



Polypropylene Label Material

7779

Technical Data

May, 2011

Product Description 3M™ Polypropylene Label Material 7779 with 3M™ Adhesive 350 can permanently bond to high surface energy (HSE) and low surface energy (LSE) plastics, textured and contoured surfaces, powder coatings, and slightly oily metals.

Construction

(Calipers are nominal values.)

Facestock	Adhesive	Liner
2.6 mil (66 micron) White Polypropylene T2S	1.1 mil (28 micron) #350 Acrylic	3.2 mil (81 micron) 55# Densified Kraft

Features

- Corona-treated facestock for improved ink receptivity.
- Good film stiffness allows easy die cutting and dispensing for automatic applications.
- Bright white and high opacity facestock.
- Excellent chemical resistance and holding strength even at high temperatures.
- 55# densified kraft liner assures consistent die cutting.
- Indoor UL and CSA approved. See UL (File MH16411) and CSA (File 99316) listings for details.

3M™ Polypropylene Label Material

7779

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.

90° peel test procedure is ASTM D 3330 modified for the angle change.

	Initial (10 Minute Dwell/RT)				Conditioned for 3 Days at Room Temperature 72°F (22°C)			
	180° Peel		90° Peel		180° Peel		90° Peel	
Surface	Oz./In.	N/100 mm	Oz./In.	N/100 mm	Oz./In.	N/100 mm	Oz./In.	N/100 mm
Stainless Steel	52	57	36	39	55	60	67	73
Polycarbonate	61	67	34	37	69	76	54	59
Polypropylene	29	32	19	21	41	45	29	32
Glass	54	59	55	60	67	73	69	76
HD Polyethylene	27	30	14	15	29	32	23	25
LD Polyethylene	24	26	15	16	24	26	16	18
Smooth Powder Coating	53	58	43	47	60	66	48	52
Finely Textured Powder Coating	30	33	20	22	31	34	19	21

	Conditioned for 3 Days at 158°F (70°C)				Conditioned for 24 hours at 90°F (32°C) at 90% Relative Humidity			
	180° Peel		90° Peel		180° Peel		90° Peel	
Surface	Oz./In.	N/100 mm	Oz./In.	N/100 mm	Oz./In.	N/100 mm	Oz./In.	N/100 mm
Stainless Steel	73	80	58	63	68	74	72	79
Polycarbonate	47	51	21	23	63	69	60	66
Polypropylene	41	45	34	37	58	63	31	34
Glass	76	83	59	64	56	61	60	66
HD Polyethylene	25	27	18	20	32	35	30	33
LD Polyethylene	17	19	12	13	32	35	30	33
Smooth Powder Coating	69	76	52	57	63	69	61	67
Finely Textured Powder Coating	38	42	35	38	33	36	20	22

Liner Release: 180° Removal of Liner from Facestock

Rate of Removal	Gram/Inch Width	N/100 mm
90 inches/minute	19	0.73
300 inches/minute	31	1.20

3M™ Polypropylene Label Material

7779

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 90° peel angle (ASTM D 3330) at 12 inches/minute.

Chemical Resistance:

Chemical	Adhesion to Stainless Steel		Appearance	Edge Penetration
	Oz./in.	N/100 mm	Visual	Millimeters
Isopropyl Alcohol	45	49	No change	1.5
Detergent 1% Alconox® Cleaner	58	63	No change	0
Engine Oil (10W30) @ 250°F (121°C)	1	1	Color nearly transparent	Total
Water for 48 hours	34	37	No change	0
pH 4	63	69	No change	0
pH 10	56	61	No change	2
409® Formula	28	31	No change	0.8
Toluene	0	0	Wrinkling; shrinkage; color nearly transparent	Total
Acetone	27	30	No change	4.8
Brake Fluid	45	49	No change	0
Gasoline	2	2	Wrinkling; color nearly transparent	Total
Diesel Fuel	38	42	No change	0.5
Mineral Spirits	6	6	Wrinkling	7.3
Hydraulic Fluid	46	50	No change	0

Temperature Resistance:

300°F (149°C) for 24 hours: Slight discoloration; 4% shrinkage MD, 10% shrinkage CD
 250°F (121°C) for 24 hours: No significant visual change
 220°F (104°C) for 24 hours: No significant visual change
 -40°F (-40°C) for 10 days: No significant visual change

Humidity Resistance:

24 hours at 90°F (32°C) and 90% relative humidity: No significant change in appearance or adhesion

Accelerated Aging:

ASTM D 3611: 96 hours at 150°F (65°C) and 80% relative humidity

	Rate of Removal	Grams/Inch Width	N/100 mm
180° Removal of Liner from Facestock	90 inches/minute	12	0.46
	Rate of Removal	Oz./In. Width	N/100 mm
180° Peel Adhesion from Stainless Steel	12 inches/minute	45	49

3M™ Polypropylene Label Material

7779

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.

-
- Application Ideas**
- Light duty durable applications.
 - Barcode labels and rating plates.
 - Property identification and asset labeling.
 - Warning, instruction, and service labels for durable goods.
 - Nameplates and durable goods.

Processing

Printing:
Facestock is corona treated for ink receptivity. While not specifically designed for thermal transfer printing, acceptable performance is found for a number of applications. As always, the customer should test to confirm acceptability for their application.

Facestock is printable by all standard roll processing methods including flexography, hot stamp, letterpress, and screen printing. Refer to the Graphic Ink Selection Guide or call 3M Customer Service at 1-800-223-7427 for additional information.

The following thermal transfer ink ribbons are suggested for possible use.

Armor: AXR-7+; AXR-600

Dai Nippon: R-300; R-316; M-230

ICS: 4099-1

Iimak: SP-330; PrimeMark

Intermec: Premium

Mid City Columbia: GGL-80; GGL-80HE

Ricoh: B110A, B110C

Sony: TR4070, TR5070

Zebra: 4065; 5094

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.

3M™ Polypropylene Label Material

7779

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.

Technical Information The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

Product Use Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application.

Warranty, Limited Remedy, and Disclaimer Unless an additional warranty is specifically stated on the applicable 3M product packaging or product literature, 3M warrants that each 3M product meets the applicable 3M product specification at the time 3M ships the product. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY OR CONDITION ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. If the 3M product does not conform to this warranty, then the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price.

Limitation of Liability Except where prohibited by law, 3M will not be liable for any loss or damage arising from the 3M product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability.



This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001:2008 standards.



**Industrial Adhesives and Tapes Division
Converter Markets**

1030 Lake Road
Medina, OH 44256-0428
800-422-8116 • 877-722-5072 (fax)
www.3M.com/converter



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

3M is a trademark of 3M Company.
Alconox is a registered trademark of
Alconox, Inc.
409 is a registered trademark of Clorox.
Printed in U.S.A.
©3M 2011 70070946473 (5/11)