Technical Data Sheet

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	Additional Information
Adhesive Type	Acrylic	
Liner Color	Kraft	View
Test Name: Primary		
Liner	83# PCK	
Liner Thickness	0.145 mm	
Liner Print	None	
Total Tape Thickness (mil)	5 mil	View
Test Method: ASTM D3652		

Total Tape Thickness (mm)	0.127 mm	View
Test Method: ASTM D3652		
Liner Thickness	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	Additional Information
90° Peel Adhesion	9 N/cm	View
Test Method: ASTM D3330 Test Name: Backside Dwell/Cure Time: 72.0 Dwell Time Units: hr Temp C: 23C Temp F: 72F Environmental Condition: 50%RH Substrate: Stainless Steel Backing: 2 mil Aluminum Foil Notes: 12 in/min (300 mm/min)		
90° Peel Adhesion	82 oz/in	View
Test Method: ASTM D3330 Test Name: Backside Dwell/Cure Time: 72.0 Dwell Time Units: hr Temp C: 23C Temp F: 72F Environmental Condition: 50%RH Substrate: Stainless Steel Backing: 2 mil Aluminum Foil Notes: 12 in/min (300 mm/min)		
90° Peel Adhesion	4.6 N/cm	View
Test Method: ASTM D3330 Test Name: Backside Dwell/Cure Time: 72.0 Dwell Time Units: hr Temp C: 23C Temp F: 72F Environmental Condition: 50%RH Substrate: Polypropylene (PP) Backing: 2 mil Aluminum Foil Notes: 12 in/min (300 mm/min)		
90° Peel Adhesion	42 oz/in	View
Test Method: ASTM D3330		

Test Name: Backside
Dwell/Cure Time: 72.0
Dwell Time Units: hr
Temp C: 23C
Temp F: 72F
Environmental Condition: 50%RH
Substrate: Polypropylene (PP)
Backing: 2 mil Aluminum Foil

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion	4.3 N/cm	View

Test Method: ASTM D3330

Test Name: Backside
Dwell/Cure Time: 72.0
Dwell Time Units: hr
Temp C: 23C
Temp F: 72F
Environmental Condition: 50%RH
Substrate: ABS
Backing: 2 mil Aluminum Foil

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion	39 oz/in	View

Test Method: ASTM D3330

Test Name: Backside
Dwell/Cure Time: 72.0
Dwell Time Units: hr
Temp C: 23C
Temp F: 72F
Environmental Condition: 50%RH
Substrate: ABS
Backing: 2 mil Aluminum Foil

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion	6.7 N/cm	View

Test Method: ASTM D3330

Test Name: Backside
Dwell/Cure Time: 72.0
Dwell Time Units: hr
Temp C: 23C
Temp F: 72F
Environmental Condition: 50%RH
Substrate: Aluminum
Backing: 2 mil Aluminum Foil

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion	61 oz/in	View

Test Method: ASTM D3330

Test Name: Backside
Dwell/Cure Time: 72.0
Dwell Time Units: hr
Temp C: 23C
Temp F: 72F
Environmental Condition: 50%RH
Substrate: Aluminum
Backing: 2 mil Aluminum Foil

Notes: 12 in/min (300 mm/min)

Short Term Temperature Resistance	250 °F	View

Test Condition: Short Term (minutes, hour)

