

Technical Data Sheet

3M™ Thermal Transfer Polyester Label Material 7818

Product Description

3M™ Thermal Transfer Polyester Label Material 7818 is a matte silver polyester label materials that offer excellent moisture resistance and thermal stability. This label product utilizes 3M™ Acrylic Adhesive 310 which is a firm adhesive which resists oozing and provides high strength on a variety of surfaces including high surface energy (HSE) plastics and metals.

Product Features

- Topcoated to provide the advantages of matte coating combined with a surface that is smooth enough for thermal transfer printing. Resin ribbons are recommended for optimum durability. 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.
- 3M™ Label Material 7818 55# densified kraft liner assures consistent die cutting.
- UL recognized (File 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	Additional Information
Adhesive Type	310 Acrylic	
Liner	55# Densified kraft	
Liner Thickness	0.081 mm	
Facestock	Silver Polyester Matte TT TC	
Facestock Thickness	0.08 mm	
Adhesive Thickness	0.8 mil	
Adhesive Thickness	0.02 mm	

Facestock Thickness	3.3 mil
Liner Thickness	3.2 mil
Convertability	The firmness of 3M™ Acrylic Adhesive 310 is specifically designed to be compatible with thermal transfer and laser technologies. Adhesive processing issues are not anticipated when proper roll tensions, handling and storage conditions are used. 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	1.00 to 1.25 g/100 in²

Typical Performance Characteristics

Property	Values	Additional Information
90° Peel Adhesion Polypropylene (PP)	2.6 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)		
90° Peel Adhesion Stainless Steel	41 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	2.2 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	20 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	22 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)		
90° Peel Adhesion	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	46 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	3.5 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: Polycarbonate (PC) Notes: 12 in/min (300 mm/min)		
90° Peel Adhesion	32 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	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: Polypropylene (PP) Notes: 12 in/min (300 mm/min)		
90° 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: Polypropylene (PP) 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: Glass 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: Glass Notes: 12 in/min (300 mm/min)		
90° Peel Adhesion	2.2 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	20 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	0.9 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: Low Density Polyethylene (LDPE) Notes: 12 in/min (300 mm/min)		

90° Peel Adhesion	8 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 Stainless Steel	4.5 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	5.1 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	47 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		
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Backing: 2 mil PET

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

90° Peel Adhesion Polycarbonate (PC)	4.7 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)	43 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)	24 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)		
90° Peel Adhesion	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: Stainless Steel Notes: 12 in/min (300 mm/min)		
90° Peel Adhesion	46 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	4.4 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	40 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	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: Polypropylene (PP) Notes: 12 in/min (300 mm/min)		
90° Peel Adhesion	27 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	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: Glass 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: Glass

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

90° Peel Adhesion	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: High Density Polyethylene (HDPE) Notes: 12 in/min (300 mm/min)		
90° Peel Adhesion	27 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	2.6 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	24 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	3.8 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: Stainless Steel Notes: 12 in/min (300 mm/min)		

90° 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: Stainless Steel Notes: 12 in/min (300 mm/min)		

90° Peel Adhesion	4 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	37 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	1.8 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)		

90° Peel Adhesion	16 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	3.7 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	34 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	1.8 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: High Density Polyethylene (HDPE) Notes: 12 in/min (300 mm/min)			
90° Peel Adhesion	16 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	1.3 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	12 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	2.4 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: Low Density Polyethylene (LDPE)
Backing: 2 mil PET

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

180° Peel Adhesion	4.7 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: Stainless Steel

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

180° Peel Adhesion	43 oz/in	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: Stainless Steel

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

180° Peel Adhesion	5.1 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: Polycarbonate (PC)

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

180° Peel Adhesion	47 oz/in	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: Polycarbonate (PC)

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

180° Peel Adhesion	2 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: Polypropylene (PP)

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

180° Peel Adhesion	18 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	5.7 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: Glass Notes: 12 in/min (300 mm/min)		
180° Peel Adhesion	52 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	5.7 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	52 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	2 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	18 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	7.4 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: Glass Notes: 12 in/min (300 mm/min)		
180° Peel Adhesion	68 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	3.6 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: High Density Polyethylene (HDPE) Notes: 12 in/min (300 mm/min)		
180° Peel Adhesion	33 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	3.5 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	32 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)			
180° Peel Adhesion	6.6 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: Stainless Steel Notes: 12 in/min (300 mm/min)			
180° Peel Adhesion	60 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	4.5 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: Polycarbonate (PC) Notes: 12 in/min (300 mm/min)			
180° Peel Adhesion	41 oz/in	View	^

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	3.8 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	35 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	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: High Density Polyethylene (HDPE) 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: High Density Polyethylene (HDPE) Notes: 12 in/min (300 mm/min)		
180° Peel Adhesion	0.4 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: Low Density Polyethylene (LDPE) Notes: 12 in/min (300 mm/min)		

