

Technical data sheet



Product: 3764, 3748

Manufacturer: 3M DEUTSCHLAND GMBH

Product group: KLEBSTOFF

Article group: SCHMELZKLEBSTOFF

Download: 27.04.2024

3M™ HOT MELT ADHESIVE 3764, 3748

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3M

Hot Melt Adhesive

3764 • 3748

Technical Data

July, 2016

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 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.

3M™ Hot Melt Adhesive 3764 Excellent general plastics bonder with low temperature flexibility.

3M™ 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/cm³) | 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: 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.

3M™ Hot Melt Adhesive

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Directions for Use (continued)

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.

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™ Hot Melt Adhesive | |
|--|---|--|
| | 3764 | 3748 |
| Application Temperature¹ | 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™ Hot Melt Adhesive | |
|---|-----------------------|----------------|
| | 3764 | 3748 |
| Heat Resistance¹ | 140°F/ 60°C | 175°F/ 79°C |
| Ball & Ring Melt Point² | 190°F/ 88°C | 292°F/ 144°C |
| Shear Strength³ | 390 psi | 250 psi |
| Peel Strength⁴ | 14 pwi | 18 pwi |
| UL94 Listing | V2 | V2 |
| FDA Indirect Food Contact⁵ | 21 CFR 175.105 | 21 CFR 175.105 |

(1) Highest temperature that the adhesive will support a 2 psi dead 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).

3M™ 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. |
| Pre cautionary 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 |
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