



Technical Data Sheet

3M™ High Strength Double Coated Tape 93015LE

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 Color	Tan	View 
Test Name: Primary		
Liner	58# Polycoated Kraft Paper (PCK)	

Liner Thickness	0.11 mm	
Liner Print	300LSE	
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	
Total Tape Thickness (mil)	5.9 mil	View ^
Test Method: ASTM D3652		
Total Tape Thickness (mm)	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	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 Thickness	4.2 mil	

Typical Performance Characteristics

Property	Values	Additional Information
180° Peel Adhesion	10.9 N/cm	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: Aluminum Foil

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

180° Peel Adhesion	100 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: Aluminum Foil Notes: 12 in/min (300 mm/min)		
180° Peel Adhesion	14.2 N/cm	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: 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: 15.0 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	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: 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: 15.0		

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	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: 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: 15.0 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	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	125 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)		
180° Peel Adhesion	18.1 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: 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: 72.0 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	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: Aluminum Foil Notes: 12 in/min (300 mm/min)		
180° Peel Adhesion	125 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: Aluminum Foil Notes: 12 in/min (300 mm/min)		
180° Peel Adhesion	14.8 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: 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: 72.0 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)

Short Term Temperature Resistance	300 °F	View ^
Test Condition: Short Term (minutes, hour)		
Short Term Temperature Resistance	149 °C	View ^
Test Condition: Short Term (minutes, hour)		
Long Term Temp C	93 °C	View ^
Test Condition: Long Term (day, weeks)		
Long Term Temp F	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		

Available Sizes

Property	Values	Additional Information
Note	Subject to Minimum Order Requirements	
Maximum Length	164 m	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	View ^
Width: 1 in to 3 in		
Maximum Length	360 yd	View ^

Width: 1 in to 3 in

Maximum Length	329 m	View	^
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Width: 3 in to 48 in			
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Maximum Length	360 yd	View	^
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Width: 3 in to 48 in			
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Maximum Length	329 m	View	^
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Width: 48 in to 54 in			
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Maximum Length	360 yd	View	^
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Width: 48 in to 54 in			
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Normal Slitting Tolerance	± 0.8 mm		
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Normal Slitting Tolerance	± 1/32 in		
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Core Size (ID)	76.2 mm		
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Core Size (ID)	3 in		
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Electrical and Thermal Properties

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Property	Values	Additional Information	
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Breakdown Voltage	6900 V		
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Typical Environmental Performance

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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

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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.

Automotive Disclaimer

Select Automotive Applications: This product is an industrial product and has not been designed or tested for use in certain automotive applications, such as automotive electric powertrain battery or high voltage applications, which may require the product to be manufactured in a IATF certified facility, meet a Ppk of 1.33 for all properties, undergo an automotive production part approval process (PPAP), or fully adhere to automotive design or quality system requirements (e.g., IATF 16949 or VDA 6.3). Customer assumes all responsibility and risk if customer chooses to use this product in these applications.

Bottom Matter

3M
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Trademarks

3M is a trademark of 3M Company.

Industry Specifications

This product might be suitable for use in indirect food contact applications. Please see the applicable Regulatory Data Sheet for more information relating to FDA compliance.

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/p/d/b40070397/
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

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

Information

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