

# Technical Data Sheet

## 3M™ Screen Printable Sheet Polyester Label Material 7983

### Product Description

3M™ Screen Printable Sheet Polyester Label Material 7983 is a durable, high performance material that offers excellent thermal stability, moisture resistance and chemical resistance. This material utilizes 3M™ Adhesive 300, which has excellent quick tack and also bonds well to a variety of surfaces including LSE plastics.

### Product Features

- Matte coating is compatible with screen printing and resists degradation from scuffing, chemicals, moisture, and wide temperature fluctuations. Variable information can be added by the end user, as the material is dot matrix printable and hand writable.
- 3M adhesive 300 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.
- Liner provides easy sheet processing and is designed for layflat. The backside of the liner is not printable.
- UL recognized (File MH11410) 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	Additional Information
Adhesive Type	300 Acrylic	
Liner	90# Polycytd. bleached kraft sheet polyethylene coated on two sides	
Liner Thickness	0.17 mm	
Facestock	Matte Silver Polyester TC	
Facestock Thickness	0.083 mm	

Adhesive Thickness

0.8 mil

Adhesive Thickness

0.02 mm

Facestock Thickness

3.3 mil

Liner Thickness

6.7 mil

#### Convertability

3M™ High Strength Acrylic Adhesive 300 is designed to be compatible with a variety of print methods and end use applications. Due to the quick flowing aggressive nature of this adhesive, care should be taken when converting labels for thermal transfer applications. Please refer to the die cutting/converting section of this data page or the “Guide to Converting and Handling Label Products” technical bulletin for additional information.

Adhesive Coat Weight

1.21 to 1.49 g/100 in<sup>2</sup>

## Typical Performance Characteristics

Property

Values

Additional Information

90° Peel Adhesion Polypropylene (PP)

4.2 N/cm

View 

Test Method: ASTM D3330

Test Name: 90° Peel Adhesion

Dwell/Cure Time: 72.0

Dwell Time Units: hr

Temp C: 23C

Temp F: 72F

Environmental Condition: 50%RH

Substrate: Polypropylene (PP)

Backing: 2 mil PET

Notes: 12 in/min (300 mm/min)

Long Term Temp C


149 °C

View 

Test Condition: Long Term (day, weeks)

Minimum Long Term Temperature Resistance

-40 °C

View 

Test Condition: Long Term (day, weeks)

Long Term Temp F

302 °F

View 

Test Condition: Long Term (day, weeks)

Minimum Long Term Temperature Resistance

-40 °F

View 

Test Condition: Long Term (day, weeks)

Minimum Application Temperature

10 °C

Minimum Application Temperature


50 °F

Note

Calipers are nominal values

180° Peel Adhesion

6.1 N/cm

View 

Test Method: ASTM D3330

Dwell/Cure Time: 10.0

Dwell Time Units: min

Temp C: 23C

Temp F: 72F

Environmental Condition: 50%RH

Substrate: Stainless Steel

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

56 oz/in

View 


Test Method: ASTM D3330

Dwell/Cure Time: 10.0  
Dwell Time Units: min  
Temp C: 23C  
Temp F: 72F  
Environmental Condition: 50%RH  
Substrate: Stainless Steel

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

6.7 N/cm

View 

Test Method: ASTM D3330

Dwell/Cure Time: 10.0  
Dwell Time Units: min  
Temp C: 23C  
Temp F: 72F  
Environmental Condition: 50%RH  
Substrate: Polycarbonate (PC)

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

59 oz/in

View 


Test Method: ASTM D3330

Dwell/Cure Time: 10.0  
Dwell Time Units: min  
Temp C: 23C  
Temp F: 72F  
Environmental Condition: 50%RH  
Substrate: Polycarbonate (PC)

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

5.8 N/cm

View 

Test Method: ASTM D3330

Dwell/Cure Time: 10.0  
Dwell Time Units: min  
Temp C: 23C  
Temp F: 72F  
Environmental Condition: 50%RH  
Substrate: Polypropylene (PP)

