



# Technical Data Sheet

3M™ VHB™ Adhesive Transfer Tape  
F9460PC



Additional Info



Regulatory  
Info/SDS

## Product Description

3M™ VHB™ Adhesive Transfer Tape F9460PC utilizes the 3M™ High Performance Acrylic Adhesive 100MP, which has long term holding power with much higher adhesion strength than typical pressure sensitive adhesives.

## 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	Value
Adhesive Type		Acrylic
Total Tape Thickness	ASTM D3652	0.06 mm (2.3 mil)
Density		1.012 g/cm <sup>3</sup>
Liner		58# Polycoated Kraft Paper - PCK
Liner Print		3M VHB
Liner Thickness		0.106 mm (4.2 mil)

## Typical Performance Characteristics

Backing: 2 mil Aluminum Foil

Test Method: ASTM D3330

Attribute Name	Dwell Time	Temperature	Substrate	Value
180° Peel Adhesion	20 min	23 °C (73 °F)	Stainless Steel	8.20 N/cm (74.70 oz/in) <sup>1</sup>
180° Peel Adhesion	72 h	23 °C (73 °F)	Stainless Steel	9.50 N/cm (86.70 oz/in) <sup>1</sup>
180° Peel Adhesion	72 h	70 °C (158 °F)	Stainless Steel	12.80 N/cm (116.30 oz/in) <sup>1</sup>
90° Peel Adhesion	20 min	23 °C (73 °F)	Stainless Steel	8.50 N/cm (77.30 oz/in) <sup>1</sup>
90° Peel Adhesion	72 h	23 °C (73 °F)	Stainless Steel	9.80 N/cm (89.40 oz/in) <sup>1</sup>
90° Peel Adhesion	72 h	70 °C (158 °F)	Stainless Steel	14.40 N/cm (130.60 oz/in) <sup>1</sup>
180° Peel Adhesion	72 h	23 °C (73 °F)	ABS	7.20 N/cm (65.60 oz/in) <sup>1</sup>
180° Peel Adhesion	72 h	70 °C (158 °F)	ABS	5.80 N/cm (53.00 oz/in) <sup>1</sup>
90° Peel Adhesion	72 h	23 °C (73 °F)	ABS	6.50 N/cm (59.30 oz/in) <sup>1</sup>
90° Peel Adhesion	72 h	70 °C (158 °F)	ABS	5.10 N/cm (46.80 oz/in) <sup>1</sup>

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

Substrate: Stainless Steel  
Test Method: ASTM D3654

Attribute Name	Dwell Time	Temperature	Test Condition	Backing	Value
Static Shear	72 h	23 °C (73 °F)	1000 g	2 mil Aluminum Foil	10,000 min <sup>1</sup>
Static Shear	72 h	70 °C (158 °F)	500 g	2 mil Aluminum Foil	10,000 min <sup>1</sup>
Short Term Temperature Resistance			200 g		232 °C (450+ °F) <sup>2</sup>
Long Term Temperature Resistance			500 g		204 °C (400 °F) <sup>3</sup>

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

<sup>2</sup> Maximum temperature where tape supports indicated load per 6.5cm<sup>2</sup> (1 in<sup>2</sup>) in static shear for 60 minutes.

<sup>3</sup> Maximum temperature where tape supports indicated load per 6.5cm<sup>2</sup> (1 in<sup>2</sup>) in static shear for 10,000 minutes.

### **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	10.10 N/cm (91.80 oz/in) <sup>1</sup>
90° Peel Adhesion	Stainless Steel	10.20 N/cm (92.90 oz/in) <sup>1</sup>
180° Peel Adhesion	ABS	6.90 N/cm (62.40 oz/in) <sup>1</sup>
90° Peel Adhesion	ABS	6.30 N/cm (57.60 oz/in) <sup>1</sup>

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

### **Electrical and Thermal Properties**

Attribute Name	Test Method	Value
Glass Transition Temperature (Tg)	ASTM E1356	-38 °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**

Recommended storage in the original packaging at room temperature conditions of 60° to 80°F (16° - 22°C) and 50% relative humidity. Keep out of direct sunlight. Unconverted product has a shelf life of 24 months from date of manufacture.

### **Recognition/Certification**

**TSCA:** This product is defined as an article under the Toxic Substances Control Act and therefore, it is exempt from inventory listing requirements

**MSDS:** 3M has not prepared a MSDS for this product which is not subjected to the MSDS requirements of the Occupational Safety and Health Administration's Hazard Communication Standard, 29 C.F.R.1910.1200(b)(6)(v). When used under reasonable conditions or in accordance with the 3M directions for use, this product should not present a health and safety hazard. However, use or processing of the product in a manner not in accordance with the directions for use may affect its performance and present potential health and safety hazards.

**UL:** These products have been recognized by Underwriters Laboratories, Inc. under UL 746C and UL 969. For more

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### **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.