Short Term Temperature Resistance	121 °C	View
Test Condition: Short Term (minutes, hour)		
Long Term Temp C	93 °C	View
Test Condition: Long Term (day, weeks)		
Long Term Temp F	200 °F	View
Test Condition: Long Term (day, weeks)		
Static Shear	10000 min	View
Test Method: ASTM D3654 Dwell/Cure Time: 72.0 Dwell Time Units: hr Test Condition: 1000 g @ Room Temperature Notes: 1 in² sample size		
Static Shear	1383 min	View
Test Method: ASTM D3654 Dwell/Cure Time: 72.0 Dwell Time Units: hr Test Condition: 1000 g @ 70°C (158°F) Notes: 1 in² sample size		
T-Peel Adhesion	9 N/cm	View
Test Method: ASTM D1876 Test Name: Foam Faceside Dwell/Cure Time: 72.0 Dwell Time Units: hr Temp C: 23C Temp F: 73F Substrate: EDPM Foam		
T-Peel Adhesion	82 oz/in	View
Test Method: ASTM D1876 Test Name: Foam Faceside Dwell/Cure Time: 72.0 Dwell Time Units: hr Temp C: 23C Temp F: 73F Substrate: EDPM Foam		
T-Peel Adhesion	4.2 N/cm	View
Test Method: ASTM D1876 Test Name: Foam Faceside Dwell/Cure Time: 72.0 Dwell Time Units: hr Temp C: 23C Temp F: 73F Substrate: Neoprene Foam		
T-Peel Adhesion	38 oz/in	View

Test Method: ASTM D1876

Test Name: Foam Faceside
Dwell/Cure Time: 72.0
Dwell Time Units: hr
Temp C: 23C
Temp F: 73F
Substrate: Neoprene Foam

T-Peel Adhesion	5 N/cm	View

Test Method: ASTM D1876

Test Name: Foam Faceside
Dwell/Cure Time: 72.0
Dwell Time Units: hr
Temp C: 23C
Temp F: 73F
Substrate: Cross-Linked PE Foam

T-Peel Adhesion	46 oz/in	View

Test Method: ASTM D1876

Test Name: Foam Faceside
Dwell/Cure Time: 72.0
Dwell Time Units: hr
Temp C: 23C
Temp F: 73F
Substrate: Cross-Linked PE Foam

T-Peel Adhesion	3.4 N/cm	View

Test Method: ASTM D1876

Test Name: Foam Faceside
Dwell/Cure Time: 72.0
Dwell Time Units: hr
Temp C: 23C
Temp F: 73F
Substrate: Nitrile Foam

T-Peel Adhesion	31 oz/in	View

Test Method: ASTM D1876

Test Name: Foam Faceside
Dwell/Cure Time: 72.0
Dwell Time Units: hr
Temp C: 23C
Temp F: 73F
Substrate: Nitrile Foam

Available Sizes

Property	Values	Additional Information
Note	Subject to Minimum Order Requirements	
Standard Roll Length	229 m	
Standard Roll Length	250 yd	

Available Width	1372 mm
Available Width	54 in
Normal Slitting Tolerance	±0.8 mm
Normal Slitting Tolerance	±1/32 in
Core Size (ID)	76.2 mm
Core Size (ID)	3 in

Typical Environmental Performance

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.

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.

Automotive Disclaimer

Select Automotive Applications: This product is an industrial product and has not been designed or tested for use in certain automotive applications, such as automotive electric powertrain battery or high voltage applications, which may require the product to be manufactured in a IATF certified facility, meet a Ppk of 1.33 for all properties, undergo an automotive production part approval process (PPAP), or fully adhere to automotive design or quality system requirements (e.g., IATF 16949 or VDA 6.3). Customer assumes all responsibility and risk if customer chooses to use this product in these applications.

Bottom Matter

3M
Industrial Adhesives and Tapes Division
3M Center, Building 225-3S-06
St. Paul, MN 55144-1000
800-362-3550

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.

References

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/p/d/b40071711/
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

Link Tags:

L2 + T3 L2 + T5 L2 + DCP L2 + DCD

Products	Adhesive Type	Liner	Total Tape Thickness (mm)	Short Term Temperature Resistance	Long Term Temp F	Liner Thickness	Liner Color
L2 + T3	Acrylic	83# Polycoated Kraft Paper (PCK)	0.076 mm	121 °C	N/A	N/A	N/A
L2 + DCD	Acrylic	83# PCK	0.17 mm	121 °C	N/A	N/A	N/A
L2 + T5	N/A	83# PCK	0.127 mm	N/A	200 °F	0.145 mm	Kraft
L2 + DCP	N/A	83# PCK	0.121 mm	N/A	200 °F	0.145 mm	Kraft

ISO Statement

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

Information

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