



Technical Data Sheet

3M™ Hot Melt Adhesive 3748

Product Description

3M™ Hot Melt Adhesives are 100% solids, thermoplastic resins that become fluid when heated and quickly wet the bonding surface. They cool, harden and reach bond strength in seconds, keeping production flowing by eliminating clamps, fixturing and drying, and saving time energy and space.

3M™ Hot Melt Adhesive 3748 bonds to a wide variety of substrates such as wood, plain and coated corrugated, fabrics and foams, plastics, and other lightweight materials.

- Designed especially for low surface energy plastics and coatings such as polyolefins. Good high temperature stability and thermal shock resistance.

Product Features

- 100% solids, no VOCs
- Easy to use
- Adhesive obtains strength in seconds
- Designed for plastics and polyolefin bonding, including ABS, PVC, polycarbonate, polypropylene and polyethylene

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				0.93 g/cm ³
Open Time			OSB	45 s ¹
Flash Point	ASTM D92-72			280 °C ²
Delivery Time				65 s ³
Viscosity		191 °C		5,000 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	Flexible canvas bonded to Douglas Fir	32 N/cm
Overlap Shear Strength		23 °C	Douglas Fir	1.7 MPa
Ball & Ring Melt Point	ASTM E28-67			144 °C

Attribute Name	Value
Application Temperature	177 — 196 °C ¹
Temperature Resistance	79 °C ²

Attribute Name	Value
Softening Point	145 °C

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 substrates to aid in removing 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.

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

4. Set 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.

Industry Specifications

UL 94 - V2

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
Bulk

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

Precautionary Information: Refer to product label and Material Safety Data Sheet for health and safety information before using the product. For information, please contact your local 3M Office. You can click or scan QR code to see contact detail or visit www.3M.com Important Information: All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. However, many factors beyond 3M's control can affect the use and performance of a 3M product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors 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 or application. All questions of liability relating to this product are governed by the terms of the sale subject, where applicable, to the prevailing law. Values presented have been determined by standard test methods and are average values not to be used for specification purposes. Our recommendations on the use of our products are based on tests believed to be reliable but we would ask that you conduct your own tests to determine their suitability for your applications. This is because 3M cannot accept any responsibility or liability direct or consequential for loss or damage caused as a result of our recommendations.

ISO Statement

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

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