

3M™ Double Coated Tape 444

Last Revision Date: May, 2022



Product Description

3M™ Double Coated Tapes with 3M™ Adhesive 300 feature a thin polyester film for dimensional stability and improved handling with ease of die cutting and laminating. The high tack adhesive provides relatively high initial adhesion and good shear holding power to a variety of surfaces. The carrier also provides easier handling during slitting and die cutting.

Product Features

3M™ Adhesive 300 is a medium-firm acrylic adhesive system featuring both high initial adhesion and good high temperature holding power.


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	Acrylic	
Adhesive Type	300	View
Test Name: Faceside		
Notes: Faceside adhesive is on the interior of the roll, exposed when unwound and liner removed.		
Adhesive Type	300	View
Test Name: Backside		
Notes: Backside adhesive is on the exterior of the roll, exposed when liner is removed.		
Adhesive Carrier	Clear PET (Polyester)	
Liner	55# Densified Kraft	
Liner Thickness	0.076 mm	
Liner Color	White	View


Test Name: Primary

Adhesive Thickness	0.036 mm	View 
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Test Name: Backside

Notes: The caliper listed is based on a calculation from manufacturing controlled adhesive coat weight. While past data pages have listed nominal thicknesses of 1 and 2 mils, the coat weight (and theoretical caliper) has not changed.


Carrier Thickness	0.013 mm	
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Total Tape Thickness	3.9 mil	View 
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Test Method: ASTM D3652


Total Tape Thickness	0.1 mm	View 
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Test Method: ASTM D3652

Adhesive Thickness	1.4 mil	View 
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Test Name: Backside

Notes: Backside adhesive is on the exterior of the roll, exposed when liner is removed.

Adhesive Thickness	0.051 mm	View 
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Test Name: Faceside

Notes: Faceside adhesive is on the interior of the roll, exposed when unwound and liner removed.

Adhesive Thickness	2 mil	View 
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Test Name: Faceside

Notes: Faceside adhesive is on the interior of the roll, exposed when unwound and liner removed.

Carrier Thickness	0.5 mil	
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Liner Print	None	
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Liner Thickness	3 mil	
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Typical Performance Characteristics

Property	Values	Additional Information
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90° Peel Adhesion	3.5 N/cm	View 
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Test Method: ASTM D3330

Dwell/Cure Time: 15.0
 Dwell Time Units: min
 Temp C: 23C
 Temp F: 72F
 Environmental Condition: 50%RH
 Substrate: Stainless Steel
 Backing: 2 mil Aluminum Foil

90° Peel Adhesion

32 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 15.0
 Dwell Time Units: min
 Temp C: 23C
 Temp F: 72F
 Environmental Condition: 50%RH
 Substrate: Stainless Steel
 Backing: 2 mil Aluminum Foil

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

90° Peel Adhesion

6.6 N/cm

View 


Test Method: ASTM D3330

Backing: 2 mil Aluminum Foil

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

90° 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: Stainless Steel
 Backing: 2 mil Aluminum Foil

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

90° Peel Adhesion

9.4 N/cm

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0
 Dwell Time Units: hr
 Temp C: 70C
 Temp F: 158F
 Environmental Condition: 50%RH
 Substrate: Stainless Steel
 Backing: 2 mil Aluminum Foil

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

90° Peel Adhesion

86 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72.0
 Dwell Time Units: hr
 Temp C: 70C
 Temp F: 158F
 Environmental Condition: 50%RH
 Substrate: Stainless Steel
 Backing: 2 mil Aluminum Foil

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

90° Peel Adhesion

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: ABS
Backing: 2 mil Aluminum Foil

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

90° Peel Adhesion

55 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: ABS
Backing: 2 mil Aluminum Foil

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

90° Peel Adhesion

4.7 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: Polypropylene (PP)
Backing: 2 mil Aluminum Foil

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

90° Peel Adhesion

43 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)
Backing: 2 mil Aluminum Foil

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

90° Peel Adhesion

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)
Backing: 2 mil Aluminum Foil

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

90° Peel Adhesion





64 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)
 Backing: 2 mil Aluminum Foil

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

90° Peel Adhesion	6.6 N/cm	View 
<p>Test Method: ASTM D3330</p> <p>Dwell/Cure Time: 72.0 Dwell Time Units: hr Temp C: 23C Temp F: 72F Environmental Condition: 50%RH Substrate: Polyester (PET) Backing: Aluminum Foil</p>		
90° Peel Adhesion	61 oz/in	View 
<p>Test Method: ASTM D3330</p> <p>Dwell/Cure Time: 72.0 Dwell Time Units: hr Temp C: 23C Temp F: 72F Environmental Condition: 50%RH Substrate: Polyester (PET) Backing: Aluminum Foil</p>		
Short Term Temperature Resistance	250 °F	
Short Term Temperature Resistance	121 °C	
Long Term Temperature Resistance	82 °C	
Long Term Temperature Resistance	180 °F	
Static Shear	813 min	View 
<p>Test Method: ASTM D3654</p> <p>Notes: 0.5 in² sample size</p>		
Static Shear	3 min	View 
<p>Test Method: ASTM D3654</p> <p>Notes: 0.5 in² sample size</p>		
Solvent Resistance	Medium-Low	
UV Resistance	Medium	

