



## Technical Data Sheet

### 3M™ Low VOC Double Coated Tape 9599

#### **Product Description**

3M™ Low VOC Double Coated Tape 9599 has a non-woven tissue carrier with acrylic adhesive on both sides. It provides high adhesion to a wide variety of materials and is suitable for automobile interior applications

#### **Product Features**

- VOC analysis (micro g / pcs): measured at external organization which is approved by AOEM.

**Formaldehyde:**0.07

**Acetaldehyde:**0.07

**Toluene:**0.11

**Xylene:**0.02

**Ethylbenzene:**ND

**Styrene:**ND

**Tetradecane:**0.03

**Dibutyl phthalate:**ND

**Di-2-ethylhexyl phthalate:** ND

**Sample Size:**80mm x 100mm/pcs

**Dwell Temp:** 149°F (65°C)

**Dwell Time:**120 minutes

**Gas trapping volume:**4L with Tedlar bag

**Absorption pipe:**Tenax-TA, DNPH cartridge

Absorb air in tedlar bag with each absorption pipe after heating and measure with gas chromatograph mass spectrometer or high speed liquid chromatograph.

#### **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	0.114 mm (4.5 mil)
Liner Print		Low VOC
Liner		PCK
Liner Thickness		0.11 mm (4.5 mil)

#### **Typical Performance Characteristics**

Substrate: ABS

Temperature: 22 °C (72 °F)

Dwell Time: 72 h

Backing: 2 mil PET

Attribute Name	Test Method	Value
90° Peel Adhesion	ASTM D3330	9.9 N/cm (91 oz/in) <sup>1</sup>

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

Attribute Name	Value
Short Term Temperature Resistance	121 °C (250 °F) <sup>1</sup>
Long Term Temperature Resistance	93 °C (200 °F) <sup>2</sup>

<sup>1</sup> Short Term (minutes, hour)

<sup>2</sup> Long Term (day, weeks)

## **Handling/Application Information**

### **Application Techniques**

Bond strength is dependent upon the amount of adhesive-to-surface contact developed. Firm application pressure helps develop better adhesive contact and improve bond strength. 15 psi momentary pressure is typical.

Ideal tape application temperature range is 70°F to 100°F (21°C to 37°C). Initial tape application to surface at temperatures below 50°F (10°C) is not recommended because the adhesive becomes too firm to adhere readily. However, once applied, low temperature holding is generally satisfactory. Surfaces should be clean and dry prior to bonding. We recommend a final surface cleaning with a mixture of 50% isopropyl alcohol and water.

**Note:** Carefully read and follow the manufacturer's precautions and directions for use when using cleaning solvents.

### **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.

### **Available Sizes**

Attribute Name	Value
Available Width	1/40 in
Core Size (ID)	76.2 mm (3 in)
Maximum Length	10 — 100 yd
Normal Slitting Tolerance	±1/16 in
Note	Subject to Minimum Order Requirements
Precision Slitting Tolerance	0 — + 1/16 in <sup>1</sup>

<sup>1</sup> Precision slitting is available on select products with minimum order of full web increments.

### **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.

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## **ISO Statement**

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

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