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English-EU

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Technical Data Sheet

3M™ Double Coated Tape 9731

Product Description

3M™ Double Coated Tape 9731 has a silicone pressure sensitive adhesive coated on one side of a polyester film carrier and a high performance acrylic adhesive coated on the other side of the carrier. Wind direction is silicone adhesive side on the outside of the roll.

Product Features

• Silicone adhesive bonds to Silicone Rubber and silicone products.
• 3M™ Adhesive 350 provides adhesion to a wide variety of substrates.
• A thin polyester carrier provides dimensional stability and improved handling with ease of die cutting and lamination compared to adhesive transfer tapes.

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		Silicone Side	0.07 mm
Adhesive Type		Silicone Side	Silicone
Adhesive Carrier			Clear PET (Polyester)
Carrier Thickness			0.02 mm
Adhesive Type		Acrylic Side	350 Acrylic Adhesive
Adhesive Thickness		Acrylic Side	0.04 mm
Total Tape Thickness	ASTM D3652		0.14 mm
Density			1.06 g/cm³

Attribute Name	Test Condition	Value
Liner	Silicone Side	Clear PET
Liner Thickness	Silicone Side	3 mil
Liner Print		None
Liner	Acrylic Side	Brown PCK
Liner Thickness	Acrylic Side	4.2 mil (58#)

Typical Performance Characteristics

90° Peel Adhesion

Backing: 2 mil Aluminum Foil
Test Method: ASTM D3330

Dwell Time	Temperature	Test Condition	Substrate	Value
20 min	23 °C	Silicone Side	Stainless Steel	4.9 N/cm [1]
72 h	23 °C	Silicone Side	Stainless Steel	5.4 N/cm [1]
72 h	70 °C	Silicone Side	Stainless Steel	4.3 N/cm [1]
72 h	23 °C	Silicone Side	ABS	3.7 N/cm [1]

Dwell Time	Temperature	Test Condition	Substrate	Value
72 h	23 °C	Silicone Side	Polypropylene (PP)	5.3 N/cm [1]
72 h	23 °C	Silicone Side	Glass	5.3 N/cm [1]
20 min	23 °C	Acrylic Side	Stainless Steel	6.5 N/cm [1]
72 h	23 °C	Acrylic Side	Stainless Steel	7.0 N/cm [1]
72 h	70 °C	Acrylic Side	Stainless Steel	10.8 N/cm [1]
72 h	23 °C	Acrylic Side	ABS	3.3 N/cm [1]
72 h	23 °C	Acrylic Side	Polypropylene (PP)	5.8 N/cm [1]
72 h	23 °C	Acrylic Side	Glass	7.9 N/cm [1]

[1] 304 mm/min (12 in/min)

180° Peel Adhesion

Backing: 2 mil Aluminum Foil
Test Method: ASTM D3330

Dwell Time	Temperature	Test Condition	Substrate	Value
20 min	23 °C	Silicone Side	Stainless Steel	4.6 N/cm [1]
72 h	23 °C	Silicone Side	Stainless Steel	4.8 N/cm [1]
72 h	70 °C	Silicone Side	Stainless Steel	5.9 N/cm [1]
72 h	23 °C	Silicone Side	ABS	3.4 N/cm [1]
72 h	23 °C	Silicone Side	Polypropylene (PP)	5.4 N/cm [1]
72 h	23 °C	Silicone Side	Glass	5.1 N/cm [1]
72 h	23 °C	Silicone Side	Silicone Rubber	6.1 N/cm [1]
20 min	23 °C	Acrylic Side	Stainless Steel	6.5 N/cm [1]
72 h	23 °C	Acrylic Side	Stainless Steel	8.6 N/cm [1]
72 h	70 °C	Acrylic Side	Stainless Steel	13.2 N/cm [1]
72 h	23 °C	Acrylic Side	ABS	4.2 N/cm [1]
72 h	23 °C	Acrylic Side	Polypropylene (PP)	7.3 N/cm [1]
72 h	23 °C	Acrylic Side	Glass	9.7 N/cm [1]

[1] 304 mm/min (12 in/min)

Static Shear

Substrate: Stainless Steel
Dwell Time: 72 h
Test Method: ASTM D3654

Temperature	Test Condition	Value
23 °C	1000 g, Silicone Side	10,000 min [1]
70 °C	500 g Silicone Side	946 min [1]
23 °C	1000 g, Acrylic Side	10,000 min [1]
70 °C	500 g Acrylic Side	10,000 min [1]

[1] 25 x 25 mm (1 in x 1 in) sample area, test terminated after 10,000 minutes

Typical Environmental Performance

Substrate: Stainless Steel
Temperature: 32 °C
Dwell Time: 72 h
Backing: 2 mil Aluminum Foil
Test Method: ASTM D3330
Environmental Condition: 90%RH

Attribute Name	Test Condition	Value
180° Peel Adhesion	Silicone Side	5.5 N/cm [1]
90° Peel Adhesion	Silicone Side	5.4 N/cm [1]
180° Peel Adhesion	Acrylic Side	10.5 N/cm [1]
90° Peel Adhesion	Acrylic Side	8.2 N/cm [1]

[1] 304 mm/min (12 in/min)

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.

Automotive Disclaimer

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.

Information

Precautionary Information: Refer to product label and Material Safety Data Sheet for health and safety information before using the product. For information, please contact your local 3M Office. You can click or scan QR code to see contact detail or visit www.3M.com Important Information: All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. However, many factors beyond 3M's control can affect the use and performance of a 3M product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method or application. All questions of liability relating to this product are governed by the terms of the sale subject, where applicable, to the prevailing law. Values presented have been determined by standard test methods and are average values not to be used for specification purposes. Our recommendations on the use of our products are based on tests believed to be reliable but we would ask that you conduct your own tests to determine their suitability for your applications. This is because 3M cannot accept any responsibility or liability direct or consequential for loss or damage caused as a result of our recommendations.

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