



Technical Data Sheet

3M™ Adhesive Transfer Tape L3 + T5



[Product Details](#)

Product Description

3M™ Adhesive Transfer Tapes L3+T3 and L3+T5 consist of a proprietary specialty acrylic adhesive designed to withstand temperatures up to 275°F (135°C) and have a good adhesion to elastomeric substrates. They bond well to Santoprene™, Neoprene Rubber, Butyl Rubber and many versions of EPDM Rubber. All constructions from the L3 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 275°F (135°C)
- Adhesive offers good adhesion to many elastomeric substrates
- Excellent peel adhesion and shear strength
- Bonds well to Santoprene™, neoprene rubber, butyl rubber, nitrile rubber, and many versions of EPDM rubber
- 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

| Attribute Name | Value |
|----------------------|--|
| Product Construction | L3+T5 a 5-mil transfer tape that shares all the benefits of L3+T3, but offers a 5 mil coat weight to adhere to more structured surfaces. |

| Attribute Name | Test Method | Value |
|----------------------|-------------|--------------------|
| Adhesive Type | | Acrylic |
| Total Tape Thickness | ASTM D3652 | 0.127 mm (5 mil) |
| Liner | | 83# PCK |
| Liner Thickness | | 0.145 mm (6.2 mil) |
| Primary Liner Color | | Kraft |

Typical Performance Characteristics

90° Peel Adhesion

Temperature: 23 °C (73 °F)

Test Condition: Backside

Dwell Time: 72 h

Backing: 2 mil Aluminum Foil

Test Method: ASTM D3330

| Substrate | Value |
|--------------------|------------------------------------|
| ABS | 11 N/cm (102 oz/in) ¹ |
| Aluminum | 7.3 N/cm (67 oz/in) ¹ |
| Polypropylene (PP) | 12.6 N/cm (115 oz/in) ¹ |
| Stainless Steel | 12 N/cm (109 oz/in) ¹ |

¹ 304 mm/min (12 in/min)

T-Peel Elastomeric Faceside

Temperature: 23 °C (73 °F)
Dwell Time: 72 h
Test Method: ASTM D1876

| Substrate | Value |
|-----------------|--|
| Butyl Rubber | 2.2 N/cm (20 oz/in) (POR) ¹ |
| EPDM Rubber | 4.2 N/cm (38 oz/in) (POR) ¹ |
| Neoprene Rubber | 3.5 N/cm (32 oz/in) (POR) ¹ |
| TPV | 3.2 N/cm (29 oz/in) (POR) ¹ |

¹ POR=Pop Off Rubber

Static Shear

Test Condition: 1000 g
Dwell Time: 72 h
Test Method: ASTM D3654

| Temperature | Value |
|----------------|-------------------------|
| 23 °C (73 °F) | 10,000 min ¹ |
| 70 °C (158 °F) | 3,875 min ¹ |

¹ 25 x 25 mm (1 in x 1 in) sample area, test terminated after 10,000 minutes

| Attribute Name | Value |
|-----------------------------------|------------------------------|
| Short Term Temperature Resistance | 149 °C (300 °F) ¹ |
| Long Term Temperature Resistance | 93 °C (200 °F) ² |

¹ Short Term (minutes, hour)

² Long Term (day, weeks)

Typical Environmental Characteristics

Environmental Resistance

Temperature Resistance: The L3 adhesive family is usable for short periods (minutes, hours) at temperatures up to 275°F (135°C) and for intermittent longer periods of time (days, weeks) up to 200°F (93°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 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 under normal conditions of 16° to 27°C (60° to 80°F) and 40 to 60% relative humidity in the original packaging, out of direct sunlight. For best performance, use this product within 24 months from date of manufacture.

Available Sizes

| Attribute Name | Value |
|---------------------------|---------------------------------------|
| Available Width | 1372 mm (54 in) |
| Core Size (ID) | 76.2 mm (3 in) |
| Normal Slitting Tolerance | ±0.8 mm (±1/32 in) |
| Note | Subject to Minimum Order Requirements |
| Standard Roll Length | 229 m (250 yd) |

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.

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ISO Statement

This product was manufactured under a 3M quality system registered to ISO 9001 standards.

3M™ Industrial Adhesives and Tapes Division
3M Center, St. Paul, MN 55144-1000
3M.com/iatd

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