

Technical data sheet



Product: 3731

Manufacturer: 3M DEUTSCHLAND GMBH

Product group: KLEBSTOFF

Article group: SCHMELZKLEBSTOFF

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3M™ POLYOLEFIN BONDING ADHESIVE 3731

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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) ¹
Ball & Ring	ASTM E-28-607		157 °C (315 °F)
Specific Gravity			0.92
Viscosity		191 °C (375 °F)	12,000 cP ²

¹ C.O.C.

² 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	368 oz/in ¹
Cold Rolled Steel	240 oz/in ¹
High Density Polyethylene (HDPE)	368 oz/in ¹
Nylon	304 oz/in ¹
Polycarbonate (PC)	352 oz/in ¹
Polypropylene (PP)	352 oz/in ¹
Polystyrene (High Impact)	240 oz/in ¹
Polyvinyl chloride (PVC)	288 oz/in ¹

¹ 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)	420 lb/in ²
ABS	450 lb/in ²
P.V.C. (Rigid)	430 lb/in ²
Polystyrene (High Impact)	257 lb/in ²
Polycarbonate (PC)	430 lb/in ²
Nylon	475 lb/in ²
Douglas Fir	490 lb/in ²
Cold Rolled Steel	390 lb/in ²

Temperature Resistance

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

Handling/Application Information

Directions for Use

1. 3M™ Polyolefin Bonding Adhesive 3731 is designed for applications using a 3M™ Polygon™ 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 product below 120°F (49°C).

When stored at the recommended conditions, this product has a shelf life of 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 or (651) 737-6501.

Information

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ISO Statement

This Industrial Adhesives and Tapes Division 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. Address correspondence to: 3M Engineered Adhesives Division, 3M Center, Building 220-7E-01, St. Paul, MN 55144-1000. Our fax number is 651-733-9175. In Canada, phone: 1-800-364-3577. In Puerto Rico, phone: 1-787-750-3000. In Mexico, phone: 52-70-04-00.

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