Polyester Label Material 7871EJ

Product Data Sheet

Issued : June 2009
Supersedes : June 2006

Product Description

3M™ Polyester Label Material 7871EJ is a 50 micron, gloss white polyester labelstock designed for thermal transfer printing. This product utilizes 3M™ Adhesive 350E, designed to provide excellent adhesion to high and low surface energy plastics, metals, painted metals and powder coatings.

Product Descriptor / Dispatch Labelling

7871EJ 3M TT2 GW PET50-350E/46-90DWG

Physical Properties

Not for specification purposes
(Calipers are nominal values)

Facestock	50 micron gloss white polyester
Adhesive	46 micron 350E acrylic
Liner	77 micron, 90 g/m² White Densified Double-sided 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.
- 350E is 3M's most universal labelstock adhesive and offers excellent adhesion, even on low surface energy substrates, combined with excellent temperature and chemical resistance.
- 46 micron adhesive coat weight gives excellent adhesion to textured surfaces
- Densified double-sided glassine liner for consistent die cutting. The double-side liner improves ease of dispensing.
- 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 23ºC and 50% Relative Humidity

180º Peel Adhesion tested using FINAT Test Procedure FTM 1 (300mm/min)
90ºPeel Adhesion tested using FINAT Test Procedure FTM 2 (300mm/min)

Adhesion	20 Minutes at Standard Conditions		72 Hours at Standard Conditions	
	180º Peel N/25mm	90º Peel N/25mm	180º Peel N/25mm	90º Peel N/25mm
Stainless Steel	18.9	17.8	26.9	24.3
ABS	17.2	15.8	22.8	18.1
Polycarbonate	18.2	17.3	23.7	18.5
Polypropylene	18.7	16.7	20.7	18.2

Adhesion	72 Hours at 70ºC		72 Hours at - 40ºC	
	180º Peel N/25mm	90º Peel N/25mm	180º Peel N/25mm	90º Peel N/25mm
Stainless Steel	26.4	25.9	25.4	25.8
ABS	20.8	14.8	21.0	21.9
Polycarbonate	21.6	20.1	22.2	20.8
Polypropylene	15.4	11.8	20.4	20.0

Adhesion	72 Hours at 40ºC and 95% RH	
	180º Peel N/25mm	90º Peel N/25mm
Stainless Steel	26.0	27.6
ABS	18.8	20.9
Polycarbonate	18.9	15.6
Polypropylene	20.5	20.3

Liner Release tested using FINAT Test Procedures
FTM 3 (180º removal of liner from face material at 300mm/min)
FTM 4 (180º removal of liner from face material at 10m/min)

Liner Release	Rate of Removal	Release Force	Units
FTM 3	300 mm per min	18.9	cN/50mm
FTM 4	10 m per min	9.0	cN/25mm

Temperature resistance of label applied to stainless steel.
Other substrates should be tested as per application

Service Temperature	-40 to 150ºC
Minimum Application Temperature	5ºC

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. **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 21ºC 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…… Address correspondence to: 3M
Important Notice	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

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

3M Italia Srl
Adesivi e Nastri per l'Industria
Sistemi di Identificazione
Via Norberto Bobbio, 21
20096 PIOLTELLO MI
TEL.02.70351