3M™ Double Coated Tapes 9474LE • 9495LE

Product Description

3M™ Double Coated Tapes with 3M™ Laminating Adhesive 300LSE provides 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 lightly with oil typically used with machine parts.

Construction

Product Number	Faceside[1] Adhesive Thickness	Carrier Type/ Thickness	Backside[2] Adhesive Thickness	Liner Color, Type, Print	Liner Caliper[3]	Total Tape Thickness (w/o liner)
3M™ Double Coated Tape 9474LE	2.8 mil (0.071mm)	Clear Polyester 0.5 mil (0.013mm)	3.4 mil (0.086mm)	Faceside Liner/ Tan, 58# Polycoated Kraft, no print Backside Liner/ Tan, 58# Polycoated Kraft, "3M 300LSE"	4.2 mil (0.11mm)/ 4.2 mil (0.11mm)	6.7 mil (0.17mm)
3M™ Double Coated Tape 9495LE	2.8 mil (0.071mm)	Clear Polyester 0.5 mil (0.013mm)	3.4 mil (0.086mm)	Tan, 58#, Polycoated Kraft "3M 300LSE"	4.2 mil (0.11mm)	6.7 mil (0.17mm)

Note 1: Faceside (FS) adhesive is on the interior of the roll, exposed when unwound.

Note 2: Backside (BS) adhesive is on the exterior of the roll, exposed when liner is removed.

Note 3: The caliper listed is based on a calculation from manufacturing controlled adhesive coat weights using a density of 1.012 g/cc.

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.
- 3M™ Double Coated Tape 9474LE features a dual liner for ease in selective die cutting.
- The bond strength of 3M™ Laminating Adhesive 300LSE increases as a function of time and temperature, and has very high initial adhesion.

Application Ideas

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

Typical Physical Properties and Performance Characteristics

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Product Number	3M™ Double Coated Tapes 9474LE, 9495LE
Adhesion to stainless steel ASTM D3330 - 180 degree, 2 mil Al foil	Oz/in (N/cm) [kg/25.4 mm]
- 15 minute RT	60 (6.6) [1.7]
- 72 hour RT	90 (9.9) [2.6]
Adhesion to other surfaces ASTM D3330 - 180 degree, 2 mil Al foil, 72 hour RT	
ABS	110 (12.0) [3.1]
Polypropylene	125 (13.7) [3.6]
Polycarbonate	130 (14.2) [3.7]
Glass	95 (10.4) [2.7]
Shear Strength - ASTM D3654 modified - (.5 inch^2 sample size)	
1000 grams at 72°F (22°C)	>10,000 minutes
500 grams at 158°F (70°C)	>10,000 minutes
Relative High Temperature Operating Ranges:	
Long Term (days, weeks)	200°F (93°C)
Short Term (minutes, hours)	300°F (149°C)
Relative Solvent Resistance:	Very Good
Dielectric Properties:	
Dielectric Strength	1100 volts/mil
Breakdown Voltage	7100 volts

Available Sizes

Roll length, width, slitting tolerance, core size.

Available Lengths (Subject to minimum order requirements)

Product Number	3M™ Double Coated Tape 9474LE	3M™ Double Coated Tape 9495LE
Maximum Length in:		
1/2" to 63/64"	–	180 yd. (164 m)
1" to 3"	–	360 yd. (329 m)
3" to 48"	–	360 yd. (329 m)
48" to 54"	–	360 yd. (329 m)
Normal Slitting Tolerance	–	±1/32 in. (0.8 mm)
Core Size	–	3.0 in. (76.2 mm)
Sheet Size	24" x 36"	–

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. Some typical surface cleaning solvents are isopropyl alcohol or heptane.*

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.

*Note: Carefully read and follow the manufacturer's precautions and directions for use when working with solvents. These cleaning recommendations may not be compliant with the rules of certain Air Quality Management Districts in California; consult applicable rules before use.

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.

Environmental Performance

Humidity Resistance: High humidity has minimal effect on adhesive performance. No significant reduction in bond strength is observed after exposure for seven 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 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 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

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

Shelf Life

If stored under proper conditions, product retains its performance and properties for two years from date of manufacture.

Certification/Recognition

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.

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.

Important Notice

All statements, technical information, and recommendations related to 3M's products are based on information believed to be reliable, but the accuracy or completeness is not guaranteed. Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use. Any statements related to the product which are not contained in 3M's current publications, or any contrary statements contained on your purchase order shall have no force or effect unless expressly agreed upon, in writing, by an authorized officer of 3M.

Warranty; Limited Remedy; Limited Liability.

This product will be free from defects in material and manufacture at the time of purchase. 3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. If this product is defective within the warranty period stated above, your exclusive remedy shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the 3M product. Except where prohibited by law, 3M will not be liable for any indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.

3M

Electronics Markets Materials Division
3M Center, Building 225-3S-06
St. Paul, MN 55144-1000
1-800-251-8634 phone
651-778-4244 fax
www.3M.com/electronics

3M is a trademark of 3M Company.
Please recycle. Printed in U.S.A.
©3M 2011. All rights reserved.
60-5002-0532-7