

March, 2018

3M™ Double Coated Tape 9495LE

Product Description

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		Notes
Faceside Adhesive Thickness	0.071 mm	2.8 mil	Faceside adhesive is on the interior of the roll, exposed when unwound and liner removed.
Backside Adhesive Thickness	0.086 mm	3.4 mil	Backside adhesive is on the exterior of the roll, exposed when liner is removed.
Carrier Thickness	0.013 mm	0.5 mil	
Adhesive Carrier	Clear Polyester		
Adhesive Thickness	0.17 mm	6.7 mil	The thickness listed is based on a calculation from manufacturing controlled adhesive coat weights using a density of 1.012 g/cc. While past data pages have listed nominal thicknesses, the coat weight (and theoretical caliper) has not changed.
Liner	58# Polycoated Kraft		
Liner Thickness	0.11 mm	4.2 mil	The thickness listed is based on a calculation from manufacturing controlled adhesive coat weights using a density of 1.012 g/cc. While past data pages have listed nominal thicknesses, the coat weight (and theoretical caliper) has not changed.
Liner Color	Tan printed with "3M 300LSE"		

Typical Performance Characteristics

Relative High Temperature Operating Ranges		Test Condition
149 °C	300 °F	Short Term (minutes, hours)
93 °C	200 °F	Long Term (days, weeks)

Property: Relative High Temperature Operating Ranges

Typical Performance Characteristics (continued)

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

Property: 180° Peel Adhesion
Method: ASTM D3330
Backing: Aluminum Foil

Property	Values	Method	Test Condition	Notes
Static Shear	>10,000 min	ASTM D3654	1000 g @ Room Temperature	0.5 in² sample size
Static Shear	>10,000 min	ASTM D3654	500 g @ 70°C (158°F)	0.5 in² sample size
Solvent Resistance	Very Good			

Electrical and Thermal Properties

Property	Values
Breakdown Voltage	7100 V
Dielectric Strength	1100 V/mil

Environmental Performance

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 Ideas

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

Handling/Application Information (continued)

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.

Information

Technical Information: The technical information, guidance, and other statements contained in this document or otherwise provided by 3M are based upon records, tests, or experience that 3M believes to be reliable, but the accuracy, completeness, and representative nature of such information is not guaranteed. Such information is intended for people with knowledge and technical skills sufficient to assess and apply their own informed judgment to the information. No license under any 3M or third party intellectual property rights is granted or implied with this information.

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Trademarks

3M is a trademark of 3M Company.

References

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
Relative High Temperature Operating Ranges (°C) Test Condition: Short Term (minutes, hours)	149	149
Relative High Temperature Operating Ranges (°C) Test Condition: Long Term (days, weeks)	93	93
Faceside Adhesive Thickness (mm)	0.071	0.071
Backside Adhesive Thickness (mm)	0.086	0.086
Carrier Thickness (mm)	0.013	0.013
Adhesive Carrier	Clear Polyester	Clear Polyester
Adhesive Thickness (mm)	0.17	0.17

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.

