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## 3M™ Computer-Imprintable Polyester Label Material 7880

### Product Features

- Topcoated polyester is compatible with dot matrix printing and is hand writeable. 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.
- #300 adhesive bonds well to a wide variety of substrates including metals, high surface energy (HSE) plastics and low surface energy (LSE) plastics. It is ideal for applications requiring high initial adhesion especially to LSE plastic surfaces.
- 55# densified kraft liner assures consistent die cutting.
- 3M™ Label Material 7880 is UL recognized (Files MH11410 and MH16411) and CSA accepted (File 99316). See the UL and CSA listings for details.



**Technical Information Note**

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

**Typical Physical Properties**

Property	Values	
Facestock	Matte radiant white polyester	
Facestock Thickness	0.058 mm	2.3 mil
Adhesive	#300 Acrylic	
Adhesive Thickness	0.02 mm	0.8 mil
Liner	55# Densified kraft	
Liner Thickness	0.081 mm	3.2 mil

**Note**

Calipers are nominal values

**Typical Performance Characteristics**

90° Peel Adhesion		Dwell/Cure Time	Dwell Time Units	Temp C	Temp F	Environmental Condition	Substrate	Backing
4.2 N/cm	38 oz/in	72	hr	22C	72F	52%RH	Polypropylene (PP)	2 mil PET
46 oz/in	5.0 N/cm	72	hr	22C	72F	52%RH	Stainless Steel	2 mil PET
3.1 N/cm	28 oz/in	72	hr	22C	72F	52%RH	High Density Polyethylene (HDPE)	2 mil PET
34 oz/in	3.7 N/cm	72	hr	22C	72F	52%RH	Low Density Polyethylene (LDPE)	2 mil PET
5.5 N/cm	50 oz/in	72	hr	49C	120F	52%RH	Stainless Steel	
1.9 N/cm	17 oz/in	72	hr	49C	120F	52%RH	Polycarbonate (PC)	
4.6 N/cm	42 oz/in	72	hr	49C	120F	52%RH	Polypropylene (PP)	
5.5 N/cm	50 oz/in	72	hr	49C	120F	52%RH	Glass	
3.2 N/cm	29 oz/in	72	hr	49C	120F	52%RH	High Density Polyethylene (HDPE)	
1.1 N/cm	10 oz/in	72	hr	49C	120F	52%RH	Low Density Polyethylene (LDPE)	

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## Typical Performance Characteristics (continued)

90° Peel Adhesion		Dwell/Cure Time	Dwell Time Units	Temp C	Temp F	Environmental Condition	Substrate	Backing
5.2 N/cm	48 oz/in	72	hr	22C	72F	52%RH	Glass	2 mil PET
5.0 N/cm	46 oz/in	72	hr	22C	72F	52%RH	Polycarbonate (PC)	2 mil PET
5.8 N/cm	53 oz/in	24	hr	32C	90F	90%RH	Stainless Steel	
3.9 N/cm	36 oz/in	24	hr	32C	90F	90%RH	Polycarbonate (PC)	
4.8 N/cm	44 oz/in	24	hr	32C	90F	90%RH	Polypropylene (PP)	
4.8 N/cm	44 oz/in	24	hr	32C	90F	90%RH	Glass	
3.5 N/cm	32 oz/in	24	hr	32C	90F	90%RH	High Density Polyethylene (HDPE)	
3.3 N/cm	30 oz/in	24	hr	32C	90F	90%RH	Low Density Polyethylene (LDPE)	
4.6 N/cm	42 oz/in	10	min	22C	72F	52%RH	Stainless Steel	
4.8 N/cm	44 oz/in	10	min	22C	72F	52%RH	Polycarbonate (PC)	
4.2 N/cm	38 oz/in	10	min	22C	72F	52%RH	Polypropylene (PP)	
4.6 oz/in	42 oz/in	10	min	22C	72F	52%RH	Glass	
3.1 N/cm	28 oz/in	10	min	22C	72F	52%RH	High Density Polyethylene (HDPE)	
2.7 N/cm	25 oz/in	10	min	22C	72F	52%RH	Low Density Polyethylene (LDPE)	

Property: 90° Peel Adhesion  
Method: ASTM D3330  
notes: 12 in/min (300 mm/min)

180° Peel Adhesion		Dwell/Cure Time	Dwell Time Units	Temp C	Temp F	Environmental Condition	Substrate
6.1 N/cm	56 oz/in	10	min	22C	72F	52%RH	Stainless Steel
6.7 N/cm	59 oz/in	10	min	22C	72F	52%RH	Polycarbonate (PC)
5.8 N/cm	53 oz/in	10	min	22C	72F	52%RH	Polypropylene (PP)
6.6 N/cm	60 oz/in	10	min	22C	72F	52%RH	Glass
6.7 N/cm	61 oz/in	72	hr	22C	72F	52%RH	Polycarbonate (PC)

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## Typical Performance Characteristics (continued)

