

3M™ Polyolefin Bonding Adhesive 3731

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



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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 Uncured Physical Properties

Color: Light Tan

Typical Physical Properties

Property	Values		Notes	Test Condition	Method
Flash Point	273 °C	525 °F	C.O.C.		
Viscosity	12,000 cP		Brookfield Thermocel Viscometer in Centipoise using a #27 Spindle @ 10 RPM.	375°F(191°C)	
Specific Gravity	0.92				
Impact Resistance	80 in.lb			Room Temperature	ASTM D2444
Ball & Ring	157 °C	315 °F			ASTM E-28-607
Bonding Range	25 to 30 s		1/8" semicircular bead, Douglas Fir to Douglas Fir.		

Typical Performance Characteristics

Heat Resistance		Test Condition
0.02 kg/cm ²	0.33 lb/in ²	305°F (152°C)
0.07 kg/cm ²	1 lb/in ²	275°F (135°C)
0.14 kg/cm ²	2 lb/in ²	265°F (129°C)

Property: Heat Resistance

Overlap Shear Strength	Substrate
550 lb/in ²	Polypropylene (PP)
420 lb/in ²	High Density Polyethylene (HDPE)
450 lb/in ²	ABS
430 lb/in ²	P.V.C. (Rigid)
257 lb/in ²	Polystyrene (High Impact)
430 lb/in ²	Polycarbonate (PC)

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Typical Performance Characteristics (continued)

Overlap Shear Strength	Substrate
475 lb/in ²	Nylon 66
490 lb/in ²	Douglas Fir
390 lb/in ²	Cold Rolled Steel

Property: Overlap Shear Strength

180° Peel Adhesion	Substrate
352 oz/in	Polypropylene (PP)
368 oz/in	High Density Polyethylene (HDPE)
368 oz/in	ABS
288 oz/in	P.V.C. (Rigid)
240 oz/in	Polystyrene (High Impact)
352 oz/in	Polycarbonate (PC)
304 oz/in	Nylon 66
240 oz/in	Cold Rolled Steel

Property: 180° Peel Adhesion

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 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.

References

1. 3m.com Product Page
Url: https://www.3m.com/3M/en_US/company-us/all-3m-products/~ /3M-Hot-Melt-Adhesive-3731?N=5002385+3293242446&rt=rud
2. Safety Data Sheet
Url: https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=3731

ISO Statement

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001 standards.

Important Notice

3M MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of application. Please remember that many factors can affect the use and performance of a 3M product in a particular application. The materials to be bonded with the product, the surface preparation of those materials, the product selected for use, the conditions in which the product is used, and the time and environmental conditions in which the product is expected to perform are among the many factors that can affect the use and performance of a 3M product. Given the variety of factors that can affect the use and performance of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method of application.

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.

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.

Product Selection and Use

Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. As a result, customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's application, including conducting a workplace hazard assessment and reviewing all applicable regulations and standards (e.g., OSHA, ANSI, etc.). Failure to properly evaluate, select, and use a 3M product and appropriate safety products, or to meet all applicable safety regulations, may result in injury, sickness, death, and/or harm to property.

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