



3M™ High Strength Double Coated Tape 93015LE

Last Revision Date: October, 2017

Product Description

Finite Element Analysis (FEA) data is available for this product at: [3m.com/FEA](https://www.3m.com/FEA)

3M™ Double Coated Tapes with 3M™ High Strength Acrylic Adhesive 300LSE provides a high bond strength to most surfaces, including many low surface energy plastics such as polypropylene and powder coated paints. The acrylic adhesive also provides excellent adhesion to surfaces contaminated with oil typically used with machine parts.



Product Features








- This tape has a film carrier which can add dimensional stability to foams and other substrates and also makes it easier to handle the tape during slitting and die-cutting.
- The bond strength of 3M™ Acrylic Adhesive 300LSE increases as a function of time and temperature, and has very high initial adhesion.

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	300LSE	View 
Test Name: Faceside		
Notes: Faceside adhesive is on the interior of the roll, exposed when unwound and liner removed.		
Adhesive Type	300LSE	View 
Test Name: Backside		
Notes: Backside adhesive is on the exterior of the roll, exposed when liner is removed.		
Adhesive Carrier	Clear Polyester	
Liner	58# Polycoated Kraft	
Liner Thickness	0.11 mm	

Liner Color	Tan	View 
Test Name: Primary		
Adhesive Thickness	0.069 mm	View 
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	0.012 mm	
Test Name: Backside		
Total Tape Thickness	5.9 mil (0.15 mm)	View 
Test Method: ASTM D3652		
Total Tape Thickness	0.15 mm	View 
Test Method: ASTM D3652		
Adhesive Thickness	2.7 mil	View 
Test Name: Backside		
Notes: Backside adhesive is on the exterior of the roll, exposed when liner is removed.		
Adhesive Thickness	0.069 mm (2.7 mil)	View 
Test Name: Faceside		
Notes: Faceside adhesive is on the interior of the roll, exposed when unwound and liner removed.		
Adhesive Thickness	2.7 mil	View 
Test Name: Faceside		
Notes: Faceside adhesive is on the interior of the roll, exposed when unwound and liner removed.		
Carrier Thickness	0.5 mil	
Liner Print	300LSE	
Liner Thickness	4.2 mil	

Typical Performance Characteristics

Property	Values	Additional Information
Short Term Temperature Resistance	300 °F (149 °C)	

View 

Test Condition: Short Term (minutes, hour)

Short Term Temperature Resistance

149 °C

View 

Test Condition: Short Term (minutes, hour)

Long Term Temperature Resistance


93 °C (200 °F)

View 

Test Condition: Long Term (day, weeks)

Long Term Temperature Resistance

200 °F

View 

Test Condition: Long Term (day, weeks)

Static Shear

>10,000 min

View 

Test Method: ASTM D3654

Test Condition: 1000 g @ Room Temperature

Notes: 1 in² sample size

Static Shear

>10,000 min

View 

Test Method: ASTM D3654

Test Condition: 500 g @ 70°C (158°F)

Notes: 1 in² sample size

180° Peel Adhesion

10.9 N/cm (100 oz/in)

View 

Test Method: ASTM D3330

Dwell/Cure Time: 15

Dwell Time Units: min

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

100 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 15

Dwell Time Units: min

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

14.2 N/cm (130 oz/in)

View 

Test Method: ASTM D3330


Dwell/Cure Time: 15

Dwell Time Units: min
 Temp C: 23C
 Temp F: 72F
 Environmental Condition: 50%RH
 Substrate: Polycarbonate (PC)
 Backing: Aluminum Foil

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

180° Peel Adhesion

130 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 15
 Dwell Time Units: min
 Temp C: 23C
 Temp F: 72F
 Environmental Condition: 50%RH
 Substrate: Polycarbonate (PC)
 Backing: Aluminum Foil

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

180° Peel Adhesion

9.3 N/cm (85 oz/in)

View 

Test Method: ASTM D3330

Dwell/Cure Time: 15
 Dwell Time Units: min
 Temp C: 23C
 Temp F: 72F
 Environmental Condition: 50%RH
 Substrate: ABS
 Backing: Aluminum Foil

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

180° Peel Adhesion

85 oz/in

View 

Test Method: ASTM D3330

Dwell/Cure Time: 15
 Dwell Time Units: min
 Temp C: 23C
 Temp F: 72F
 Environmental Condition: 50%RH
 Substrate: ABS
 Backing: Aluminum Foil

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

180° Peel Adhesion

11.5 N/cm (105 oz/in)

View 

Test Method: ASTM D3330

Dwell/Cure Time: 15
 Dwell Time Units: min
 Temp C: 23C
 Temp F: 72F
 Environmental Condition: 50%RH
 Substrate: Polypropylene (PP)
 Backing: Aluminum Foil