180° Peel Adhesion	5 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	5.6 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: Stainless Steel Notes: 12 in/min (300 mm/min)		
180° Peel Adhesion	51 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)		
180° Peel Adhesion	7.4 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: Glass Notes: 12 in/min (300 mm/min)		
180° Peel Adhesion	68 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	8.1 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)

180° Peel Adhesion	74 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)		
180° Peel Adhesion	6.8 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: Polycarbonate (PC) Notes: 12 in/min (300 mm/min)		
180° Peel Adhesion	62 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)		
180° Peel Adhesion	4.2 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)		
180° Peel Adhesion	38 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	7.2 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	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: Glass Notes: 12 in/min (300 mm/min)		
180° Peel Adhesion	3.8 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: 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: 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	2.2 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	20 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)

180° Peel Adhesion	2.6 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: High Density Polyethylene (HDPE)			
Notes: 12 in/min (300 mm/min)			
180° Peel Adhesion	24 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	2.2 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: Low Density Polyethylene (LDPE)			
Notes: 12 in/min (300 mm/min)			
180° Peel Adhesion	20 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)			
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	300 °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
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Note	Calipers are nominal values

Liner Release	5 to 50 g/2 in	View 
Test Method: TLMI		
Notes: 180° removal, 300 in/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	When applied to stainless steel. Other substrates should be tested per application. 300°F (149°C) for 24 hours: no significant visual change, 0.7% MD shrinkage, 0.8% CD shrinkage -40°F (-40°C) for 10 days: no significant visual change
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Accelerated Aging	0.039 N/cm	View 
Test Method: ASTM D3611		
Dwell/Cure Time: 96.0 Dwell Time Units: hr		

Temp C: 65C
Temp F: 150F
Environmental Condition: 80%RH

Notes: 180° Removal of Liner from Facestock at 90 in/min

Accelerated Aging	11 g/in	View	^
Test Method: ASTM D3611			
Dwell/Cure Time: 96.0 Dwell Time Units: hr Temp C: 65C Temp F: 150F Environmental Condition: 80%RH			
Notes: 180° Removal of Liner from Facestock at 90 in/min			

Accelerated Aging	0.189 N/cm	View	^
Test Method: ASTM D3611			
Dwell/Cure Time: 96.0 Dwell Time Units: hr Temp C: 65C Temp F: 150F Environmental Condition: 80%RH Substrate: Stainless Steel			
Notes: 12 in/min (300 mm/min)			

Accelerated Aging	49 g/in	View	^
Test Method: ASTM D3611			
Dwell/Cure Time: 96.0 Dwell Time Units: hr Temp C: 65C Temp F: 150F Environmental Condition: 80%RH Substrate: Stainless Steel			
Notes: 12 in/min (300 mm/min)			

Printing

Facestock is topcoated for improved ink receptivity and is designed for thermal transfer printing. It is printable by all standard roll processing methods including flexography, hot stamp, letterpress, and screen printing.

Thermal Transfer Printing

Printer: UL no longer requires evaluation and listing of specific printers.

Ink Ribbon/UL Recognized Components

Advent: 301 Black; 303 Black; 501 Black; 501 Red; 501 Blue; 501 Green

Aarmor: AXR-7; AXR-7+; AXR-600

Astromed: R5

CP: 5440 Red; 5640 Blue; 5940 Black

Dasco: DR-74; DR-84

Great Ribbon: SDR; GPR

ICS: ICS-CC-2000; ICS-CC-4099.1

limak: SH-36; SP-330; PrimeMark

Intermec: 051864-3; 053258-2; 054048-4; 054195-2

Japan Pulp and Paper: JP Resin 1; JP Resin 2 Blue; JP Resin 2 Red; JP Resin 2 Green

Kurz: K501

Markem: 716 (suitable for indoor use only)

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

NCR: Matrix Resin; Matrix (suitable for indoor use only; PaceSetter; Promark II; Ultra V

Pelikan: T016

Ricoh: B110A; B110C; B110CS

Sato: Premier 1

Sony: 4050; 4051; 4070; 4072; 4075; 4085; 5070; Signature Series Resin; Signature Series Wax

ULI: HRO3; HRO4

Zebra: 5095; 5097; 5099; 5100; 5175; 5555

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 CT-1000 laser printer

Converting

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.

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 PGJ12.MH16411, Printing Materials - Component, ANSI/UL 969

UL Recognized, File PGJ18.MH16411, Printing Materials Certified for Canada - Component, CSA-C22.2 No. 0.15

CSA Group Certified, File 99316, Class 7922, Adhesive-Type Labels - Label Stock, CSA-C22.2 No. 0.15-01

CSA Group Certified, File 99316, Class 7924, Adhesive-Type Labels - Electronic Printing Technologies, CSA-C22.2 No. 0.15-01

Bottom Matter

3M

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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 and durable goods

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/b5005329019/

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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