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

53 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 10.0

Dwell Time Units: min  
Temp C: 23C  
Temp F: 72F  
Environmental Condition: 50%RH  
Substrate: Polypropylene (PP)

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

6.6 N/cm

View 

Test Method: ASTM D3330

Dwell/Cure Time: 10.0  
Dwell Time Units: min  
Temp C: 23C  
Temp F: 72F  
Environmental Condition: 50%RH  
Substrate: Glass

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

60 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 10.0  
Dwell Time Units: min  
Temp C: 23C  
Temp F: 72F  
Environmental Condition: 50%RH  
Substrate: Glass

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

6.7 N/cm

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0  
Dwell Time Units: hr  
Temp C: 23C  
Temp F: 72F  
Environmental Condition: 50%RH  
Substrate: Polycarbonate (PC)

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

61 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0  
Dwell Time Units: hr

Temp C: 23C  
Temp F: 72F  
Environmental Condition: 50%RH  
Substrate: Polycarbonate (PC)

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

6.1 N/cm

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0  
Dwell Time Units: hr  
Temp C: 23C  
Temp F: 72F  
Environmental Condition: 50%RH  
Substrate: Polypropylene (PP)

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

56 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0  
Dwell Time Units: hr  
Temp C: 23C  
Temp F: 72F  
Environmental Condition: 50%RH  
Substrate: Polypropylene (PP)

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

7.8 N/cm

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0  
Dwell Time Units: hr  
Temp C: 23C  
Temp F: 72F  
Environmental Condition: 50%RH  
Substrate: Glass

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

71 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0  
Dwell Time Units: hr  
Temp C: 23C

Temp F: 72F  
Environmental Condition: 50%RH  
Substrate: Glass

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

4.4 N/cm

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0  
Dwell Time Units: hr  
Temp C: 23C  
Temp F: 72F  
Environmental Condition: 50%RH  
Substrate: High Density Polyethylene (HDPE)

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

40 oz/in

View 


Test Method: ASTM D3330

Dwell/Cure Time: 72.0  
Dwell Time Units: hr  
Temp C: 23C  
Temp F: 72F  
Environmental Condition: 50%RH  
Substrate: High Density Polyethylene (HDPE)

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

4.6 N/cm

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0  
Dwell Time Units: hr  
Temp C: 23C  
Temp F: 72F  
Environmental Condition: 50%RH  
Substrate: Low Density Polyethylene (LDPE)

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

42 oz/in

View 

Test Method: ASTM D3330


Dwell/Cure Time: 72.0  
Dwell Time Units: hr  
Temp C: 23C  
Temp F: 72F

Environmental Condition: 50%RH  
Substrate: Low Density Polyethylene (LDPE)

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion Stainless Steel

46 oz/in

View 

Test Method: ASTM D3330

Test Name: 90° Peel Adhesion  
Dwell/Cure Time: 72.0  
Dwell Time Units: hr  
Temp C: 23C  
Temp F: 72F  
Environmental Condition: 50%RH  
Substrate: Stainless Steel  
Backing: 2 mil PET

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

3.1 N/cm

View 


Test Method: ASTM D3330

Dwell/Cure Time: 72.0  
Dwell Time Units: hr  
Temp C: 23C  
Temp F: 72F  
Environmental Condition: 50%RH  
Substrate: High Density Polyethylene (HDPE)  
Backing: 2 mil PET

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

28 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0  
Dwell Time Units: hr  
Temp C: 23C  
Temp F: 72F  
Environmental Condition: 50%RH  
Substrate: High Density Polyethylene (HDPE)  
Backing: 2 mil PET

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

34 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0



Dwell Time Units: hr  
Temp C: 23C  
Temp F: 72F  
Environmental Condition: 50%RH  
Substrate: Low Density Polyethylene (LDPE)  
Backing: 2 mil PET

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

7.7 N/cm

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0  
Dwell Time Units: hr  
Temp C: 49C  
Temp F: 120F  
Environmental Condition: 50%RH  
Substrate: Stainless Steel

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

70 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0  
Dwell Time Units: hr  
Temp C: 49C  
Temp F: 120F  
Environmental Condition: 50%RH  
Substrate: Stainless Steel

