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3M™ Adhesive Transfer Tape L3 + T5

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

| Property | Values | |
|----------------------|--|---------|
| Adhesive Thickness | 0.127 mm | 5 mil |
| Liner Material | 83# PCK | |
| Liner Thickness | 0.145 mm | 6.2 mil |
| Liner Color | Kraft | |
| 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. | |

Typical Performance Characteristics

| Property | Values | Method | Dwell/Cure Time | Test Condition | Notes |
|--------------|------------|------------|-----------------|---------------------------|-------------------------------|
| Static Shear | 10,000 min | ASTM D3654 | 72 hr | 1000 g @ Room Temperature | 1 in ² sample size |
| Static Shear | 3,875 min | ASTM D3654 | 72 hr | 1000 g @ 70°C (158°F) | 1 in ² sample size |

| T-Peel Adhesion to Elastomeric Substrates (Faceside) | | Substrate |
|--|----------|-----------------|
| 3.2 N/cm | 29 oz/in | TPV |
| 3.5 N/cm | 32 oz/in | Neoprene Rubber |
| 2.2 N/cm | 20 oz/in | Butyl Rubber |
| 4.2 N/cm | 38 oz/in | EPDM Rubber |

Property: T-Peel Adhesion to Elastomeric Substrates (Faceside)
 Method: ASTM D1876
 Dwell/Cure Time: 72 hr @ Room Temperature
 Failure mode: POR
 notes: POR=Pop Off Rubber

| Backside 90° Peel Adhesion | | Substrate |
|----------------------------|-----------|--------------------|
| 7.3 N/cm | 67 oz/in | Aluminum |
| 12 N/cm | 109 oz/in | Stainless Steel |
| 12.6 N/cm | 115 oz/in | Polypropylene (PP) |

Table continued on next page

Typical Performance Characteristics (continued)

| Backside 90° Peel Adhesion | | Substrate |
|----------------------------|-----------|-----------|
| 11 N/cm | 102 oz/in | ABS |

Property: Backside 90° Peel Adhesion
Method: ASTM D3330
Dwell/Cure Time: 72 hr @ Room Temperature
Backing: Aluminum Foil

Available Sizes

| Property | Values | |
|---------------------------|---------------------------------------|----------|
| 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 (ID) | 76.2 mm | 3 in |

Environmental Performance

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 in original cartons at 70°F (21°C) and 50% relative humidity.

If stored under proper conditions, product retains its performance and properties for 12 months from the date of shipment.

Industry Specifications

Tested to FCA PF-10770

Tested to GMW 16443 Type 1

Tested to Ford ESB-M3G76-B2

3M™ Adhesive Transfer Tape L3 + T5

Family Group

| | L3 + T3 | L3 + T5 |
|-------------------------|---------|---------|
| Adhesive Thickness (mm) | 0.076 | 0.127 |
| Liner Material | 83# PCK | 83# PCK |
| Liner Thickness (mm) | 0.145 | 0.145 |
| Liner Color | Kraft | Kraft |

References

1. Safety Data Sheet

Url: https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=L3 + T5

ISO Statement

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

Technical Information

The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

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