



PET Durable Label Material

8417 • 8418

Technical Data

October 2017

Product Description 3M™ PET Durable Label Material 8417 is a self-wound (linerless) transparent polyester film coated with 3M™ Adhesive 100 High-temperature Acrylic. It is often used as an overlamine in conjunction with 3M™ PET Durable Label Material 8418.

3M™ PET Durable Label Material 8418 is a white polyester film coated with 3M Adhesive 100 High-temperature Acrylic and has a liner.

Typical Physical Properties

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

Component Description	3M polyester film tape 8417	3M polyester film tape 8418
Facestock Thickness (polyester)	1.0 mils (25 microns)	1.0 mils (25 microns)
Adhesive Thickness (3M Adhesive 100 High-temperature Acrylic)	1.2 mils (30 microns)	1.2 mils (30 microns)
Total Thickness	2.2 mils (56 microns)	2.2 mils (56 microns)
Elongation at Break	100%	100%
Tensile Strength	25 lb./in. (435 N/100 mm)	20 lb./in. (350 N/100 mm)

Features

- Adheres instantly to a variety of surfaces.
- Tough film backing resists edge tear when processing and dispensing.
- Non-corrosive and chemical resistant.
- High and low temperature stability.
- 3M™ Polyester Film Tape 8418 is printable with common processes and inks.
- 3M™ Polyester Film Tape 8417 provides good transparency when used as an overlamine.

Application Ideas

- Fluid-line identification.
- General identification applications where chemical and temperature resistance is desired.

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Performance Characteristics

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Dynamic Peel Adhesion:

ASTM D-3330, 180° Peel, 10 minute dwell.

Substrate	3M™ Polyester Film Tape	oz./in.	N/100 mm
Glass	8417	45	49
	8418	38	42
Stainless Steel	8417	38	41
	8418	33	36
Polypropylene	8417	11	12
	8418	15	16
ABS	8417	35	38
	8418	25	27

Environmental Performance

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Chemical Resistance:

4 hour immersions at room conditions,
2" x 2" samples on stainless steel substrate.

Chemical	Edge Penetration	Appearance
Isopropyl Alcohol	0	No Change
10W30 Oil	0	No Change
Acid (pH 4)	0	No Change
Base (pH 10)	0	No Change
Water	0	No Change

Temperature Resistance:

24 hour exposure, 2" x 2" samples on stainless steel.

Condition	Appearance	At 90% R.H.
-40°F (-40°C)	No Change	
90°F (32°C)	No Change	No Change
120°F (48°C)	No Change	
158°F (70°C)	No Change	
200°F (93°C)	No Change	No Change

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Processing

- **Printing –**
Compatible with many flexographic processes and inks. Customer should determine conformance to specific requirements. 3M™ Polyester Film Tape 8418 can be thermal transfer printed. Suggested ribbons are Sony 4070, Sata Premier I and Armor AXR7.
 - **Dispensing –**
Suitable for dispensing by manual or automatic dispensing systems or by hand. Typical Unwind: 3 oz./in. (3 N/100 mm); shocky.
 - **Roll Sizes –**
Available in a number of standard widths and lengths. Contact your 3M sales representative, customer service representative, or 3M price book for specific size availability.
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Application Techniques

Substrates should be thoroughly cleaned and dried for best adhesion performance. Typical cleaning solvents are heptane or isopropyl alcohol. Consult manufacturer's Material Safety Data Sheet (MSDS) for proper handling and storage instructions.

Maximum initial bonds are formed by using increased rub down pressure. Use a rubber roller or a squeegee with maximum hand pressure for best results.

When using these tapes below 50°F (10°C), the adhesive will not flow as easily. Increased rub down may be required to achieve the desired bond strength.

Special care should be taken when using any overlaminating film to prevent entrapped air and wrinkles.

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Storage Store at room temperature conditions of 72°F (23°C) and 50% relative humidity.

Shelf Life Product retains its performance and properties for two years from date of manufacture.

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ISO 2001

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

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