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

3.3 N/cm

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0  
Dwell Time Units: hr  
Temp C: 49C  
Temp F: 120F  
Environmental Condition: 50%RH  
Substrate: Polycarbonate (PC)

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

30 oz/in

View 

Test Method: ASTM D3330


Dwell/Cure Time: 72.0

Dwell Time Units: hr  
Temp C: 49C  
Temp F: 120F  
Environmental Condition: 50%RH  
Substrate: Polycarbonate (PC)

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

5.9 N/cm

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0  
Dwell Time Units: hr  
Temp C: 49C  
Temp F: 120F  
Environmental Condition: 50%RH  
Substrate: Polypropylene (PP)

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

54 oz/in

View 


Test Method: ASTM D3330

Dwell/Cure Time: 72.0  
Dwell Time Units: hr  
Temp C: 49C  
Temp F: 120F  
Environmental Condition: 50%RH  
Substrate: Polypropylene (PP)

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

4.4 N/cm

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0  
Dwell Time Units: hr  
Temp C: 49C  
Temp F: 120F  
Environmental Condition: 50%RH  
Substrate: High Density Polyethylene (HDPE)

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

40 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0  
Dwell Time Units: hr

Temp C: 49C  
Temp F: 120F  
Environmental Condition: 50%RH  
Substrate: High Density Polyethylene (HDPE)

Notes: 12 in/min (300 mm/min)

### 180° Peel Adhesion

1 N/cm

[View](#) 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0  
Dwell Time Units: hr  
Temp C: 49C  
Temp F: 120F  
Environmental Condition: 50%RH  
Substrate: Low Density Polyethylene (LDPE)

Notes: 12 in/min (300 mm/min)

### 180° Peel Adhesion

9 oz/in

[View](#) 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0  
Dwell Time Units: hr  
Temp C: 49C  
Temp F: 120F  
Environmental Condition: 50%RH  
Substrate: Low Density Polyethylene (LDPE)

Notes: 12 in/min (300 mm/min)

### 90° Peel Adhesion

5.5 N/cm

[View](#) 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0  
Dwell Time Units: hr  
Temp C: 49C  
Temp F: 120F  
Environmental Condition: 50%RH  
Substrate: Stainless Steel

Notes: 12 in/min (300 mm/min)

### 90° Peel Adhesion

50 oz/in

[View](#) 

Test Method: ASTM D3330


Dwell/Cure Time: 72.0  
Dwell Time Units: hr  
Temp C: 49C

Temp F: 120F  
Environmental Condition: 50%RH  
Substrate: Stainless Steel

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

1.9 N/cm

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0  
Dwell Time Units: hr  
Temp C: 49C  
Temp F: 120F  
Environmental Condition: 50%RH  
Substrate: Polycarbonate (PC)

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

17 oz/in

View 


Test Method: ASTM D3330

Dwell/Cure Time: 72.0  
Dwell Time Units: hr  
Temp C: 49C  
Temp F: 120F  
Environmental Condition: 50%RH  
Substrate: Polycarbonate (PC)

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

4.6 N/cm

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0  
Dwell Time Units: hr  
Temp C: 49C  
Temp F: 120F  
Environmental Condition: 50%RH  
Substrate: Polypropylene (PP)

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

42 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0  
Dwell Time Units: hr  
Temp C: 49C  
Temp F: 120F


Environmental Condition: 50%RH

Substrate: Polypropylene (PP)

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

5.5 N/cm

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0

Dwell Time Units: hr

Temp C: 49C

Temp F: 120F

Environmental Condition: 50%RH

Substrate: Glass

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

50 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0

Dwell Time Units: hr

Temp C: 49C

Temp F: 120F

Environmental Condition: 50%RH

Substrate: Glass

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

3.2 N/cm

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0

Dwell Time Units: hr

Temp C: 49C

Temp F: 120F

Environmental Condition: 50%RH

Substrate: High Density Polyethylene (HDPE)

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

29 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0

Dwell Time Units: hr

Temp C: 49C

Temp F: 120F

Environmental Condition: 50%RH

Substrate: High Density Polyethylene (HDPE)

