Label Material 57830

Laser Toner Printable Polypropylene Label Material

Technical Data Sheet **Temporary**

Product Description

3M™ Laser Toner Printable Polypropylene Label Materials is matte white polypropylene label stocks. These label products can resist oozing and provide high strength on a variety of surfaces including high surface energy (HSE) plastics and metals.

Construction

(Calipers are nominal values.)

Product	Facestock	Adhesive	Liner
3M label material	2.8 mil (70 micron) Matte white polypropylene	0.8 mil (20 micron) Acrylic	3.1mil White Glassine liner

Features

• Topcoated polypropylene provides excellent toner anchorage for laser toner printing and pen writing. The matte coating resists degradation from scuffing, chemicals, moisture, and wide temperature fluctuations. The topcoat also provides improved ink anchorage for traditional forms of press printing.

• Adhesive is a firm adhesive which resists oozing and provides high strength on a variety of surfaces including high surface energy (HSE) plastics and metals.

• 3M™ label material 90gsm Glassine liner assures consistent die cutting and good layflat.

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Typical Physical Properties

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

Adhesion: 180° peel test procedure is ASTM D 3330.

	Initial Peel Strength (10 Minute Dwell/RT)	
Surface	**Oz./In.**	**N/ mm**
Stainless Steel	59	0.65
Glass	64	0.70
Polypropylene	44	0.48
Polycarbonate	52	0.57
ABS	49	0.54
HDPE	35	0.38

	Conditioned for 24hr at Room Temperature 72°F (22°C)	
Surface	**Oz./In.**	**N/ mm**
Stainless Steel	61	0.66
Glass	68	0.74
Polypropylene	46	0.50
Polycarbonate	58	0.63
ABS	58	0.63
HDPE	36	0.39

	Conditioned for 3 Days at 120°F (49°C)	
Surface	**Oz./In.**	**N/ mm**
Stainless Steel	71	0.75
Glass	69	0.75
Polypropylene	36	0.40
Polycarbonate	60	0.65
ABS	54	0.59
HDPE	34	0.35

Liner Release: 180° Removal of Liner from Facestock

Product	Rate of Removal	Gram/Inch Width	N/100 mm
3M™ Laser Toner Printable Polypropylene Label Material	90 inches/minute	13.6	0.52
	300 inches/minute	16.5	0.64

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Environmental Performance

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

The properties defined are based on four hour immersions at room temperature (72°F/22°C) unless otherwise noted. Samples were applied to stainless steel panels 24 hours prior to immersion and were evaluated one hour after removal from the solution for peel adhesion. Adhesion measured at 180° peel angle (ASTM D 3330) at 12 inches/minute.

Chemical Resistance:

	Appearance	Edge Penetration
Chemical	**Visual**	**Millimeters**
Isopropyl Alcohol	No change	1
Water for 48 hours	No change	0
pH 4	No change	0
pH 10	No change	0

Temperature Resistance: When applied to stainless steel. Other substrates should be tested per application.

5min	266°F (130°C): No significant visual change 284°F (140°C): No significant color change Slightly shrinkage, still functional 311°F (155°C): Slight discoloration
1day	248°F (120°C): No significant visual change 302°F (150°C): Slight yellowing and shrinkage, still functional
1month	194°F (90°C): No significant visual change 230°F (110°C): Slight yellowing and shrinkage, still functional

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Application Techniques

For maximum bond strength, the surface should be clean and dry. Typical cleaning solvents are heptane and isopropyl alcohol.*

For best bonding conditions, application surface should be at room temperature or higher. Low temperature surfaces, below 50°F (10°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.

*When using solvents, read and follow the manufacturer's precautions and directions for use.

Processing

Printing:
Facestock is topcoated for improved ink receptivity and is suitable for laser toner printing and pen writable. It is printable by standard roll processing methods including flexography, letterpress, and screen printing.

Die Cutting:
Rotary die cutting is 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.

Storage

Store at room temperature conditions of 72°F (22°C) and 50% relative humidity.

Shelf Life

If stored under proper conditions, product retains its performance and properties for two years from date of manufacture.

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Product Use

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 of application.

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