



Polyester Label Material

7746

Technical Data

March, 2010

Product Description

3M™ Label Material 7746 with 3M™ Adhesive 320 offers excellent adhesion to high surface energy plastics and metals, and excellent long term aging. The polyester film facestock has high abrasion and scuff resistance, provides good weatherability up to 1½ years and solvent resistance. The facestock is topcoated for ink receptivity with flexo, letterpress and screen printing processes.

Construction

Facestock	Adhesive	Liner
2.0 mil (50 microns) Clear polyester gloss TC	0.8 mil (20 microns) 320 high-tack acrylic	3.2 mil (81 microns) 55# densified kraft

Typical Physical Properties and Performance Characteristics

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

Conformability	Conforms to small diameter simple curved surfaces.
Printing	Facestocks are top coated for ink receptivity. Refer to the Graphic Ink Selection Guide or call customer service at 800-223-7427 for ink recommendations.
Temperature Range	-40°F (-40°C) to 250°F (121°C)
Minimum Application Temperature	50°F (10°C)
Die-Cutting	Rotary or flatbed
Dispensing	Automatic

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Adhesion

Note: Peel test procedure is ASTM D-3330

	Initial (10 Minute Dwell/RT)		Conditioned for 3 Days at Room Temperature 72°F (22°C)	
	180° Peel		180° Peel	
Surface	oz/in	N/100 mm	oz/in	N/100 mm
Stainless Steel	50	54	60	65
Polycarbonate	52	56	55	60
Polypropylene	6	6	6	9

Liner Release

Note: 180° peel of liner from facestock

90"/minute grams/1" width	300"/minute grams/1" width
15	19

Environmental Performance

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	No loss of adhesion, slight discoloration
Detergent @ Room Temperature	4 hours	No loss of adhesion, slight discoloration
Engine Oil @ 250°F (121°C)	4 hours	No loss of adhesion, slight discoloration
Water @ Room Temperature	48 hours	No loss of adhesion, slight discoloration

Temperature Resistance:

250°F (121°C) for 1 day:

No loss of adhesion,
slight discoloration

Humidity Resistance:

1 day at 100°F (38°C) and 100% relative humidity:

No loss of adhesion,
slight discoloration

Application Ideas

- Flexible nameplates, labels and emblems for indoor and outdoor exposure
- Instructions and schematic panels for light and heavy equipment

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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 50°F [38°C]) can 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.

Shelf Life

Two years from date of manufacture of product when properly stored at 72°F (22°C) and 50% relative humidity.

Technical Information

The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

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ISO 9001:2000

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001:2000 standards.



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