



# Technical Data Sheet

## 3M™ Double Coated Tape 9490LE+



[Product Details](#)

### Product Description

3M™ Double Coated Tape 9490LE+ is a differential double coated tape with 3M™ Acrylic Adhesive 300MP+ and Acrylic Adhesive 300LSE.

### 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	Test Method	Test Condition	Value
Adhesive Type		Faceside	300MP+ <sup>1</sup>
Adhesive Thickness		Faceside	0.071 mm (2.8 mil) <sup>1</sup>
Adhesive Carrier			Clear PET (Polyester)
Carrier Thickness			0.013 mm (0.5 mil)
Adhesive Type		Backside	300LSE <sup>2</sup>
Adhesive Thickness		Backside	0.086 mm (3.4 mil) <sup>2</sup>
Total Tape Thickness	ASTM D3652		0.17 mm (6.7 mil)
Density			0.91 g/cm <sup>3</sup>

<sup>1</sup> Faceside adhesive is on the interior of the roll, exposed when unwound and liner removed.

<sup>2</sup> Backside adhesive is on the exterior of the roll, exposed when liner is removed.

Attribute Name	Value
Primary Liner Color	Tan
Liner Print	3M 300LSE
Primary Liner Thickness	0.11 mm (4.2 mil)

### Typical Performance Characteristics

#### 180° Peel Adhesion

Backing: 2 mil Aluminum Foil

Test Method: ASTM D3330

Dwell Time	Temperature	Test Condition	Substrate	Value
20 min	22 °C (72 °F)	Faceside	Stainless Steel	5.1 N/cm (46 oz/in) <sup>1</sup>
72 h	22 °C (72 °F)	Faceside	Stainless Steel	8.7 N/cm (79 oz/in) <sup>1</sup>
72 h	22 °C (72 °F)	Faceside	ABS	5.7 N/cm (52 oz/in) <sup>1</sup>
72 h	22 °C (72 °F)	Faceside	Polypropylene (PP)	5.5 N/cm (50 oz/in) <sup>1</sup>
72 h	70 °C (158 °F)	Faceside	Stainless Steel	13 N/cm (120 oz/in) <sup>1</sup>
72 h	70 °C (158 °F)	Faceside	ABS	8.7 N/cm (79 oz/in) <sup>1</sup>
72 h	70 °C (158 °F)	Faceside	Polypropylene (PP)	5.3 N/cm (49 oz/in) <sup>1</sup>
20 min	22 °C (72 °F)	Backside	Stainless Steel	9.9 N/cm (90 oz/in) <sup>1</sup>

Dwell Time	Temperature	Test Condition	Substrate	Value
72 h	22 °C (72 °F)	Backside	Stainless Steel	11 N/cm (98 oz/in) <sup>1</sup>
72 h	22 °C (72 °F)	Backside	ABS	8.8 N/cm (80 oz/in) <sup>1</sup>
72 h	22 °C (72 °F)	Backside	Polypropylene (PP)	9.1 N/cm (83 oz/in) <sup>1</sup>
72 h	70 °C (158 °F)	Backside	Stainless Steel	14 N/cm (130 oz/in) <sup>1</sup>
72 h	70 °C (158 °F)	Backside	ABS	14 N/cm (130 oz/in) <sup>1</sup>
72 h	70 °C (158 °F)	Backside	Polypropylene (PP)	11 N/cm (99 oz/in) <sup>1</sup>

<sup>1</sup> 12 in/min (300 mm/min)