180° Peel Adhesion		Dwell/Cure Time	Dwell Time Units	Temp C	Temp F	Environmental Condition	Substrate
6.1 N/cm	56 oz/in	72	hr	22C	72F	52%RH	Polypropylene (PP)
7.8 N/cm	71 oz/in	72	hr	22C	72F	52%RH	Glass
4.4 N/cm	40 oz/in	72	hr	22C	72F	52%RH	High Density Polyethylene (HDPE)
4.6 N/cm	42 oz/in	72	hr	22C	72F	52%RH	Low Density Polyethylene (LDPE)
7.7 N/cm	70 oz/in	72	hr	49C	120F	52%RH	Stainless Steel
3.3 N/cm	30 oz/in	72	hr	49C	120F	52%RH	Polycarbonate (PC)
5.9 N/cm	54 oz/in	72	hr	49C	120F	52%RH	Polypropylene (PP)
4.4 N/cm	40 oz/in	72	hr	49C	120F	52%RH	High Density Polyethylene (HDPE)
1.0 N/cm	9 oz/in	72	hr	49C	120F	52%RH	Low Density Polyethylene (LDPE)
7.3 N/cm	67 oz/in	72	hr	22C	72F	52%RH	Stainless Steel
7.7 N/cm	70 oz/in	72	hr	49C	120F	52%RH	Glass
7.4 N/cm	68 oz/in	24	hr	32C	90F	90%RH	Stainless Steel
6.0 N/cm	55 oz/in	24	hr	32C	90F	90%RH	Polycarbonate (PC)
7.2 N/cm	66 oz/in	24	hr	32C	90F	90%RH	Polypropylene (PP)
7.3 N/cm	67 oz/in	24	hr	32C	90F	90%RH	Glass
4.9 N/cm	45 oz/in	24	hr	32C	90F	90%RH	High Density Polyethylene (HDPE)
3.9 N/cm	36 oz/in	24	hr	32C	90F	90%RH	Low Density Polyethylene (LDPE)
3.8 N/cm	35 oz/in	10	min	22C	72F	52%RH	High Density Polyethylene (HDPE)
3.5 N/cm	32 oz/in	10	min	22C	72F	52%RH	Low Density Polyethylene (LDPE)

Property: 180° Peel Adhesion  
Method: ASTM D3330  
notes: 12 in/min (300 mm/min)

**Typical Performance Characteristics (continued)**

180° Liner Release		Test Condition
0.054 N/cm width	14 g/in width	90 in/min
0.069 N/cm width	18 g/in width	300 in/min

Property: 180° Liner Release

**Special Considerations**

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

\*\*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 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.

**Typical Environmental Performance**

**Chemical and Environmental Exposure**

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	Adhesion to Stainless Steel		Appearance	Edge Penetration
	Oz./in.	N/100 mm	Visual	Millimeters
Isopropyl Alcohol	60	66	No change	0.8
Detergent 1% Alconox® Cleaner	64	70	No change	0
Engine Oil (10W30) @ 250°F (121°C)	64	70	No change	1
Water for 48 hours	66	72	No change	0
pH 4	65	71	No change	0
pH 10	64	70	No change	0
Formula 409® Cleaner	64	70	No change	0
Toluene	33	36	No change	6.5
Acetone	47	51	No change	4.3
Brake Fluid	74	81	No change	0
Gasoline	36	39	No change	5.8
Diesel Fuel	62	68	No change	1
Mineral Spirits	54	59	No change	2.4
Hydraulic Fluid	66	72	No change	0

**Humidity Resistance**

24 hours at 100°F (38°C) and 100% relative humidity: no significant changes in appearance or adhesion

**Temperature Resistance**

300°F (149°C) for 24 hours: no significant visual change

0.75% MD shrinkage

0.9% CD shrinkage

-40°F (-40°C) for 10 days: no significant visual change

Accelerated Aging		Notes
0.062 N/cm	16 g/in	180° Removal of Liner from Facestock at 90 in/min
5.9 N/cm	54 oz/in	180° Peel Adhesion from Stainless Steel at 12 in/min

Property: Accelerated Aging

Method: ASTM D3611

Test Condition : 96 hr @ 150°F (65°C) and 80% relative humidity

# 3M™ Computer-Imprintable Polyester Label Material 7880

## Processing

**Printing:**  
Facestock is topcoated for improved ink receptivity and is designed for dot matrix printing. It 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.

**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.

## Agency Listing Information

**Dot Matrix Printing:**  
\*UL recognized and CSA accepted component for indoor and outdoor use. The following ribbons are UL recognized when used with this material.

- CGL-79™ from Mid-City Columbia, 800-462-2336 or 800-996-4656
- Ranger 288 from Herbert Dehinton & Co., 847-998-8150

3M does not recommend the Ranger 288 ribbon for bar code printing.

**Laser Toner Printing:**  
UL recognized with the following printers and toners.  
\*Toner and Printer/UL Recognized Components  
Hitachi HMT 446 toner kit for producing finished printed labels with UL listed Synergystex CF-1000 laser printer

## Handling/Application Information

### Application Ideas

- Barcode labels and rating plates.
- Property identification and asset labeling.
- Warning, instruction, and service labels for durable goods.
- Nameplates for durable goods.

## Storage and Shelf Life

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

## Industry Specifications

UL Recognized (Files MH11410 and MH16411)  
CSA Accepted (File 99316)

## References

### Safety Data Sheet (SDS)

[https://www.3m.com/3M/en\\_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en\\_US&co=ptn&q=7880](https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=7880)

## ISO Statement

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

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