

# 3M Recycling-Compatible Label Material 8000

Technical Data

March, 2002

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## Product Description

3M™ Recycling-Compatible Label Material 8000 is ideal for use on certain durable plastic substrates. These substrates can include plastics and mixtures of PC, PS, and ABS.

Film and adhesive system are recycling compatible. This means they have no detrimental effects on the reuse of the above mentioned substrates. The resulting recycled material can be used 100%.

By using Label Material 8000, the normal costs for the removal of non-compatible label materials in the recycling process can be avoided.

This product can be printed using standard printing methods (screen printing, flex printing letter press and wet offset print). Please contact the ink manufacturer for further information concerning the recyclability of the inks. A list of suitable ink manufacturers can be obtained through 3M. Before beginning large scale production, we recommend printing and ink adhesion tests.

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## Construction

Facestock	Adhesive	Liner
Modified Polymer Film White Matte Silk	#350 Acrylic (PSA)	Siliconized Translucent and Paper for roll processing

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## Typical Physical Properties and Performance Characteristics

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

<b>Film Thickness</b>	0.08mm (3.1 mil)
<b>Adhesive Thickness</b>	0.02mm (0.8 mil)
<b>Liner</b>	77 micron (3.0 mil), 90 g/m <sup>2</sup> (#55) White Densified Glassine
<b>Dimensional Stability</b>	<0.2% (Value 02, DIN30646)
<b>Opacity</b>	Covers strongly contrasting colors well
<b>Salt Spray Test</b>	No change after 150 hrs. (DIN 500210-SS)
<b>Surface Corrosion</b>	None
<b>Minimum Application Temperature</b>	+4°C(39°F)

## Adhesion

Note: Peel values are not indicative of the adhesive performance; the facestock is somewhat fragile and breaks before a typical peel value can be registered.

PEEL TEST PROCEDURE IS ASTM-D-3330

Surface	Initial (10 Minute Dwell/RT)		Conditioned for 3 Days at Room Temperature 72°F (22°C)	
	180° Peel		180° Peel	
	gm./In.	N/25 mm	gm./In.	N/25 mm
Stainless Steel	102	19	104	20
Polycarbonate	106	20	106	20
Polystyrene			106	20
Glass	105	20	106	20
Aluminum			107	20
ABS (Smooth)	107	20	107	20

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## Environmental Performance

Samples were applied to aluminum panels and immersed in the fluids at room temperature. Materials were checked for appearance, edge penetration and lift-off.

Chemical Resistance (according to DIN 30646):

Liquid	Dwell Time/Exposure Condition	Results
n-Heptane	1 hour	No change
Distilled Water	8 hours @ +65°C (150°F)	No change
	4 hours; 3 days	No change after 3 days
5% Salt Water	4 hours; 3 days	No change after 3 days
Detergent Solution	4 hours; 3 days	No change after 3 days
pH 4	4 hours; 3 days	No change after 3 days
pH 10	4 hours; 3 days	No change after 3 days
Isopropyl Alcohol	4 hours	1/16" edge penetration
	3 days	3/16" edge penetration
Mineral Spirits	4 hours	1/16" edge penetration
	3 days	3/16" edge penetration
Kerosene	4 hours; 3 days	1/16" edge penetration
Motor Oil	4 hours	No change
	3 days	1/16" edge penetration
Gasoline	4 hours; 3 days	Lifting off at edges
Diesel Fuel	24 hours @ +23°C (73°F)	No change
Engine Cleaner	8 hours @ +23°C (73°F)	No change
Transformer Oil	24 hours @ +23°C (73°F) RT	No change

### Temperature Resistance:

300°F (149°C) for 1 day:

color change from white to tan

-40°F (-40°C) to 200°F (93°C) for 1 day:

no change

for 3 days:

no visible damage

### Humidity Resistance:

1 and 3 days at 90°F (32°C) and 90% relative humidity:

no change

Resistance to Cleaning (Computer Imprinting Using Ink Ribbons)	Liquid	Dot Matrix Printing 3M™ Durascript™ Ink Ribbons	Thermal Transfer Printing 110C, Ricoh™ B110 CX, Sony™ 4070 Astro-Med™ "RY" Armor™ AXR7+
	n-Isopropanol	No change	No change
	n-Heptane	No change	No change
	Ethanol	No change	No change

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## Weathering Resistance      Artificial weathering using Xenon and QUV-Tests

Duration	Results
1000 Hours	Film shows slight yellowing – computer imprinting remains legible

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## Agency Approvals

UL Recognized, File MH16411 for indoor application ([www.ul.com](http://www.ul.com) under certifications)  
CSA: Accepted, File 099316 (<http://directories.csa-international.org>)

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## Shelf Life

Two years from date of manufacture of product when properly stored at 72°F (22°C) and 50% relative humidity.

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## For Additional Information

To request additional product information or to arrange for sales assistance, call toll free 1-800-223-7427 or visit [www.3M.com/converter](http://www.3M.com/converter). Address correspondence to: 3M Engineered Adhesives Division, 3M Center, Building 220-8E-05, St. Paul, MN 55144-1000. Our fax number is 651-733-9175. In Canada, phone 1-800-364-3577. In Puerto Rico, phone 1-787-750-3000. In Mexico, phone 52-70-04-00.

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This Engineered Adhesives Division product was manufactured under a 3M quality system registered to ISO 9002 standards.



**Converter Markets**  
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*Recycled Paper*  
*40% pre-consumer*  
*10% post-consumer*

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