



# Technical Data Sheet

3M™ Double Coated Tape 9690+



[www.marianinc.com](http://www.marianinc.com)

1-800-773-0062

## Product Description

3M™ Double Coated Tape 9690+ with Acrylic Adhesive 300MP+ formulated for low fog characteristics. The 300MP+ adhesive is suitable for bonding to most substrates including foams, fabrics and substrates with rough or textured surfaces.

## 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 Thickness		Faceside	0.071 mm (2.8 mil) <sup>1</sup>
Adhesive Carrier			Clear PET
Carrier Thickness			0.013 mm (0.5 mil)
Adhesive Thickness		Backside	0.06 mm (2.3 mil) <sup>2</sup>
Total Tape Thickness	ASTM D3652		0.14 mm (5.5 mil)
Density			0.91 g/cm <sup>3</sup>

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

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

Attribute Name	Value
Liner	83# PCK
Liner Thickness	6.2 mil
Primary Liner Color	Tan
Liner Print	3M logo

## Typical Performance Characteristics

### 180° Peel Adhesion

Backing: 2 mil Aluminum Foil

Test Method: ASTM D3330

Dwell Time	Temperature	Substrate	Value
20 min	22 °C (72 °F)	Stainless Steel	6.1 N/cm (55 oz/in) <sup>1</sup>
72 h	22 °C (72 °F)	Stainless Steel	8.9 N/cm (81 oz/in) <sup>1</sup>
72 h	22 °C (72 °F)	ABS	4.7 N/cm (42 oz/in) <sup>1</sup>
72 h	22 °C (72 °F)	Polypropylene (PP)	4.6 N/cm (42 oz/in) <sup>1</sup>
72 h	70 °C (158 °F)	Stainless Steel	13.7 N/cm (124 oz/in) <sup>1</sup>
72 h	70 °C (158 °F)	ABS	8.1 N/cm (73 oz/in) <sup>1</sup>
72 h	70 °C (158 °F)	Polypropylene (PP)	54.5 N/cm (41 oz/in) <sup>1</sup>

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

## 90° Peel Adhesion

Backing: 2 mil Aluminum Foil

Test Method: ASTM D3330

Dwell Time	Temperature	Substrate	Value
20 min	22 °C (72 °F)	Stainless Steel	4.5 N/cm (40 oz/in) <sup>1</sup>
72 h	22 °C (72 °F)	Stainless Steel	8.4 N/cm (76 oz/in) <sup>1</sup>
72 h	22 °C (72 °F)	ABS	4.2 N/cm (38 oz/in) <sup>1</sup>
72 h	22 °C (72 °F)	Polypropylene (PP)	4.0 N/cm (36 oz/in) <sup>1</sup>
72 h	70 °C (158 °F)	Stainless Steel	13.4 N/cm (122 oz/in) <sup>1</sup>
72 h	70 °C (158 °F)	ABS	6.2 N/cm (56 oz/in) <sup>1</sup>
72 h	70 °C (158 °F)	Polypropylene (PP)	3.8 N/cm (35 oz/in) <sup>1</sup>

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

Substrate: Stainless Steel

Temperature: 22 °C (72 °F)

Test Condition: 1000g

Dwell Time: 72 h

Backing: 2 mil Aluminum Foil

Attribute Name	Test Method	Value
Static Shear	ASTM D3654	8,400 min <sup>1</sup>

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

Dwell Time: 1 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	Substrate	Value
180° Peel Adhesion	Stainless Steel	11.4 N/cm (104 oz/in) <sup>1</sup>
180° Peel Adhesion	ABS	5.2 N/cm (47 oz/in) <sup>1</sup>
180° Peel Adhesion	Polypropylene (PP)	4.8 N/cm (43 oz/in) <sup>1</sup>
90° Peel Adhesion	Stainless Steel	9.8 N/cm (89 oz/in) <sup>1</sup>
90° Peel Adhesion	ABS	4.3 N/cm (39 oz/in) <sup>1</sup>
90° Peel Adhesion	Polypropylene (PP)	3.7 N/cm (33 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 24 months from date of manufacture.

## Automotive Disclaimer

### Select Automotive 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](http://3M.com/iatd)

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