



Technical Data Sheet

3M™ Hot Melt Adhesive 3738

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

Property	Values	Additional Information
Open Time	50 s	View
Substrate: OSB		
Notes: 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.		
Density	0.95 g/cm ³	
Density	0.034 lb/in ³	
Flash Point	288 °C	View
Test Method: ASTM D92-72		
Notes: Cleveland Open Cup		
Flash Point	550 °F	View

Test Method: ASTM D92-72

Notes: Cleveland Open Cup

Viscosity	2875 cP	View 
Notes: Brookfield Thermocel Viscometer in Centipoise using a #27 Spindle @ 10 RPM.		

Delivery Time	35 s	View 
Notes: Extrusion time for one 1"x3" PG cartridge.		

UL Listing	UL94 - V2	
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Typical Uncured Physical Properties


Property	Values	Additional Information
Color (solid)	Tan	


Typical Performance Characteristics


Property	Values	Additional Information
180° Peel Adhesion	208 oz/in	View 


Substrate: Flexible canvas bonded to Douglas Fir

Application Temperature C	177 to 196 °C	View 
Notes: Recommended application temperature range. Temperature can be adjusted to regulate desired viscosity, delivery rate and pot life.		

Application Temperature F	350 to 385 °F	View 
Notes: Recommended application temperature range. Temperature can be adjusted to regulate desired viscosity, delivery rate and pot life.		



Overlap Shear Strength	375 lb/in ²	View 
Substrate: Douglas Fir		

Temperature Resistance	54 °C	View 
Notes: Highest temperature that the adhesive will support a 2 psi dead load		

Temperature Resistance	130 °F	View 
Notes: Highest temperature that the adhesive will support a 2 psi dead load		

Ball & Ring Melt Point	86 °C	View 
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Test Method: ASTM E28-67

Ball & Ring Melt Point	186 °F	View 
Test Method: ASTM E28-67		
FDA Indirect Food Contact	21 CFR 175.105	View 

Notes: Permitted for indirect food contact subject to the limitations in applicable CFR section(s).

Available Sizes

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

Storage and Shelf Life

Store below 120°F (49°C).

When stored at the recommended conditions, this product has a shelf life of 24 months from the date of manufacture.

Industry Specifications

UL 94 - V2

Bottom Matter

3M

Industrial Adhesives and Tapes Division

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Trademarks

3M is a trademark of 3M.

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.

References

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/p/d/b40065543/
Safety Data Sheet SDS	https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=3738

Family Group

Link Tags:

- 3776LM
- 3792LM
- 3738
- 3792

Products	Open Time
3738	50 s
3776LM	40 s
3792	50 s
3792LM	N/A

ISO Statement

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

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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