



# Technical Data Sheet

3M™ Double Coated Tape 3028EK



[Product Details](#)

## Product Description

**Finite Element Analysis (FEA)** data is available for this product at: [3m.com/FEA](https://www.3m.com/FEA)

3M™ Double Coated Tape 3028EK features a thin polyester film for dimensional stability and improved handling with ease of die-cutting and laminating. 3M™ Adhesive 350 is a medium-firm acrylic adhesive that provides a combination of high wet grab and initial adhesion and good shear holding power to a wide variety of materials, including many plastics.

## Product Features

- 3M™ Adhesive 350 is a firm acrylic adhesive that provides very high adhesion to a wide variety of materials, excellent shear holding power, high temperature resistance and excellent UV resistance.
- 3M™ Adhesive 350 provides exceptional temperature and chemical resistance and withstands tough application environment.
- This tape has a film carrier, which can add dimensional stability to substrates. The carrier also provides easier handling during slitting and die-cutting.
- 3M™ Double Coated Tape 3028EK has an extensible kraft liner which facilitates narrow slitting.

## 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 Type			350 Acrylic
Adhesive Carrier			Clear PET (Polyester)
Adhesive Thickness		Faceside	0.0058 mm (2.3 mil) <sup>1</sup>
Carrier Thickness			0.025 mm (1 mil)
Adhesive Thickness		Backside	0.058 mm (2.3 mil) <sup>2</sup>
Total Tape Thickness	ASTM D3652		0.14 mm (5.6 mil)
Liner			Extensible Kraft
Liner Thickness			0.14 mm (5.5 mil)
Primary Liner Color			White

<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.

## Typical Performance Characteristics

Substrate: Stainless Steel  
Temperature: 23 °C (73 °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> 304 mm/min (12 in/min)

## 90° Peel Adhesion

Backing: 2 mil Aluminum Foil

Test Method: ASTM D3330

Dwell Time	Temperature	Substrate	Value
15 min	23 °C (73 °F)	Stainless Steel	7.7 N/cm (71 oz/in) <sup>1</sup>
72 h	23 °C (73 °F)	ABS	8.1 N/cm (74 oz/in) <sup>1</sup>
72 h	23 °C (73 °F)	High Density Polyethylene (HDPE)	3.6 N/cm (33 oz/in) <sup>1</sup>
72 h	23 °C (73 °F)	Polycarbonate (PC)	6.5 N/cm (60 oz/in) <sup>1</sup>
72 h	23 °C (73 °F)	Polyester (PET)	8.4 N/cm (77 oz/in) <sup>1</sup>
72 h	23 °C (73 °F)	Polypropylene (PP)	4.8 N/cm (44 oz/in) <sup>1</sup>
72 h	23 °C (73 °F)	Stainless Steel	10.1 N/cm (93 oz/in) <sup>1</sup>
72 h	70 °C (158 °F)	Stainless Steel	13.2 N/cm (121 oz/in) <sup>1</sup>

<sup>1</sup> 304 mm/min (12 in/min)

## Static Shear

Temperature: 23 °C (73 °F)

Test Method: ASTM D3654

Test Condition	Value
500 g	10,000 min <sup>1</sup>
1000 g	10,000 min <sup>1</sup>

<sup>1</sup> 13 x 25 mm (0.5 x 1 in) sample area, test terminated at 10,000 minutes

Attribute Name	Value
Short Term Temperature Resistance	177 °C (350 °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 Examples

- Dissimilar materials joining, such as metal to plastic.
- High performance joining and bonding.
- 3M tape 3028EK for applications which use narrow slit, level wound roll.

## Application Techniques

Bond strength is dependent upon the amount of adhesive-to-surface contact developed. Firm application pressure helps develop better adhesive contact and improves 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.\*

Ideal tape application temperature range is 70°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.

\*Carefully read and follow the manufacturer's precautions and directions for use when working with solvents.

## Application Equipment

To apply adhesives in a wide web format, lamination equipment is required to ensure acceptable quality. To learn more about working with pressure-sensitive adhesives please refer to technical bulletin, Lamination Techniques for Converters of Laminating Adhesives (70-0704-1430-8).

For additional dispenser information, contact your local 3M sales representative, or the toll free 3M sales assistance number at 1-800-362-3550.

## 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	Width	Value
Core Size (ID)		76.2 mm (3 in)
Maximum Available Width		1220 mm (48 in)
Maximum Length	1/4in - 1/2in	132 m (144 yd)
Maximum Length	1/2 in to 48 in	329 m (360 yd)
Minimum Available Width		6.35 mm (1/4 in)
Normal Slitting Tolerance		0.8 mm (±1/32 in)
Note		Subject to Minimum Order Requirements
Standard Roll Length		33 m (36 yd)

## Recognition/Certification

**MSDS:**3M has not prepared a MSDS for these products which are not subject 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, the products should not present a health and safety hazard. However, use or processing of the products in a manner not in accordance with the directions for use may affect their performance and present potential health and safety hazards.

**TSCA:**These products are defined as articles under the Toxic Substances Control Act and therefore, are exempt from inventory listing requirements.

## 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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