



3M™ Polyester Label Material 7816EK

Product Data Sheet

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Supersedes : New

Product Description

3M Polyester Label Material 7816EK is a 50 micron white polyester labelstock with gloss print receptive topcoat. 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

7816EK TT2 GW PET50-310E-90LK

Physical Properties

Not for specification purposes
(Calipers are nominal values)

Facestock	50 micron gloss white polyester
Adhesive	20 micron 310E acrylic
Liner	93 micron, 90 g/m ² white kraft liner

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.
- 90 g/m² clay coated kraft liner can be back printed.

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	43.5	cN/50mm
FTM 4	10 m per min	15.2	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	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. The compatibility of ink systems and printing methods should be verified by testing in the actual process. 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. Packaging: Finished labels should be stored in plastic bags.
Special Considerations	For maximum bond strength, the surface should be clean and dry. Isopropyl alcohol is a typical cleaning solvent. NOTE: When using solvents, read and follow the manufacturer's precautions and directions for use. 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.
Storage	Store at standard room temperature conditions of 21°C and 50% relative humidity.
Shelf Life	24 months from date of dispatch by 3M when stored in the original packaging at 21°C & 50 % relative humidity
For Additional Information	To request additional product information or to arrange for sales assistance, call 08-92 22 50 Address correspondence to: 3M Svenska AB, Industri, 191 89 Sollentuna
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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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