

July, 2016

3M™ Hot Melt Adhesive 3748

Product Description

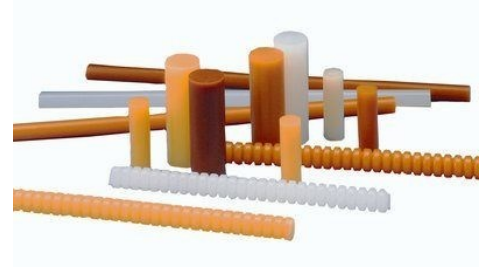
3M™ Hot Melt Adhesives are 100% solids, thermoplastic resins that become fluid when heated and quickly wet the bonding surface. They cool, harden and reach bond strength in seconds, keeping production flowing by eliminating clamps, fixturing and drying, and saving time energy and space.

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 Uncured Physical Properties

Color (solid): Ou White

Typical Physical Properties

Property	Values		Method	Notes	Test Condition
Density	0.93 g/cm ³	0.034 lb/in ³			
Flash Point	280 °C	536 °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)
Open Time	45 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.	
Delivery Time	65 s			Extrusion time for one 1"x3" PG cartridge.	
UL Listing	UL 94 - V2				

Typical Performance Characteristics

Property	Values		Notes	Substrate	Method
180° Peel Adhesion	288 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/in ²			Douglas Fir	

Table continued on next page

Typical Performance Characteristics (continued)

Property	Values		Notes	Substrate	Method
Temperature Resistance	79 °C	175 °F	Highest temperature that the adhesive will support a 2 psi dead load		
Ball & Ring Melt Point	144 °C	292 °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
- Bulk

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.

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 3748

References

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/company-us/all-3m-products/~/3M-Hot-Melt-Adhesive-3748?N=5002385+3293241260&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=3748

Family Group

	3764	3748
Open Time (s)	40	45

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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