

Technical Data Sheet

3M™ Hot Melt Adhesive 3738



[Product Details](#)



[Regulatory Info/SDS](#)

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 3738 is a thermoplastic adhesive with low to medium viscosity and long open times. It bonds to wide a variety of substrates such as wood, plain and coated corrugated, sand cores, foams, many plastics, and other lightweight materials.

- General purpose bonder with low temperature dispensing.

Product Features

- 100% Solids, no VOCs
- Easy to use
- Long open times allow for ease use on large assemblies and large surfaces
- Adhesive sets and obtains strength in seconds
- Low Melt (LM) adhesives are designed for low temperature application and heat sensitive substrates
- 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				0.95 g/cm ³ (0.034 lb/in ³)
Open Time			OSB	50 s ¹
Flash Point	ASTM D92-72			288 °C (550 °F) ²
Delivery Time				35 s ³
Viscosity		191 °C (375 °F)		2,875 cP ⁴

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

² Cleveland Open Cup

³ Extrusion time for one 1"x3" PG cartridge.

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

Typical Performance Characteristics

Temperature: 22 °C (72 °F)

Attribute Name	Substrate	Value
180° Peel Adhesion	Flexible canvas bonded to Douglas Fir	208 oz/in
Overlap Shear Strength	Douglas Fir	375 lb/in ²

Attribute Name	Test Method	Value
Temperature Resistance		54 °C (130 °F) ¹
Application Temperature		177 — 196 °C (350 — 385 °F) ²
Ball & Ring Melt Point	ASTM E28-67	86 °C (186 °F)

- ¹ Highest temperature that the adhesive will support a 2 psi dead load
- ² Recommended application temperature range. Temperature can be adjusted to regulate desired viscosity, delivery rate and pot life.

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, except the Low Melt (LM) series which are designed to be applied at 250-275°F. LM series are adhesives designed for lower temperature application but still yield long-lasting bonds. 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.

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
1/2 in x12 in AE
1/8 in 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

Technical Information: The technical information, guidance, and other statements contained in this document or otherwise provided by 3M are based upon records, tests, or experience that 3M believes to be reliable, but the accuracy, completeness, and representative nature of such information is not guaranteed. Such information is intended for people with knowledge and technical skills sufficient to assess and apply their own informed judgment to the information. No license under any 3M or third party intellectual property rights is granted or implied with this information.

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.

Warranty, Limited Remedy, and Disclaimer: Unless a different warranty is specifically stated on the applicable 3M product packaging or product literature (in which case such warranty governs), 3M warrants that each 3M product meets the applicable 3M product specification at the time 3M ships the product. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE. If a 3M product does not conform to this warranty, then the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price. Warranty claims must be made within one (1) year from the date of 3M's shipment.

Limitation of Liability: Except for the limited remedy stated above, and except to the extent prohibited by law, 3M will not be liable for any loss or damage arising from or related to the 3M product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability.

Disclaimer: 3M industrial and occupational products are intended, labeled, and packaged for sale to trained industrial and occupational customers for workplace use. Unless specifically stated otherwise on the applicable product packaging or literature, these products are not intended, labeled, or packaged for sale to or use by consumers (e.g., for home, personal, primary or secondary school, recreational/sporting, or other uses not described in the applicable product packaging or literature), and must be selected and used in compliance with applicable health and safety regulations and standards (e.g., U.S. OSHA, ANSI), as well as all product literature, user instructions, warnings, and limitations, and the user must take any action required under any recall, field action or other product use notice. Misuse of 3M industrial and occupational products may result in injury, sickness, or death. For help with product selection and use, consult your on-site safety professional, industrial hygienist, or other subject matter expert. For additional product information,

visit www.3M.com.

ISO Statement

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

3M™ Industrial Adhesives and Tapes Division
3M Center, St. Paul, MN 55144-1000
3M.com/iatd

3M is a trademark of 3M.
©3M 2024 (6/24)