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

1.1 N/cm

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0

Dwell Time Units: hr

Temp C: 49C

Temp F: 120F

Environmental Condition: 50%RH

Substrate: Low Density Polyethylene (LDPE)

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

10 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0

Dwell Time Units: hr

Temp C: 49C

Temp F: 120F

Environmental Condition: 50%RH

Substrate: Low Density Polyethylene (LDPE)

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

7.3 N/cm

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0

Dwell Time Units: hr

Temp C: 23C

Temp F: 72F

Environmental Condition: 50%RH

Substrate: Stainless Steel

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

67 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0

Dwell Time Units: hr

Temp C: 23C

Temp F: 72F

Environmental Condition: 50%RH

Substrate: Stainless Steel

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion Stainless Steel

5 N/cm

View 

Notes: 12 in/min (300 mm/min) ASTM D3330 72 hour dwell on Stainless Steel at 23°C (72°F) and 50% RH Backing: 2 mil Polyester

90° Peel Adhesion Glass

5.2 N/cm

View 

Test Method: ASTM D3330

Test Name: 90° Peel Adhesion

Dwell/Cure Time: 72.0

Dwell Time Units: hr

Temp C: 23C

Temp F: 72F

Environmental Condition: 50%RH

Substrate: Glass

Backing: 2 mil PET

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion Glass

48 oz/in

View 

Test Method: ASTM D3330

Test Name: 90° Peel Adhesion

Dwell/Cure Time: 72.0

Dwell Time Units: hr

Temp C: 23C

Temp F: 72F

Environmental Condition: 50%RH

Substrate: Glass

Backing: 2 mil PET

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion Polycarbonate (PC)

5 N/cm

View 

Test Method: ASTM D3330

Test Name: 90° Peel Adhesion

Dwell/Cure Time: 72.0

Dwell Time Units: hr

Temp C: 23C

Temp F: 72F

Environmental Condition: 50%RH

Substrate: Polycarbonate (PC)

Backing: 2 mil PET

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion Polycarbonate (PC)

46 oz/in

View 

Test Method: ASTM D3330

Test Name: 90° Peel Adhesion

Dwell/Cure Time: 72.0

Dwell Time Units: hr

Temp C: 23C

Temp F: 72F

Environmental Condition: 50%RH

Substrate: Polycarbonate (PC)

Backing: 2 mil PET

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion Polypropylene (PP)

38 oz/in

View 

Test Method: ASTM D3330

Test Name: 90° Peel Adhesion

Dwell/Cure Time: 72.0

Dwell Time Units: hr

Temp C: 23C

Temp F: 72F

Environmental Condition: 50%RH

Substrate: Polypropylene (PP)

Backing: 2 mil PET

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

7.7 N/cm

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0

Dwell Time Units: hr

Temp C: 49C

Temp F: 120F

Environmental Condition: 50%RH

Substrate: Glass

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

70 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0

Dwell Time Units: hr

Temp C: 49C

Temp F: 120F

Environmental Condition: 50%RH

Substrate: Glass

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion



7.4 N/cm

View 

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Test Method: ASTM D3330

Dwell/Cure Time: 24.0

Dwell Time Units: hr

Temp C: 32C

Temp F: 90F

Environmental Condition: 90%RH

Substrate: Stainless Steel

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

68 oz/in

View 

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Test Method: ASTM D3330

Dwell/Cure Time: 24.0

Dwell Time Units: hr

Temp C: 32C

Temp F: 90F

Environmental Condition: 90%RH

Substrate: Stainless Steel

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

6 N/cm

View 

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Test Method: ASTM D3330

Dwell/Cure Time: 24.0

Dwell Time Units: hr

Temp C: 32C

Temp F: 90F

Environmental Condition: 90%RH

Substrate: Polycarbonate (PC)

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

55 oz/in

View 

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Test Method: ASTM D3330

Dwell/Cure Time: 24.0

Dwell Time Units: hr

Temp C: 32C

Temp F: 90F

Environmental Condition: 90%RH

Substrate: Polycarbonate (PC)

