



## CCI PSA

# Double Coated Polyester Tape L1+DCP

## Scrim Reinforced Adhesive Transfer Tape L1+RT DCP

Technical Data August, 2016

### Product Description

The L1 adhesive platform features a modified acrylic adhesive with good initial tack and peel adhesion to many open cell foam substrates. The 3M L1 tapes are designed to withstand temperatures up to 200°F (93°C) and bond well to a wide range of foam substrates, including Polyurethane (PU) foam, Cross-Linked Polyethylene (PE) foam, and Microcellular Urethane foam. All L1 constructions feature a white 74# densified kraft (DK) liner for excellent processing.

### Construction

L1+RT adhesive transfer tape is reinforced with a high density scrim carrier to boost dimensional stability during lamination processes. An adhesive coat weight of 3.2 mils allows the adhesive to flow and ensures good bond strength even around tight radiuses and contoured surfaces.

L1+DCP is a 3.5 mil double-coated polyester (PET) tape which provides added dimensional stability and improved handling during laminating or die cutting processes, particularly on thin or flexible substrates. An adhesive coat weight of 1.5 mils on each side of a 0.50 mil PET carrier provides good adhesion to many foam substrates.

| Product Name | Adhesive Thickness  | Liner Color / Type | Liner Thickness     |
|--------------|---------------------|--------------------|---------------------|
| L1+RT        | 3.2 mils (0.081 mm) | White / 74# DK     | 4.1 mils (0.103 mm) |
| L1+DCP       | 3.5 mils (0.097 mm) | White / 74# DK     | 4.1 mils (0.103 mm) |

Note: The adhesive caliper listed is based on a calculation from manufacturing controlled adhesive coat weights using a density of 1.071 g/cc.

# Double Coated Polyester Tape L1+DCP

## Scrim Reinforced Adhesive Transfer Tape L1+RT

### DCP

#### 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                                    | L1+RT              | L1+DCP             |
|---|--------------------|--------------------|
| <b>Adhesion to Substrates</b>                     |                    |                    |
| ASTM D3330 – 90 degree, 2 mil AL foil, 72 hour RT | Oz/in<br>(N/25 mm) | Oz/in<br>(N/25 mm) |
|   | Backside           | Backside           |
| Stainless Steel                                   | 48 (13.3)          | 40 (11.1)          |
| Aluminum  | 47 (13.1)          | 38 (10.6)          |
| ABS   | 50 (13.9)          | 39 (10.8)          |
| Polypropylene                                     | 43 (12.0)          | 34 (9.5)           |

| Product Number                                       | L1+RT              | L1+DCP             |
|--|--------------------|--------------------|
| <b>Adhesion to Foam Substrates</b>                   |                    |                    |
| ASTM D1876-08 T-Peel Adhesion ,2 mil PET, 72 hour RT | Oz/in<br>(N/25 mm) | Oz/in<br>(N/25 mm) |
|  | Faceside           | Faceside           |
| Polyurethane Foam                                    | 22 (6.1) POF       | 14 (3.9) POF       |
| Microcellular Urethane                               | 27 (7.5) POF       | 48 (13.3) FT       |
| Cross-Linked Polyethylene                            | 25 (7.0) FP        | 48 (13.3) FT       |

\*POF= Pop off foam, FT= Foam Tear, FP=Foam Picking

**Static Shear Strength**

ASTM D3654, Modified - (1 inch<sup>2</sup> sample), 1000 gm Wt., 72hr dwell

| Product Name | Environmental Conditions (minutes) |       |
|--------------|------------------------------------|-------|
|              | 72°F (22°C)                        | 158°F |
| L1+RT        | 34                                 | >1    |
| L1+DCP       | 1,088                              | 3     |

### Available Sizes

Roll Widths: 39 in (1000 mm), 54 in (1372mm), & 60 in (1524mm)

Roll Length: 251 yards (230 m)

Normal Slitting Tolerance:  $\pm 1/32$  in. (0.08 mm)

Core Size (ID): 3.0 in. (76.2 mm)

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### Double Coated Polyester Tape L1+DCP

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### DCP

### Features

- The L1 adhesive is a modified acrylic adhesive that withstands temperatures up to 200°F (93°C).
- Adhesive offers good initial tack and peel adhesion to many open cell foam materials.
- Bonds well to polyurethane (PU) foam, cross-linked polyethylene (PE) foam, and microcellular urethane foam.
- An 74# white colored, unprinted densified kraft (PCK) liner for excellent processing.

### Application Techniques

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

**Environmental Performance** Temperature Resistance: The L1 adhesive family is usable for short periods (minutes, hours) at temperatures up to 200°F

(93°C) and for intermittent longer periods of time (days, weeks) up to 150°F (66°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**

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 12 months from the date of shipment.

### **Technical Information**

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