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

180° Peel Adhesion

105 oz/in

View 

Test Method: ASTM D3330


Dwell/Cure Time: 15
 Dwell Time Units: min
 Temp C: 23C
 Temp F: 72F

Environmental Condition: 50%RH
 Substrate: Polypropylene (PP)
 Backing: Aluminum Foil

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

180° Peel Adhesion

13.7 N/cm (125 oz/in)

View 

Test Method: ASTM D3330

Dwell/Cure Time: 72
 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

125 oz/in

View 


Test Method: ASTM D3330

Dwell/Cure Time: 72
 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

18.1 N/cm (165 oz/in)

View 

Test Method: ASTM D3330

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

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

180° Peel Adhesion

165 oz/in

View 

Test Method: ASTM D3330

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

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

180° Peel Adhesion

13.7 N/cm (125 oz/in)


View 

Test Method: ASTM D3330

Dwell/Cure Time: 72
 Dwell Time Units: hr
 Temp C: 23C
 Temp F: 72F
 Environmental Condition: 50%RH
 Substrate: ABS
 Backing: Aluminum Foil





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

180° Peel Adhesion	125 oz/in	View 
Test Method: ASTM D3330		
Dwell/Cure Time: 72		
Dwell Time Units: hr		
Temp C: 23C		
Temp F: 72F		
Environmental Condition: 50%RH		
Substrate: ABS		
Backing: Aluminum Foil		
Notes: 12 in/min (300 mm/min)		


180° Peel Adhesion	14.8 N/cm (135 oz/in)	View 
Test Method: ASTM D3330		
Dwell/Cure Time: 72		
Dwell Time Units: hr		
Temp C: 23C		
Temp F: 72F		
Environmental Condition: 50%RH		
Substrate: Polypropylene (PP)		
Backing: Aluminum Foil		
Notes: 12 in/min (300 mm/min)		

180° Peel Adhesion	135 oz/in	View 
Test Method: ASTM D3330		
Dwell/Cure Time: 72		
Dwell Time Units: hr		
Temp C: 23C		
Temp F: 72F		
Environmental Condition: 50%RH		
Substrate: Polypropylene (PP)		
Backing: Aluminum Foil		
Notes: 12 in/min (300 mm/min)		

Available Sizes

Property	Values	Additional Information
Note	Subject to Minimum Order Requirements	
Maximum Length	164 m (180 yd)	View 
Width: 1/2 in to 63/64 in		
Maximum Length	180 yd	View 
Width: 1/2 in to 63/64 in		
Maximum Length	329 m (360 yd)	View 
Width: 1 in to 3 in		
Maximum Length	360 yd	View 


Width: 1 in to 3 in

Maximum Length	329 m (360 yd)	View 
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Width: 3 in to 48 in

Maximum Length	360 yd	View 
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Width: 3 in to 48 in

Maximum Length	329 m (360 yd)	View 
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Width: 48 in to 54 in

Maximum Length	360 yd	View 
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Width: 48 in to 54 in

Normal Slitting Tolerance	± 0.8 mm ($\pm 1/32$ in)
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Normal Slitting Tolerance	$\pm 1/32$ in
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Core Size (ID)	76.2 mm (3 in)
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Core Size (ID)	3 in
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Electrical and Thermal Properties

Property	Values	Additional Information
Breakdown Voltage	6900 V	

Typical Environmental Performance

Humidity Resistance: High humidity has minimal effect on adhesive performance. No significant reduction in bond strength is observed after exposure for 7 days at 90°F (32°C) and 90% relative humidity.

UV Resistance: When properly applied, nameplates and decorative trim parts are not adversely affected by exposure.

Water Resistance: Immersion in water has no appreciable effect on the bond strength. After 100 hours at room temperature, the high bond strength is maintained.

Temperature Cycling Resistance: High bond strength is maintained after cycling four times through:

4 hours at 158°F (70°C)

4 hours at -20°F (-29°C)

4 hours at 73°F (22°C)

Chemical Resistance: When properly applied, nameplate and decorative trim parts will hold securely after exposure to numerous chemicals including oil, mild acids, and alkalis.

Storage and Shelf Life

Store in original cartons at 70°F (21°C) and 50% relative humidity.

If stored under proper conditions, these products retain their performance and properties for 24 months from date of manufacture.

Trademarks

3M is a trademark of 3M Company.

Handling/Application Information

Application Examples

- Foam to powder coated painted surfaces.
- Low surface energy plastic adhesion.

Application Techniques

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

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

References

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/company-us/all-3m-products/~//3M-Double-Coated-Tape-93015LE/?N=5002385+3293240963&rt=rud
Safety Data Sheet SDS	https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=93015LE

ISO Statement

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