



Polyester Label Material 7816E

Product Data Sheet

Issued : July 2009
Supersedes : May 2006

Product Description

3M™ Polyester Label Material 7816E is a 50 micron, gloss white polyester labelstock designed for thermal transfer printing. This product utilizes 3M™ Adhesive 310E, a firm adhesive which resists oozing and provides high strength on a variety of surfaces including high surface energy (HSE) plastics and metals.

Product Descriptor / Dispatch Labelling

7816E 3M TT2 GW PET50-310E-65WG

Physical Properties

Not for specification purposes
(Calipers are nominal values)

Facestock	50 micron gloss white polyester
Adhesive	20 micron 310E acrylic
Liner	56 micron, 62 g/m ² white densified glassine

Key Features

- Facestock is topcoated for thermal transfer printing. Resin ribbons are recommended for optimum durability. The topcoat also provides improved ink anchorage for traditional forms of press printing
- Polyester facestock provides durability in harsh environments.
- Adhesive provides high ultimate adhesion on a variety of substrates, and offers good chemical and UV resistance.
- Densified glassine liner for consistent die cutting.
- UL and cUL recognized (File Number MH18072)

Application Ideas

- Barcode labels and rating plates
- Property identification and asset labeling in harsh environments
- Warning, instruction, and service labels for durable goods.

Performance Characteristics

Not for specification purposes

Standard Test Conditions are 23°C and 50% Relative Humidity

180° Peel Adhesion tested using FINAT Test Procedure FTM 1 (300mm/min)

90° Peel Adhesion tested using FINAT Test Procedure FTM 2 (300mm/min)

Adhesion	20 Minutes at Standard Conditions		72 Hours at Standard Conditions	
	180° Peel N/25mm	90° Peel N/25mm	180° Peel N/25mm	90° Peel N/25mm
Stainless Steel	11.8	8.4	18.7	12.1
ABS	11.6	8.3	15.1	11.3
Polycarbonate	12.9	9.4	18.4	11.6
Polypropylene	8.4	4.4	11.0	6.3

Adhesion	72 Hours at 70°C		72 Hours at - 40°C	
	180° Peel N/25mm	90° Peel N/25mm	180° Peel N/25mm	90° Peel N/25mm
Stainless Steel	20.7	15.3	17.6	11.8
ABS	17.6	12.7	16.1	11.5
Polycarbonate	18.7	14.4	17.6	11.6
Polypropylene	7.7	5.2	10.8	4.7

Adhesion	72 Hours at 40°C and 95% RH	
	180° Peel N/25mm	90° Peel N/25mm
Stainless Steel	23.3	15.1
ABS	17.0	11.1
Polycarbonate	21.0	9.0
Polypropylene	9.5	3.7

Liner Release tested using FINAT Test Procedures

FTM 3 (180° removal of liner from face material at 300mm/min)

FTM 4 (180° removal of liner from face material at 10m/min)

Liner Release	Rate of Removal	Release Force	Units
FTM 3	300 mm per min	15.5	cN/50mm
FTM 4	10 m per min	5.7	cN/25mm

Temperature resistance of label applied to stainless steel.

Other substrates should be tested as per application

Service Temperature	-40 to 150°C
Minimum Application Temperature	5°C

Processing	<p>Printing: Facestock is topcoated for improved ink receptivity and is designed for thermal transfer printing. Thermal transfer printing with resin ribbons is recommended for optimum durability. The topcoat provides improved ink anchorage for standard roll-processing methods including flexography, letterpress, and screen-printing.</p> <p>Die Cutting: Rotary die cutting is recommended. Fanfolding of labels is not recommended. Small labels should be evaluated carefully. Winding tensions should be kept at a minimum to help prevent the adhesive from oozing.</p> <p>Packaging: Finished labels should be stored in plastic bags.</p>
Special Considerations	<p>For maximum bond strength, the surface should be clean and dry. Isopropyl alcohol is a typical cleaning solvent.</p> <p>NOTE: When using solvents, read and follow the manufacturer's precautions and directions for use.</p> <p>For best bonding conditions, application surface should be at room temperature or higher. Low temperature surfaces, below 5°C can cause the adhesive to become so firm that it will not develop maximum contact with the substrate. Higher initial bonds can be achieved through increased rubdown pressure.</p>
Storage	<p>Store at standard room temperature conditions of 21°C and 50% relative humidity.</p>
Shelf Life	<p>24 months from date of dispatch by 3M when stored in the original packaging at 21°C & 50 % relative humidity</p>
For Additional Information	<p>To request additional product information or to arrange for sales assistance, call: 08-92 22 50</p> <p>Address correspondence to: 3M Svenska AB, Industri, 191 89 Sollentuna</p>
Important Notice	<p>All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. However, many factors beyond 3M's control can affect the use and performance of a 3M product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method or application. All questions of liability relating to this product are governed by the terms of the sale subject, where applicable, to the prevailing law</p>

Values presented have been determined by standard test methods and are average values not to be used for specification purposes.

Our recommendations on the use of our products are based on tests believed to be reliable but we would ask that you conduct your own tests to determine their suitability for your applications.

This is because 3M cannot accept any responsibility or liability direct or consequential for loss or damage caused as a result of our recommendations

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**3M Svenska AB
Industri**

Bollstanäsvägen 3

191 89 Sollentuna

Tel: 08-92 22 50

Fax: 08-92 22 88

E-post: kundservice@mmm.com

www.3m.se/tejp