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

7.2 N/cm

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View 

Test Method: ASTM D3330

Dwell/Cure Time: 24.0

Dwell Time Units: hr

Temp C: 32C

Temp F: 90F


Environmental Condition: 90%RH

Substrate: Polypropylene (PP)

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

66 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 24.0

Dwell Time Units: hr

Temp C: 32C

Temp F: 90F

Environmental Condition: 90%RH

Substrate: Polypropylene (PP)

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

7.3 N/cm

View 

Test Method: ASTM D3330

Dwell/Cure Time: 24.0

Dwell Time Units: hr

Temp C: 32C

Temp F: 90F


Environmental Condition: 90%RH

Substrate: Glass

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

67 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 24.0

Dwell Time Units: hr

Temp C: 32C

Temp F: 90F

Environmental Condition: 90%RH

Substrate: Glass

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

4.9 N/cm

View 

Test Method: ASTM D3330

Dwell/Cure Time: 24.0

Dwell Time Units: hr

Temp C: 32C

Temp F: 90F

Environmental Condition: 90%RH

Substrate: High Density Polyethylene (HDPE)

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

45 oz/in

[View](#) 

Test Method: ASTM D3330

Dwell/Cure Time: 24.0

Dwell Time Units: hr

Temp C: 32C

Temp F: 90F

Environmental Condition: 90%RH

Substrate: High Density Polyethylene (HDPE)

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

3.9 N/cm

[View](#) 

Test Method: ASTM D3330

Dwell/Cure Time: 24.0

Dwell Time Units: hr

Temp C: 32C

Temp F: 90F

Environmental Condition: 90%RH

Substrate: Low Density Polyethylene (LDPE)

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

36 oz/in

[View](#) 

Test Method: ASTM D3330

Dwell/Cure Time: 24.0

Dwell Time Units: hr

Temp C: 32C

Temp F: 90F

Environmental Condition: 90%RH

Substrate: Low Density Polyethylene (LDPE)

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

5.8 N/cm

[View](#) 


Test Method: ASTM D3330

Dwell/Cure Time: 24.0  
Dwell Time Units: hr  
Temp C: 32C  
Temp F: 90F  
Environmental Condition: 90%RH  
Substrate: Stainless Steel

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

53 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 24.0  
Dwell Time Units: hr  
Temp C: 32C  
Temp F: 90F  
Environmental Condition: 90%RH  
Substrate: Stainless Steel

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

3.9 N/cm

View 

Test Method: ASTM D3330

Dwell/Cure Time: 24.0  
Dwell Time Units: hr  
Temp C: 32C  
Temp F: 90F  
Environmental Condition: 90%RH  
Substrate: Polycarbonate (PC)

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

36 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 24.0  
Dwell Time Units: hr  
Temp C: 32C  
Temp F: 90F  
Environmental Condition: 90%RH  
Substrate: Polycarbonate (PC)

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

4.8 N/cm

View 

Test Method: ASTM D3330


Dwell/Cure Time: 24.0

Dwell Time Units: hr  
Temp C: 32C  
Temp F: 90F  
Environmental Condition: 90%RH  
Substrate: Polypropylene (PP)

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

44 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 24.0  
Dwell Time Units: hr  
Temp C: 32C  
Temp F: 90F  
Environmental Condition: 90%RH  
Substrate: Polypropylene (PP)

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

4.8 N/cm

View 


Test Method: ASTM D3330

Dwell/Cure Time: 24.0  
Dwell Time Units: hr  
Temp C: 32C  
Temp F: 90F  
Environmental Condition: 90%RH  
Substrate: Glass

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

44 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 24.0  
Dwell Time Units: hr  
Temp C: 32C  
Temp F: 90F  
Environmental Condition: 90%RH  
Substrate: Glass

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

3.5 N/cm

View 

Test Method: ASTM D3330


Dwell/Cure Time: 24.0  
Dwell Time Units: hr

Temp C: 32C  
Temp F: 90F  
Environmental Condition: 90%RH  
Substrate: High Density Polyethylene (HDPE)

