Technical data sheet



Product: 3764, 3748

Manufacturer: 3M DEUTSCHLAND GMBH

Product group: **KLEBSTOFF**

Article group: **SCHMELZKLEBSTOFF**

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3M™ HOT MELT ADHESIVE 3764, 3748

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Hot Melt Adhesive

3764 • 3748

Technical Data July, 2016

Product Description

3MTM 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.

3MTM Hot Melt Adhesive 3764 and 3748 bond to a wide variety of substrates such as wood, plain and coated corrugated, fabrics and foams, plastics, and other lightweight materials.

3MTM Hot Melt Adhesive 3764

Excellent general plastics bonder with low

temperature flexibility.

3MTM Hot Melt Adhesive 3748

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

shock resistance.

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

Typical Physical Properties

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

	3M™ Hot Melt Adhesive		
	3764	3748	
Color (solid)	Clear	Off White	
Density (g/cm ³)	0.95	0.93	
Flashpoint (°F) ¹	514	536	

⁽¹⁾ Cleveland Open Cup ASTM D92-72

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: 3MTM Hot Melt Adhesives are designed for application with a 3MTM Hot Melt Applicators. Read and follow the precautions and directions for use in the user's manual before operating the applicator. 3MTM Hot Melt Adhesives are applied at 350-385°F.

Extruded bead sizes can be customized using 3MTM applicator tips.

Directions for Use (continued)

- **3. Coverage:** 3MTM 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, 3MTM Hot Melt Adhesives immediately build strength and no clamping is necessary. Set will occur faster on cold or metallic substrates.

Typical Application Properties

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

	3M TM Hot Melt Adhesive	
	3764	3748
Application Temperature ¹	350-385°F/ 177-196°C	350-385°F/ 177-196°C
Viscosity (CPS) ²	6,000 @ 375°F	5,000 @ 375°F
Open Time (seconds) ³	40	45
Delivery Time (seconds) ⁴	55	65
Available sizes/forms	5/8"x8"Q 5/8"x2" TC 1"x3" PG 1/2"x12"AE 1/8" Bulk	5/8"x8"Q 5/8"x2" TC 1"x3" PG Bulk

- (1) Recommended application temperature range. Temperature can be adjusted to regulate desired viscosity, delivery rate and pot life.
- (2) Brookfield Thermocel Viscometer in Centipoise using a #27 Spindle @ 10 RPM.
- (3) 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.
- (4) Extrusion time for one 1"x3" PG cartridge.

Typical Performance Properties Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

	3M TM Hot Melt Adhesive	
	3764	3748
Heat Resistance ¹	140°F/ 60°C	175°F/ 79°C
Ball & Ring Melt Point ²	190°F/ 88°C	292°F/ 144°C
Shear Strength ³	390 psi	250 psi
Peel Strength ⁴	14 pwi	18 pwi
UL94 Listing	V2	V2
FDA Indirect Food Contact ⁵	21 CFR 175.105	21 CFR 175.105

- (1) Highest temperature that the adhesive will support a 2 psidead load.
- (2) ASTM E28-67.
- (3) Douglas Fir to Douglas Fir.
- (4) Canvas to Douglas Fir.
- (5) Permitted for indirect food contact subject to the limitations in applicable CFR section(s).

3MTM Hot Melt Adhesive

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Storage	Store product below 120°F (49°C).		
Shelf Life	When stored at the recommended conditions, this product has a shelf life of 2 years after 3M ships the product to a customer or distributor.		
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		
Product Use	All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. How ever, many factors beyond 3Ms 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 know ledge 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 of application.		
Warranty and Limited Remedy	Unless stated otherwise in 3Ms product literature, packaging inserts or product packaging for individual products, 3Mw arrants that each 3Mproduct meets the applicable specifications at the time 3M ships the product. Individual products may have additional or different warranties as stated on product literature, package inserts or product packages. 3MMAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. User is responsible for determining whether the 3Mproduct is fit for a particular purpose and suitable for user's application. If the 3Mproduct is defective within the w arranty period, your exclusive remedy and 3Ms and seller's sole obligation will be, at 3Ms option, to replace the product or refund the purchase price.		
Limitation of Liability	Except where prohibited by law, 3Mand seller will not be liable for any loss or damage arising from the 3M product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability.		

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001: 2000 standards.

3M

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