

August, 2016

3M™ Adhesive Transfer Tape L2 + T5

Product Description

3M™ Double Coated Polyester Tape L2+DCP, 3M™ Double Coated Differential Tape L2+DCD and 3M™ Adhesive Transfer Tapes L2+T3 and L2+T5 feature a proprietary 3M modified acrylic adhesive that withstands temperatures up to 225°F (107°C) and offers high initial tack, excellent peel adhesion and strength to many open and closed cell foams. These tapes bond well to Polyurethane (PU) Ether, PU Ester, Cross-Linked Polyethylene (PE) Foam, EPDM Foam, Neoprene Foam, Nitrile Foam and Microcellular Urethane. All constructions from the L2 Family feature an 83# kraft colored, unprinted, polycoated kraft (PCK) liner for superior processing.



Product Features

- Proprietary 3M modified acrylic adhesive that withstands temperatures up to 225° F (107° C)
- Adhesive offers high initial tack to many open and closed cell foam materials
- Excellent peel adhesion and shear strength
- Bonds well to Polyurethane (PU) Ether, PU Ester, cross-linked Polyethylene (PE) foam, EPDM foam, neoprene foam, nitrile foam, and microcellular foam
- An 83# tan colored, unprinted polycoated kraft (PCK) liner for superior processing

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	0.127 mm	5 mil	ASTM D3652	
Adhesive Type	Acrylic			
Liner	83# PCK			
Liner Print	None			
Liner Color	Kraft			Primary
Liner Thickness	0.145 mm	6.2 mil		
Product Construction	L2+T5 is a 5-mil transfer tape that shares the same benefits of L2+T3, but offers a 2 mil thicker coat weight to adhere to the most structured open and closed cell foam surfaces.			

Typical Performance Characteristics

Property	Values		Test Condition	Method	Dwell/Cure Time	Dwell Time Units	Notes
Short Term Temperature Resistance	121 °C	250 °F	Short Term (minutes, hour)				
Long Term Temperature Resistance	93 °C	200 °F	Long Term (day, weeks)				
Static Shear	10000 min		1000 g @ Room Temperature	ASTM D3654	72	hr	1 in ² sample size

Table continued on next page

Typical Performance Characteristics (continued)

Property	Values		Test Condition	Method	Dwell/Cure Time	Dwell Time Units	Notes
Static Shear	1383 min		1000 g @ 70°C (158°F)	ASTM D3654	72	hr	1 in ² sample size

T-Peel Adhesion		Substrate
9 N/cm	82 oz/in	EDPM Foam
4.2 N/cm	38 oz/in	Neoprene Foam
5 N/cm	46 oz/in	Cross-Linked PE Foam
3.4 N/cm	31 oz/in	Nitrile Foam

Property: T-Peel Adhesion
 Method: ASTM D1876
 Test Name: Foam Faceside
 Dwell/Cure Time: 72
 Dwell Time Units: hr
 Temp C: 23C
 Temp F: 73F

90° Peel Adhesion		Substrate
9 N/cm	82 oz/in	Stainless Steel
4.6 N/cm	42 oz/in	Polypropylene (PP)
4.3 N/cm	39 oz/in	ABS
6.7 N/cm	61 oz/in	Aluminum

Property: 90° Peel Adhesion
 Method: ASTM D3330
 Test Name: Backside
 Dwell/Cure Time: 72
 Dwell Time Units: hr
 Temp C: 23C
 Temp F: 72F
 Environmental Condition: 50%RH
 Backing: 2 mil Aluminum Foil
 notes: 12 in/min (300 mm/min)

Available Sizes

Property	Values		Test Name
Note	Subject to Minimum Order Requirements		
Standard Roll Length	229 m	250 yd	
Available Width	1372 mm	54 in	
Normal Slitting Tolerance	±0.8 mm	±1/32 in	
Core Size	76.2 mm	3 in	ID

3M™ Adhesive Transfer Tape L2 + T5

Typical Environmental Performance

Environmental Resistance

Temperature Resistance: The L2 adhesive family is usable for short periods (minutes, hours) at temperatures up to 225°F (107°C) and for intermittent longer periods of time (days, weeks) up to 170°F (77°C).

Lower Service Temperature: -40°F (-40°C)

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.

Handling/Application Information

Application Techniques

Bond strength is dependent upon the amount of adhesive-to-surface contact developed. Firm pressure during application 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.

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 the date of manufacture.

References

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/company-us/all-3m-products/~/3M-Adhesive-Transfer-Tape-L2-T5X/?N=5002385+3292075610&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=L2 + T5

Family Group

	L2 + T3	L2 + T5	L2 + DCP	L2 + DCD
Short Term Temperature Resistance (°C) Test Condition: Short Term (minutes, hour)	121	121	121	121
Liner Color Test Name: Primary	Kraft	Kraft	Kraft	Kraft
Long Term Temperature Resistance (°C) Test Condition: Long Term (day, weeks)	93	93	93	93
Total Tape Thickness (mm)	0.076	0.127	0.121	0.17
Adhesive Type	Acrylic	Acrylic	Acrylic	Acrylic

Table continued on next page

Family Group (continued)

	L2 + T3	L2 + T5	L2 + DCP	L2 + DCD
Liner	83# PCK	83# PCK	83# PCK	83# PCK
Liner Thickness (mm)	0.145	0.145	0.145	0.145

ISO Statement

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

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.

Product Selection and Use: Many factors beyond 3M’s control and uniquely within user’s knowledge and control can affect the use and performance of a 3M product in a particular application. As a result, customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer’s application, including conducting a workplace hazard assessment and reviewing all applicable regulations and standards (e.g., OSHA, ANSI, etc.). Failure to properly evaluate, select, and use a 3M product and appropriate safety products, or to meet all applicable safety regulations, may result in injury, sickness, death, and/or harm to property.

Warranty, Limited Remedy, and Disclaimer: Unless a different warranty is specifically stated on the applicable 3M product packaging or product literature (in which case such warranty governs), 3M warrants that each 3M product meets the applicable 3M product specification at the time 3M ships the product. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE. If a 3M product does not conform to this warranty, then the sole and exclusive remedy is, at 3M’s option, replacement of the 3M product or refund of the purchase price.

Limitation of Liability: Except for the limited remedy stated above, and except to the extent prohibited by law, 3M will not be liable for any loss or damage arising from or related to the 3M product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability.

Disclaimer: 3M industrial and occupational products are intended, labeled, and packaged for sale to trained industrial and occupational customers for workplace use. Unless specifically stated otherwise on the applicable product packaging or literature, these products are not intended, labeled, or packaged for sale to or use by consumers (e.g., for home, personal, primary or secondary school, recreational/sporting, or other uses not described in the applicable product packaging or literature), and must be selected and used in compliance with applicable health and safety regulations and standards (e.g., U.S. OSHA, ANSI), as well as all product literature, user instructions, warnings, and limitations, and the user must take any action required under any recall, field action or other product use notice. Misuse of 3M industrial and occupational products may result in injury, sickness, or death. For help with product selection and use, consult your on-site safety professional, industrial hygienist, or other subject matter expert. For additional product information, visit www.3M.com.

