 UL recognized (File MH16411) and CSA accepted (File 99316). See the UL and CSA listings for details.

## **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        | Permanent acrylic                |
| Facestock            | White Polypropylene T2S          |
| Adhesive Coat Weight | 1.75 g/100 in <sup>2</sup> ± 10% |

| Attribute Name      | Value                            |
|---------------------|----------------------------------|
| Adhesive Thickness  | 0.023 mm (0.9 mil)               |
| Facestock Thickness | 0.066 mm (2.6 mil)               |
| Liner               | 50# super calendered kraft sheet |
| Liner Thickness     | 0.08 mm (3.2 mil)                |

| Attribute Name | Value  |
|----------------|--|
| Convertability | 3M <sup>™</sup> Permanent Acrylic Adhesive is specifically designed to |
|                | be compatible with a variety of print methods and 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.                                   |

# **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 Performance Characteristics**

Test Method: TLMI

| Attribute Name     | Temperature   | Substrate       | Value                               |
|--------------------|---------------|-----------------|-------------------------------------|
| 180° Peel Adhesion | 23 °C (73 °F) | Stainless Steel | 3.85 N/cm (35.2 oz/in) <sup>1</sup> |
| Liner Release      | 23 °C (73 °F) |                 | 15 — 50 g/2 in 2                    |
| Shear Adhesion     |               |                 | 4 h <sup>3</sup>                    |
| Loop Tack          |               |                 | 3.16 N/cm (28.8 oz/in) <sup>1</sup> |

<sup>1</sup> 304 mm/min (12 in/min)

<sup>2</sup> 180° removal, 300 in/min

<sup>3</sup> 0.25 in<sup>2</sup> x 500g

| Attribute Name                           | Value                        |
|--|------------------------------|
| Application Temperature                  | 5 - 49 °C (40 - 120 °F)      |
| Long Term Temperature Resistance         | 125 °C (257 °F) <sup>1</sup> |
| Minimum Long Term Temperature Resistance | -29 °C (-20 °F) 1            |

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

| Attribute Name | Value                       |
|----------------|-----------------------------|
| Note           | Calipers are nominal values |

# **Printing**

Facestock is corona treated for improved ink receptivity. Facestock is printable by all standard roll processing methods including Flexography, hot stamp, letterpress and screen printing. The following thermal transfer ribbons are suggested for possible use with product 7777

Armor:AXR-7+; AXR-600 Dai Nippon:R-300; R-316; M-230 limak:SP-330; PrimeMark

Intermec:Premium Ricoh:B110A; B110C Sony:TR4070; TR5070

Zebra:4065; 5095

# **Converting**

Rotary die cutting is recommended. Fanfolding of labels is not recommended.

### Handling/Application Information

#### **Application Examples**

• Light duty durable applications such as Barcode, Property Identification or Asset Labels.

• Warning, Instruction and Service Labels for Durable Goods.

#### **Application Techniques**

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

• For best bonding conditions, application surface should be at room temperature or slightly higher. Low temperature surfaces, below 50°F (10°C), cause the adhesive to become so firm that it will not develop maximum contact with the substrate.

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

\*Note: Consult the manufacturer's Material Safety Data Sheet for proper handling and storage of solvents.

#### Industry Specifications

UL Recognized (File MH16411) CSA Accepted (File 99316)

### Storage and Shelf Life

Store under normal conditions of 16° to 27°C (60° to 80°F) and 40 to 60% relative humidity in a sealed plastic bag, out of direct sunlight. For best performance, use this product within 24 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.

#### **ISO Statement**

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

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

3M is a trademark of 3M Company.  $\cite{C}$  3M 2024 (9/24)