



# L3 Adhesive Family

## L3+T3 • L3+T5

Preliminary Technical Data

April, 2016

**Product Description** The L3 adhesive platform is a proprietary specialty acrylic adhesive designed to withstand temperatures up to 275°F (135°C) and has a good adhesion to elastomeric substrates. It bonds well to Santoprene, Neoprene Rubber, Butyl Rubber, and many versions of EPDM Rubber. All L3 constructions feature an 83# kraft coloured unprinted polycoated kraft (PCK) liner for superior processing.

**Construction** L3+T3 is a 3-mil transfer tape that does not have a carrier, this enables it to provide maximum conformability and good adhesion to elastomeric surfaces.

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

Product Name	Adhesive Thickness	Liner Color / Type	Liner Thickness
L3+T3	3.0 mils (0.076 mm)	Kraft /83# PCK	6.2 mils (0.145 mm)
L3+T5	5.0 mils (0.127 mm)	Kraft /83# PCK	6.2 mils (0.145 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.

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### 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	L3+T3		L3+T5	
<b>Adhesion to Substrates</b> ASTM D3330 – 90 degree, 2 mil AL foil, 72 hour RT	Oz/in (N/25 mm) Backside		Oz/in (N/25 mm) Backside	
Stainless Steel	90 (25)		109 (30)	
Aluminum	56 (16)		67 (19)	
ABS	80 (22)		102 (28)	
Polypropylene	89 (25)		115 (32)	
Product Number	L3+T3		L3+T5	
<b>Adhesion to Elastomeric Substrates</b> ASTM D1876-08 T-Peel Adhesion 2 mil PET, 72 hour RT	Oz/in (N/25 mm)		Oz/in (N/25 mm)	
	Faceside	Observe	Faceside	Observe
Santoprene	25 (7)	POR	29 (8)	POR
Neoprene Rubber	23 (6)	POR	32 (9)	POR
Butyl Rubber	17 (5)	POR	20 (6)	POR
EPDM rubber	24 (7)	POR	38 (11)	POR

\*\*\* POR=Pop Off Rubber SAT= Slight Adhesive Transfer

### 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 (70°C)
L3+T3	10,000	4,218
L3+T5	10,000	3,875

### Available Sizes

#### Roll Length, Width, Slitting Tolerance, Core Size.

Roll Widths	54 in (1372mm)
Roll Length	250 yards (229 m)
Normal Slitting Tolerance	± 1/32 in. (0.08 mm)
Core Size (ID)	3.0 in. (76.2mm)

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### 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 coloured, unprinted polycoated kraft (PCK) liner for superior processing

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### 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.

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### 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.

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### Storage

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

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### Shelf Life

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

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**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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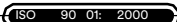
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