



# **Technical Data Sheet**

3M<sup>™</sup> Low VOC Double Coated Tissue Tape DCX1018



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## **Product Description**

3M <sup>™</sup> Low VOC Double Coated Tissue Tape DCX1018 provides high bond strength to most surfaces without using an adhesive primer. The acrylic adhesive also has low odor / smell. **Note 1:**Faceside (FS) adhesive is on the interior of the roll, exposed when unwound. **Note 2:**Backside (BS) adhesive is on the exterior of the roll, exposed when liner is removed.

## **Product Features**

• This tape has a tissue carrier which can add dimensional stability to foams and other

substrates which makes it easier to handle the tape during slitting and die- cutting. • The bond strength of DCX1018 increases as a function of time and temperature, and has

very high initial adhesion.

## **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	<b>Physical</b>	<b>Properties</b>

Attribute Name	Test Method	Test Condition	Value
Adhesive Type			Acrylic
Adhesive Carrier			Tissue
Adhesive Thickness		Faceside	0.04 mm (1.7 mil) <sup>1</sup>
Carrier Thickness			0.04 mm (1.6 mil)
Adhesive Thickness		Backside	0.04 mm (1.7 mil) <sup>2</sup>
Total Tape Thickness	ASTM D3652		0.13 mm (5 mil)
Liner Print			Low VOC
Liner			РСК
Liner Thickness			0.1 mm (4.2 mil)
Primary Liner Color			White with Green Logo

1 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.

# **Typical Performance Characteristics**

Substrate: Stainless Steel Temperature: 22 °C (72 °F) Dwell Time: 72 h Backing: 2 mil Aluminum Foil

Attribute Name	Test Method	Value
180° Peel Adhesion	ASTM D3330	15.3 N/cm (140 oz/in) <sup>1</sup>

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

Attribute Name	Value
Short Term Temperature Resistance	149 °C (300 °F) <sup>1</sup>
Long Term Temperature Resistance	121 °C (250 °F) <sup>2</sup>

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

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

## **Typical Environmental Characteristics**

#### **Environmental Resistance**

Humidity Resistance:No adverse effect on the bond after exposed to 100% relative humidity at 100°F (38°C). High humidity has minimal effect on adhesive performance. No significant reduction in bond strength is observed after exposure for 7 days at 90°F (32°C) and 90% relative humidity.
UV Resistance:Adhesive is resistant to oxidation and ozone when exposed to air or ultraviolet light. When properly applied, nameplates and decorative trim parts are not adversely

affected by exposure. Water Resistance:Immersion in water has no appreciable effect on the bond strength. After 100 hours at room temperature, the high bond strength is maintained.

#### Handling/Application Information

#### **Application Examples**

- Automotive Interior bonding.
- Residential and commercial building floor bonding

#### **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. To obtain optimum adhesion, the bonding surfaces must be clean, dry and well unified. Some typical surface cleaning solvents are isopropyl alcohol or heptane.\* \*Note: Carefully read and follow the manufacturer's precautions and directions for use when using solvents. Ideal tape application temperature range is 60°F to 100°F (21°C to 38°C). Initial tape application to surfaces at temperatures below 50°F (10°C) is not recommended because the adhesive becomes too firm to adhere readily. However, once properly applied, low temperature holding is generally satisfactory.

#### 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:

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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