

March, 2018

3M™ Double Coated Tape 9495LE

Product Description

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

3M™ 9495LE is a 170µm Double Coated Polyester Tape featuring 3M™ Type 300LSE Acrylic Adhesive. Performance features include superior adhesion to Polypropylene, great resistance to consumer chemicals and excellent holding power. 3M type 300LSE acrylic adhesive has a long history of successfully bonding a wide variety of similar and dissimilar materials such as metals, most plastics, glass, papers, and painted surfaces.

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™ Laminating 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		Method	Test Name
Total Tape Thickness	6.7 mil	0.17 mm	ASTM D3652	
Carrier Thickness	0.5 mil	0.013 mm		
Liner Print	300LSE			
Liner Thickness	4.2 mil	0.11 mm		
Adhesive Type	Acrylic			
Adhesive Carrier	Clear Polyester			
Liner	58# Polycoated Kraft			
Liner Color	Tan printed with "3M 300LSE"			Primary

Adhesive Thickness		Test Name	Notes
3.4 mil		Backside	Backside adhesive is on the exterior of the roll, exposed when liner is removed.
0.071 mm	2.8 mil	Faceside	Faceside adhesive is on the interior of the roll, exposed when unwound and liner removed.
0.086 mm		Backside	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.

Property: Adhesive Thickness

Typical Performance Characteristics

Property	Values		Test Condition	Method	Notes
Short Term Temperature Resistance	300 °F	149 °C	Short Term (minutes, hour)		

Table continued on next page

Typical Performance Characteristics (continued)

Property	Values		Test Condition	Method	Notes
Long Term Temperature Resistance	200 °F	93 °C	Long Term (day, weeks)		
Static Shear	>10,000 min		1000 g @ Room Temperature	ASTM D3654	0.5 in ² sample size
Static Shear	>10,000 min		500 g @ 70°C (158°F)	ASTM D3654	0.5 in ² sample size
Solvent Resistance	Very Good				

180° Peel Adhesion		Dwell/Cure Time	Dwell Time Units	Substrate
6.6 N/cm	60 oz/in	15	min	Stainless Steel
9.9 N/cm	90 oz/in	72	hr	Stainless Steel
14.2 N/cm	130 oz/in	72	hr	Polycarbonate (PC)
12 N/cm	110 oz/in	72	hr	ABS
13.7 N/cm	125 oz/in	72	hr	Polypropylene (PP)
10.4 N/cm	95 oz/in	72	hr	Glass

Property: 180° Peel Adhesion
 Method: ASTM D3330
 Temp C: 23C
 Temp F: 72F
 Environmental Condition: 50%RH
 Backing: Aluminum Foil
 notes: 12 in/min (300 mm/min)

Electrical and Thermal Properties

Breakdown Voltage: 7100 V

Typical Environmental Performance

Environmental Resistance

Humidity Resistance: High humidity has minimal effect on adhesive performance. No significant reduction in bond strength is observed after exposure for 72hrs at 150°F (65°C) and 90% relative humidity.

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

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 six times through:

- 8 hours at -4°F (-20°C)
- 8 hours at 150°F (65°C) /90% RH

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

Handling/Application Information

Application Examples

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

Application Techniques

Bond strength is dependent upon the amount of adhesive-to-surface contact developed. Firm application pressure and moderate heat, from 100°F (38°C) to 130°F (54°C), will assist the adhesive in developing intimate contact with the bonding surface.

To obtain optimum adhesion, the bonding surfaces must be clean, dry and well unified. Typical cleaning solvents are methyl ethyl ketone for metals or isopropyl alcohol for plastics. Carefully read and follow manufacturer's precautions and directions for use when using cleaning 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.

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 1-800-251-8634.

Storage and Shelf Life

Store in original cartons 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.

Trademarks

3M is a trademark of 3M Company.

References

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/p/d/b40060169/
Safety Data Sheet SDS	https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=9495LE

Family Group

	9474LE	9495LE
Adhesive Thickness (mm) Test Name: Faceside	0.071	0.071
Short Term Temperature Resistance (°C) Test Condition: Short Term (minutes, hour)	148.8889	148.8889
Liner Color Test Name: Primary	Tan	Tan printed with "3M 300LSE"

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Family Group (continued)

	9474LE	9495LE
Long Term Temperature Resistance (°F) Test Condition: Long Term (day, weeks)	200	200
Adhesive Thickness (mm) Test Name: Backside	0.086	0.086
Long Term Temperature Resistance (°C) Test Condition: Long Term (day, weeks)	93.33333	93.33333
Total Tape Thickness (mm)	0.17	0.17
Carrier Thickness (mm)	0.013	0.013
Adhesive Type	Acrylic	Acrylic
Adhesive Carrier	Clear Polyester	Clear Polyester
Liner	PCK	58# Polycoated Kraft
Liner Thickness (mm)	0.11	0.11

For Additional Information

To request additional product information or to arrange for sales assistance, call toll free 1-800-251-8634. Address correspondence to: 3M, Electronics Markets Materials Division, 3M Center, Building 225-3S-06, St. Paul, MN 55144- 1000. Our fax number is 651-778-4244 or 1-877-369-2923. In Canada, phone: 1-800-364-3577. In Puerto Rico, phone: 1-787-750-3000. In Mexico, phone: 52-70-04-00.

Recognition/Certification

MSDS: 3M has not prepared a MSDS for this product which is not subject to the MSDS requirements of the Occupational Safety and Health Administration's Hazard Communication Standard, 29 C.F.R. 1910.1200(b)(6)(v). When used under reasonable conditions or in accordance with the 3M directions for use, the product should not present a health and safety hazard. However, use or processing of the product in a manner not in accordance with the directions for use may affect its performance and present potential health and safety hazards.

TSCA: This product is defined as an article under the Toxic Substances Control Act and therefore, it is exempt from inventory listing requirements.

RoHs Complaint/REACH Compliant: This product complies with the European Union's "Restriction of Hazardous Substances" (RoHs) initiative and with European REACH regulations 2002/95/EC and 2005/618/EC.

Information

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