

July, 2016

3M[™] Hot Melt Adhesive 3792

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 3792 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.

•Low viscosity and long open time for high flow rates, thin bonds, and repositionability.

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.



3M[™] Hot Melt Adhesive 3792

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 (solid): Clear

Typical Physical Properties

Property	Values		Method	Notes	Test Condition	Substrate
Density	0.95 g/cm³	0.034 lb/in³				
Flash Point	>232 °C	>450 °F	ASTM D92-72	Cleveland Open Cup		
Viscosity	5000 cP			Brookfield Thermocel Viscometer in Centipoise using a #27 Spindle @ 10 RPM.	375°F(191°C)	
Delivery Time	45 s			Extrusion time for one 1"x3" PG cartridge.		
UL Listing	UL94 - V2					
Open Time	50 s			Open time is the maximum time between the application of the adhesive and when the parts must be joined together. Data based on 1/8" semicircular bead on non-metallic substrates at 75°F. Higher environmental temperatures and/or larger beads will lengthen open times.		OSB

Typical Performance Characteristics

Property	Values		Substrate	Notes	Method
180° Peel Adhesion	208 oz/in		Flexible canvas bonded to Douglas Fir		
Application Temperature	177 to 196 °C	350 to 385 °F		Recommended application temperature range. Temperature can be adjusted to regulate desired viscosity, delivery rate and pot life.	
Overlap Shear Strength	250 lb/in²		Douglas Fir		

Table continued on next page

Typical Performance Characteristics (continued)

Property	Values		Substrate	Notes	Method
Temperature Resistance	60 °C	140 °F		Highest temperature that the adhesive will support a 2 psi dead load	
Ball & Ring Melt Point	81 °C	179 °F			ASTM E28-67
FDA Indirect Food Contact	21 CFR 175.105			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

Handling/Application Information

Directions for Use

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.
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.

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

Trademarks

3M is a trademark of 3M.

3M[™] Hot Melt Adhesive 3792

References

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/company-us/all-3m-products/~/3M-Hot- Melt-Adhesive-3792/?N=5002385+3293273674&rt=rud
Safety Data Sheet SDS	https://www.3m.com/3M/en_US/company-us/SDS-search/results/? gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=3792

Family Group

	3776LM	3792LM	3738	3792
Open Time (s) Substrate: OSB	40	40	50	50

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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