### 90° Peel Adhesion

Dwell Time: 72 h  
Backing: 2 mil Aluminum Foil  
Test Method: ASTM D3330

Temperature	Test Condition	Substrate	Value
22 °C (72 °F)	Faceside	Stainless Steel	6.0 N/cm (54 oz/in) <sup>1</sup>
22 °C (72 °F)	Faceside	ABS	4.5 N/cm (42 oz/in) <sup>1</sup>
22 °C (72 °F)	Faceside	Polypropylene (PP)	4.4 N/cm (40 oz/in) <sup>1</sup>
70 °C (158 °F)	Faceside	Stainless Steel	12 N/cm (110 oz/in) <sup>1</sup>
70 °C (158 °F)	Faceside	ABS	5.8 N/cm (53 oz/in) <sup>1</sup>
70 °C (158 °F)	Faceside	Polypropylene (PP)	4.1 N/cm (38 oz/in) <sup>1</sup>
22 °C (72 °F)	Backside	Stainless Steel	8.4 N/cm (76 oz/in) <sup>1</sup>
22 °C (72 °F)	Backside	ABS	6.9 N/cm (62 oz/in) <sup>1</sup>
22 °C (72 °F)	Backside	Polypropylene (PP)	8.1 N/cm (74 oz/in) <sup>1</sup>
70 °C (158 °F)	Backside	Stainless Steel	13 N/cm (120 oz/in) <sup>1</sup>
70 °C (158 °F)	Backside	ABS	7.5 N/cm (68 oz/in) <sup>1</sup>
70 °C (158 °F)	Backside	Polypropylene (PP)	8.6 N/cm (78 oz/in) <sup>1</sup>

<sup>1</sup> 12 in/min (300 mm/min)

### Static Shear

Substrate: Stainless Steel  
Dwell Time: 72 h  
Backing: 2 mil Aluminum Foil  
Test Method: ASTM D3654

Temperature	Test Condition	Value
22 °C (72 °F)	1000g	8,700 <sup>1</sup>
70 °C (158 °F)	500g	10,000 <sup>1</sup>

<sup>1</sup> 1 in x 1 in sample area, test terminated after 10,000 minutes

Dwell Time: 16 h

Attribute Name	Test Method	Value
Fogging (Photometric method)	SAEJ1756	95 % <sup>1</sup>

<sup>1</sup> Fogging condensate on the glass plate determined by measuring the 60o specular gloss. The 60o specular gloss for the same glass plate is used as a reference value. The higher value indicates less fogging.

## Typical Environmental Performance

Temperature: 32 °C (90 °F)  
 Dwell Time: 72 h  
 Backing: 2 mil Aluminum Foil  
 Test Method: ASTM D3330  
 Environmental Condition: 90%RH

Attribute Name	Test Condition	Substrate	Value
180° Peel Adhesion	Faceside	Stainless Steel	11 N/cm (100 oz/in) <sup>1</sup>
180° Peel Adhesion	Faceside	ABS	6.4 N/cm (60 oz/in) <sup>1</sup>
180° Peel Adhesion	Faceside	Polypropylene (PP)	6.0 N/cm (55 oz/in) <sup>1</sup>
90° Peel Adhesion	Faceside	Stainless Steel	10.4 N/cm (94 oz/in) <sup>1</sup>
90° Peel Adhesion	Faceside	ABS	7.2 N/cm (66 oz/in) <sup>1</sup>
90° Peel Adhesion	Faceside	Polypropylene (PP)	4.7 N/cm (42 oz/in) <sup>1</sup>
180° Peel Adhesion	Backside	Stainless Steel	12 N/cm (110 oz/in) <sup>1</sup>
180° Peel Adhesion	Backside	ABS	9.9 N/cm (90 oz/in) <sup>1</sup>
180° Peel Adhesion	Backside	Polypropylene (PP)	12 N/cm (110 oz/in) <sup>1</sup>
90° Peel Adhesion	Backside	Stainless Steel	10 N/cm (94 oz/in) <sup>1</sup>
90° Peel Adhesion	Backside	ABS	7.2 N/cm (66 oz/in) <sup>1</sup>
90° Peel Adhesion	Backside	Polypropylene (PP)	11 N/cm (97 oz/in) <sup>1</sup>

<sup>1</sup> 12 in/min (300 mm/min)

## Electrical and Thermal Properties

Attribute Name	Test Method	Value
Glass Transition Temperature (Tg)	ASTM E1356	-60 °C <sup>1</sup>

<sup>1</sup> Glass Transition Temperature (Tg) determined using DSC Analyzer with a heating rate of 4°C per minute. First heat values given.

## 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 18 months from date of manufacture.

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## **ISO Statement**

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

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