Notes: 12 in/min (300 mm/min)

#### 90° Peel Adhesion

32 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 24.0  
Dwell Time Units: hr  
Temp C: 32C  
Temp F: 90F  
Environmental Condition: 90%RH  
Substrate: High Density Polyethylene (HDPE)

Notes: 12 in/min (300 mm/min)

#### 90° Peel Adhesion

3.3 N/cm

View 


Test Method: ASTM D3330

Dwell/Cure Time: 24.0  
Dwell Time Units: hr  
Temp C: 32C  
Temp F: 90F  
Environmental Condition: 90%RH  
Substrate: Low Density Polyethylene (LDPE)

Notes: 12 in/min (300 mm/min)

#### 90° Peel Adhesion

30 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 24.0  
Dwell Time Units: hr  
Temp C: 32C  
Temp F: 90F  
Environmental Condition: 90%RH  
Substrate: Low Density Polyethylene (LDPE)

Notes: 12 in/min (300 mm/min)

#### Liner Release

5 to 35 g/2 in

View 

Test Method: TLMI

Notes: 180° removal, 300 in/min

#### 180° Peel Adhesion

3.8 N/cm

View 

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Test Method: ASTM D3330

Dwell/Cure Time: 10.0

Dwell Time Units: min

Temp C: 23C

Temp F: 72F


Environmental Condition: 50%RH

Substrate: High Density Polyethylene (HDPE)

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

35 oz/in

View 

---

Test Method: ASTM D3330

Dwell/Cure Time: 10.0

Dwell Time Units: min

Temp C: 23C

Temp F: 72F


Environmental Condition: 50%RH

Substrate: High Density Polyethylene (HDPE)

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

3.5 N/cm

View 

---

Test Method: ASTM D3330

Dwell/Cure Time: 10.0

Dwell Time Units: min

Temp C: 23C

Temp F: 72F

Environmental Condition: 50%RH

Substrate: Low Density Polyethylene (LDPE)

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion

32 oz/in

View 

---

Test Method: ASTM D3330

Dwell/Cure Time: 10.0

Dwell Time Units: min

Temp C: 23C

Temp F: 72F


Environmental Condition: 50%RH

Substrate: Low Density Polyethylene (LDPE)

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

4.6 N/cm

View 

Test Method: ASTM D3330

Dwell/Cure Time: 10.0

Dwell Time Units: min

Temp C: 23C

Temp F: 72F


Environmental Condition: 50%RH

Substrate: Stainless Steel

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

42 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 10.0

Dwell Time Units: min

Temp C: 23C

Temp F: 72F

Environmental Condition: 50%RH

Substrate: Stainless Steel

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

4.8 N/cm

View 

Test Method: ASTM D3330

Dwell/Cure Time: 10.0

Dwell Time Units: min

Temp C: 23C

Temp F: 72F


Environmental Condition: 50%RH

Substrate: Polycarbonate (PC)

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

44 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 10.0

Dwell Time Units: min

Temp C: 23C

Temp F: 72F

Environmental Condition: 50%RH

Substrate: Polycarbonate (PC)

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

4.2 N/cm

View 



Test Method: ASTM D3330

Dwell/Cure Time: 10.0

Dwell Time Units: min

Temp C: 23C

Temp F: 72F

Environmental Condition: 50%RH

Substrate: Polypropylene (PP)

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

38 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 10.0

Dwell Time Units: min

Temp C: 23C

Temp F: 72F

Environmental Condition: 50%RH

Substrate: Polypropylene (PP)

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

4.6 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 10.0

Dwell Time Units: min

Temp C: 23C

Temp F: 72F

Environmental Condition: 50%RH

Substrate: Glass

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

42 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 10.0

Dwell Time Units: min

Temp C: 23C

Temp F: 72F

Environmental Condition: 50%RH

Substrate: Glass

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion

3.1 N/cm

View 


Test Method: ASTM D3330

Dwell/Cure Time: 10.0  
Dwell Time Units: min  
Temp C: 23C  
Temp F: 72F  
Environmental Condition: 50%RH  
Substrate: High Density Polyethylene (HDPE)

