

Technical Data Sheet

3M™ Hot Melt Adhesive 3747



Product Details



Regulatory Info/SDS

Product Description

3M™ Hot Melt Adhesives are heat applied, 100% solids adhesives. 3M™ Hot Melt 3747 is a thermoplastic adhesive to bond to wide variety of substrates such as wood, plastic, vinyl, metal and glass.

- General purpose adhesive for bonding dissimilar substrates such as wood to plastic, fabric to metal.

Product Features

- 100% solids, no VOCs
- Easy to use
- Long open times allow for easy use on large assemblies and large surfaces
- Adhesive sets and obtains strength in seconds
- Creates high performance bonds
- Ideal for woodworking and general industrial applications.

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	Substrate	Value
Color				Tan
Density				0.97 g/cm ³ (0.035 lb/in ³)
Open Time			OSB	45 s ¹
Flash Point	ASTM D92-72			265 °C (509 °F) ²
Delivery Time				45 s ³
Viscosity		191 °C (375 °F)		4,100 cP ⁴

¹ Open time is the max time between the application of the adhesive and joining the parts. Data based on 3.2 mm (1/8 in) semicircular bead on non-metallic substrates at 24 °C (75 °F). Higher environmental temperatures and/or larger beads will lengthen open times.

² Cleveland Open Cup

³ Extrusion time for one 25 x 76 mm (1 x 3 in) PG cartridge.

⁴ Brookfield Thermocel Viscometer in Centipoise using a #27 Spindle @ 10 RPM.

Typical Performance Characteristics

Attribute Name	Test Method	Temperature	Substrate	Value
180° Peel Adhesion		23 °C (73 °F)	Flexible canvas bonded to Douglas Fir	320 oz/in
Overlap Shear Strength		23 °C (73 °F)	Douglas Fir	430 lb/in ²
Ball & Ring Melt Point	ASTM E28-67			104 °C (220 °F)

Attribute Name	Value
Application Temperature	177 — 196 °C (350 — 385 °F) ¹
Temperature Resistance	63 °C (145 °F) ²

¹ Recommended application temperature range. Temperature can be adjusted to regulate desired viscosity, delivery rate and pot life.

² Highest temperature that the adhesive will support a 14 kPa (2 psi) dead load

Handling/Application Information

Directions for Use

1. Surface Preparation: Surfaces must be clean, dry and dust free. Wipe with a solvent such as isopropyl alcohol for plastic, metal and glass substrates to remove oil and dirt.*

*Note: When using solvents, extinguish all ignition sources, including pilot lights, and follow the manufacturer's precautions and directions for use.

2. Application: 3M™ Hot Melt Adhesives are designed for application with a 3M™ Hot Melt Applicators. Read and follow the precautions and directions for use in the user's manual before operating the applicator. 3M™ Hot Melt Adhesives are applied at 350-385°F. Adhesives yield approximately 430 linear feet per pound of adhesive when extruded as a 1/8" diameter semi-circular bead. Extruded bead sizes can be customized using 3M™ applicator tips.

3. Coverage: 3M™ Hot Melt Adhesives yield approximately 430 linear feet per pound of adhesive when extruded as a 1/8" diameter semi-circular bead.

4. Set up time: After the bond is made, 3M™ Hot Melt Adhesives immediately build strength and no clamping is necessary. Set will occur faster on cold or metallic substrates.

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 - Detailed

5/8 in x8 in Q
5/8 in x2 in TC
1 in x3 in PG
1/2 in x12 in AE

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.

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