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.

3M™ Double Coated Tape 9495LE

## 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.

### Trademarks

3M is a trademark of 3M Company.

### References

| Property | Values |
|---|---|
| 3m.com Product Page | https://www.3m.com/3M/en_US/company-us/all-3m-products/~/3M-Double-Coated-Tape-9495LE/?N=5002385+3294001321&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=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 |

**Table continued on next page**

## Family Group (continued)

| | 9474LE | 9495LE |
|---|---|---|
| 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.

## Information

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Industrial Adhesives and Tapes Division
3M Center
St. Paul, MN 55144-1000
800-362-3550
www.3M.com

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