

# Technical Data Sheet

## 3M™ Polyolefin Bonding Adhesive 3731



[Product Details](#)



[Regulatory Info/SDS](#)

### Product Description

3M™ Polyolefin Bonding Adhesive 3731 is a 100% solids, high heat resistant adhesive that bonds to a variety of substrates including polyethylene, polypropylene and many other plastics.

### Product Features

- Solvent free, 100% solids
- High temperature resistance
- Bonds well to polyolefin based plastics
- Light tan color
- Fast setting

### 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	Temperature	Value
Color			Light Tan
Flash Point			273 °C (525 °F) <sup>1</sup>
Ball & Ring	ASTM E-28-607		157 °C (315 °F)
Specific Gravity			0.92
Viscosity		191 °C (375 °F)	12,000 cP <sup>2</sup>

<sup>1</sup> C.O.C.

<sup>2</sup> Brookfield Thermocel Viscometer in Centipoise using a #27 Spindle @ 10 RPM.

### Typical Performance Characteristics

#### 180° Peel Adhesion

Temperature: 22 °C (72 °F)

Substrate	Value
ABS	40 N/cm (368 oz/in) <sup>1</sup>
Cold Rolled Steel	26 N/cm (240 oz/in) <sup>1</sup>
High Density Polyethylene (HDPE)	40 N/cm (368 oz/in) <sup>1</sup>
Nylon	33 N/cm (304 oz/in) <sup>1</sup>
Polycarbonate (PC)	39 N/cm (352 oz/in) <sup>1</sup>
Polypropylene (PP)	39 N/cm (352 oz/in) <sup>1</sup>
Polystyrene (HIPS)	26 N/cm (240 oz/in) <sup>1</sup>
Polyvinyl chloride (PVC)	32 N/cm (288 oz/in) <sup>1</sup>

<sup>1</sup> Peel bonds of cotton duck were tested at a peel angle of 180° @ 2in/min separation rate @RT. The value listed is the average force required to peel the canvas from the substrates in pounds per inch of bond width (PIW).

## Overlap Shear Strength

Temperature: 22 °C (72 °F)

Substrate	Value
High Density Polyethylene (HDPE)	30 kg/cm <sup>2</sup> (420 lb/in <sup>2</sup> )
ABS	32 kg/cm <sup>2</sup> (450 lb/in <sup>2</sup> )
P.V.C. (Rigid)	30 kg/cm <sup>2</sup> (430 lb/in <sup>2</sup> )
Polystyrene (HIPS)	18 kg/cm <sup>2</sup> (257 lb/in <sup>2</sup> )
Polycarbonate (PC)	30 kg/cm <sup>2</sup> (430 lb/in <sup>2</sup> )
Nylon	33 kg/cm <sup>2</sup> (475 lb/in <sup>2</sup> )
Douglas Fir	35 kg/cm <sup>2</sup> (490 lb/in <sup>2</sup> )
Cold Rolled Steel	27 kg/cm <sup>2</sup> (390 lb/in <sup>2</sup> )

## Temperature Resistance

Temperature	Value
129 °C (265 °F)	0.14 kg/cm <sup>2</sup> (2 lb/in <sup>2</sup> )
135 °C (275 °F)	0.07 kg/cm <sup>2</sup> (1 lb/in <sup>2</sup> )
152 °C (305 °F)	0.02 kg/cm <sup>2</sup> (0.33 lb/in <sup>2</sup> )

## Handling/Application Information

### Directions for Use

1. 3M™ Polyolefin Bonding Adhesive 3731 is designed for applications using a 3M™ Polygun™ EC Applicator at the 4 or 5 module setting or a 3M™ Polygun™ II Applicator.
2. Recommended equipment temperature for bulk dispensing 350-375°F (177-191°C).
3. Apply to one surface. Make bond as soon as possible. Bond strength is maximized when open time is reduced.
4. After bond is made, there is immediate strength and no clamping is necessary.
5. Adhesive should be allowed to fully crystallize (possibly up to 12 hours) to obtain full performance properties.

## 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.

## Precautionary Information

Refer to Product Label and Material Safety Data Sheet for health and safety information before using this product. For additional health and safety information, call 1-800-364-3577

## Information

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## **ISO Statement**

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

## **For Additional Information**

To request additional product information or to arrange for sales assistance, call toll free 1-800-362-3550 or visit [www.3M.com/adhesives](http://www.3M.com/adhesives).

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