3M™ Polyester Label Material 7868E

Product Data Sheet

August 2011
Supersedes : June 2006

Product Description

3M Polyester Label Material 7868E 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

7868E 3M TT2 GW PET50-350E/20-65WG

Physical Properties

Not for specification purposes
(Calipers are nominal values)

Facestock	50 micron gloss white topcoated polyester
Adhesive	20 micron 350E acrylic
Liner	56 micron, 62 g/m² 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 offers good thermal stability and 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.
- 62g/m^2 densified glassine liner assures 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.

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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	15.6	11.2	19.7	14.8
ABS	14.0	10.3	16.8	11.9
Polycarbonate	14.1	10.5	17.4	13.0
Polypropylene	14.5	9.9	16.7	11.2

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	22.7	17.0	19.1	14.7
ABS	18.1	13.9	15.9	12.2
Polycarbonate	18.1	14.3	16.8	13.1
Polypropylene	10.3	7.7	16.5	11.7

Adhesion	72 Hours at 40ºC and 95% RH	
	180º Peel N/25mm	**90º Peel** N/25mm
Stainless Steel	20.4	16.0
ABS	14.9	10.7
Polycarbonate	14.9	9.7
Polypropylene	16.6	11.0

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	12.3	cN/50mm
FTM 4	10 m per min	4.9	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. The compatibility of ink systems and printing methods should be verified by testing in the actual process.

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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	At least 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.
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3M

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