180° Peel Adhesion

12.5 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: Stainless Steel

Backing: Aluminum Foil

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

180° Peel Adhesion

115 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

Backing: Aluminum Foil

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

Available Sizes

Property	Values	Additional Information
Note	Subject to Minimum Order Requirements	
Standard Roll Length	33 m	
Standard Roll Length	36 yd	
Maximum Length	165 m	View 
Width: 1/4in - 1/2in		
Maximum Length	180 yd	View 
Width: 1/4in - 1/2in		
Maximum Length	329 m	View 
Width: 1/2 in to 48 in		
Maximum Length	360 yd	View 
Width: 1/2 in to 48 in		
Minimum Available Width	6.35 mm	

Minimum Available Width	1/4 in
Maximum Available Width	1219 mm
Maximum Available Width	48 in
Normal Slitting Tolerance	± 0.8 mm
Normal Slitting Tolerance	± 1/32 in
Core Size (ID)	76.2 mm
Core Size (ID)	3 in

Liner Configure Guide

General purpose steel rule die cutting 58# PCK (Polycoated Kraft)
 Steel rule cutting many nameplates on common sheet 86# PCK
 Kiss cutting, steel rule 86# PCK
 Rotary die-cutting Densified Kraft, PET
 Selective die-cutting (cut adhesive before laminate) Double-lined
 Thermoforming HDPE (High density Polyethylene)
 Part inspection HDPE, PET
 Embossed metal parts White PP (polypropylene), HDPE
 Metal parts (punch press) PET

Storage and Shelf Life

Store in original carton at 70°F (21°C) and 50% relative humidity.
 If stored under proper conditions, product retains its performance and properties for 24 months from date of manufacture.

Bottom Matter

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Handling/Application Information

Application Examples

- Medical/non-medical diagnostic test strips
- Plastic film lamination/bonding
- Splicing
- Foam lamination
- Cell phone lens attachment
- Gasket attachment in hand held devices and laptops

Application Techniques

Bond strength is dependent upon the amount of adhesive-to-surface contact developed. Firm application pressure helps develop better adhesive contact and improves bond strength.

To obtain optimum adhesion, the bonding surfaces must be clean, dry and well unified. Some typical surface cleaning solvents are isopropyl alcohol or heptane.*

Ideal tape application temperature range is 70°F to 100°F (21°C to 38°C). Initial tape application to surfaces at temperatures below 50°F (10°C) is not recommended because the adhesive becomes too firm to adhere readily. However, once properly applied, low temperature holding is generally satisfactory.

*Note: Carefully read and follow the manufacturer's precautions and directions for use when working with solvents.

Application Equipment

To apply adhesives in a wide web format, lamination equipment is required to ensure acceptable quality. To learn more about working with pressure-sensitive adhesives please refer to technical bulletin, Lamination Techniques for Converters of Laminating Adhesives (70-0704-1430-8). For additional dispenser information, contact your local 3M sales representative, or the toll free 3M sales assistance number at 1-800-362-3550.

References

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/p/d/b40070349/
Safety Data Sheet SDS	https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=444

Family Group

Link Tags:

- [444](#)
- [444PC](#)
- [9009](#)
- [9019](#)
- [9039](#)

Products	Adhesive Type	Adhesive Carrier	Liner	Liner Thickness	Liner Color	Adhesive Thickness	Carrier Thickness	Total Tape Thickness	Short Term Temperature Resistance	Long Term Temperature Resistance
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444	300	Clear PET (Polyester)	55# Densified Kraft	0.076 mm	White	0.051 mm	0.013 mm	0.1 mm	121 °C	180 °F
9019	300	Clear PET (Polyester)	55# Densified Kraft	0.076 mm	White	0.0084 mm	0.013 mm	0.03 mm	121 °C	158 °F
444PC	300	Clear PET (Polyester)	58# Polycoated Kraft	0.1 mm	Tan	0.051 mm	0.013 mm	0.1 mm	121 °C	180 °F
9039	300	PET (Polyester)	55# Densified Kraft	0.076 mm	White	0.038 mm	0.013 mm	0.09 mm	121 °C	158 °F
9009	300	Clear PET (Polyester)	55# Densified Kraft	0.076 mm	White	0.02 mm	0.013 mm	0.05 mm	121 °C	158 °F

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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