

August, 2016

## 3M™ Double Coated Polyester Tape L2 + DCP

### 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

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## 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	0.121 mm	4.8 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+DCP is a double-coated polyester tape that provides excellent adhesion to a wide variety of substrates, including many open and closed cell foams.			

## 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 <sup>2</sup> sample size
Static Shear	4780 min		1000 g @ 70°C (158°F)	ASTM D3654	72	hr	1 in <sup>2</sup> sample size

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### Typical Performance Characteristics (continued)

T-Peel Adhesion		Substrate
3.8 N/cm	35 oz/in	EDPM Foam
4.5 N/cm	41 oz/in	Neoprene Foam
5.8 N/cm	53 oz/in	Cross-Linked PE Foam
2.6 N/cm	24 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
7.7 N/cm	70 oz/in	Stainless Steel
4 N/cm	37 oz/in	Polypropylene (PP)
3.2 N/cm	29 oz/in	ABS
4.8 N/cm	44 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

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## 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	<a href="https://www.3m.com/3M/en_US/company-us/all-3m-products/~/3M-Double-Coated-Differential-Adhesive-Tape-L2-DCPX/?N=5002385+3292075594&amp;rt=rud">https://www.3m.com/3M/en_US/company-us/all-3m-products/~/3M-Double-Coated-Differential-Adhesive-Tape-L2-DCPX/?N=5002385+3292075594&amp;rt=rud</a>
Safety Data Sheet SDS	<a href="https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&amp;msdsLocale=en_US&amp;co=ptn&amp;q=L2 + DCP">https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&amp;msdsLocale=en_US&amp;co=ptn&amp;q=L2 + DCP</a>

### 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

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## 3M™ Double Coated Polyester Tape L2 + DCP

### 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.

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