Notes: 12 in/min (300 mm/min)

#### 90° Peel Adhesion

28 oz/in

[View](#) 

Test Method: ASTM D3330

Dwell/Cure Time: 10.0  
Dwell Time Units: min  
Temp C: 23C  
Temp F: 72F  
Environmental Condition: 50%RH  
Substrate: High Density Polyethylene (HDPE)

Notes: 12 in/min (300 mm/min)

#### 90° Peel Adhesion

2.7 N/cm

[View](#) 

Test Method: ASTM D3330

Dwell/Cure Time: 10.0  
Dwell Time Units: min  
Temp C: 23C  
Temp F: 72F  
Environmental Condition: 50%RH  
Substrate: Low Density Polyethylene (LDPE)

Notes: 12 in/min (300 mm/min)

#### 90° Peel Adhesion

25 oz/in

[View](#) 

Test Method: ASTM D3330

Dwell/Cure Time: 10.0  
Dwell Time Units: min  
Temp C: 23C  
Temp F: 72F  
Environmental Condition: 50%RH  
Substrate: Low Density Polyethylene (LDPE)

Notes: 12 in/min (300 mm/min)

#### 90° Peel Adhesion

3.7 N/cm

[View](#) 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0

Dwell Time Units: hr  
Temp C: 23C  
Temp F: 72F  
Environmental Condition: 50%RH  
Substrate: Low Density Polyethylene (LDPE)  
Backing: 2 mil PET

Notes: 12 in/min (300 mm/min)

## Available Sizes

Finished labels should be stored in plastic bags.

## Typical Environmental Performance

Property  
Values  
Additional Information

### 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.

-

### Humidity Resistance

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

### Temperature Resistance

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

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

## Printing

Material has a topcoating which is receptive to many inks including UV and conventional ink systems. The converter should verify that their ink systems are compatible with the topcoating on the polyester film by testing beforehand.

The topcoating is also receptive to other forms of printing including hot stamping and dot matrix printing. The converter should verify that the method of printing is compatible with the topcoating by testing beforehand.

The following dot matrix ribbons are recommended for use with this material:

- CGL-79 from Mid City Columbia, 800-462 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.

## Converting

Die cut with steel rule or flatbed dies. The 90# lay-flat liner also allows kiss cutting and back splitting. The converter can cut through the polyester facestock without cutting through the liner. Sheet label materials are not recommended for rotary die cutting and stripping operations.

## Storage and Shelf Life

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

If stored under proper conditions, product retains its performance and properties for 24 months from date of manufacture.

## Industry Specifications

UL Recognized (File MH11410)  
CSA Accepted (File 99316)

## Bottom Matter

3M  
Industrial Adhesives and Tapes Division  
Converter Markets  
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Medina, OH 44256-0428  
800-422-8116 • 877-722-5072 (fax)  
www.3M.com

## Trademarks

3M is a trademark of 3M Company.  
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## Handling/Application Information

### Application Examples

- Barcode labels and rating plates.
- Property identification and asset labeling.
- Warning, instruction, and service labels for durable goods.
- Nameplates for durable goods.
- 3M screen printable sheet polyester label material 7983 is suitable for stamped metal, riveted plates.

### 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.

## References

Property  
Values

3m.com Product Page

[https://www.3m.com/3M/en\\_US/p/d/b5005329210/](https://www.3m.com/3M/en_US/p/d/b5005329210/)

Safety Data Sheet SDS

[https://www.3m.com/3M/en\\_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en\\_US&co=ptn&q=7983](https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=7983)

## Family Group

Link Tags:

- 7980
- 7983

Products	Liner	Facestock Thickness	Adhesive Thickness	Minimum Long	Long Term Temp F	Long Term Temp C	Liner Thickness
				Term Temperature Resistance			

7980	90# Polyctd. bleached kraft sheet polyethylene coated on two sides	0.058 mm	0.02 mm	-40 °C	302 °F	N/A	N/A
7983	N/A	0.083 mm	0.02 mm	N/A	302 °F	149 °C	0.17 mm

## ISO Statement

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

## Information

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