Application Success with 3M™ Hot Melt Adhesives

3M™ Hot Melt Adhesives offer many benefits for success with a variety of assembly and/or closure applications.

Open time or bonding range is the maximum time between applying adhesive and joining the surfaces. With 3M™ Hot Melt Adhesives you have wide latitude in bonding range selection to meet your process needs.

Speed and Ease
Move assemblies immediately and eliminate clamps, fixturing and drying time and energy. Each adhesive is engineered for efficient application with an easy-to-use 3M portable applicator. Minimal operator training.

Flexibility

Durable

Appeals

Bonds Variety of Surfaces

3M™ Hot Melt Adhesives are applied as a molten liquid, so they quickly fill gaps and wet the entire bonding surfaces. As a result, they often exceed 100 psi (689 kPa) shear strength, quickly giving your application fast, convenient strength. Select from many options to fit your specific application — including peel-resistant or highly heat-resistant options.

Unlike mechanical fasteners and sealing tapes, hot-melt adhesive is virtually invisible between the mating surfaces. Since hot melts are dispensed as liquids, it is easy to apply exactly where adhesive is needed.

You can combine a wide variety of materials ranging from wood to corrugated cardboard, heat-sensitive foam and even plastics and metals. For heat-sensitive materials, low-melt adhesives are dispensed at lower temperatures.
Step 1: Select your assembly type.

- **Small Joint Assembly**
  Small joints are typically irregularly shaped, but only a few inches of overlap area.

- **Large Surface Lamination**
  Two surfaces of similar size, either rigid or flexible, are bonded or laminated together where majority of the surface is covered by adhesive.

- **Mounting and Trim Attachment**
  Small objects are mounted or added to a large surface.

- **Sealing, Potting and Encapsulating**
  Adhesive flows over and around a component or fills a chamber to protect and seal components therein.

Step 2: After selecting your assembly, choose the substrate and identify the adhesive that performs best for your application.

<table>
<thead>
<tr>
<th>Substrate</th>
<th>Lead Adhesive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wood</td>
<td>3M™ Hot Melt Adhesive 3792</td>
</tr>
<tr>
<td>Paper</td>
<td>3M™ Hot Melt Adhesive 3762LM</td>
</tr>
<tr>
<td>Plastic</td>
<td>3M™ Hot Melt Adhesive 3764</td>
</tr>
<tr>
<td>Metal / Glass</td>
<td>3M™ Hot Melt Adhesive 3747</td>
</tr>
<tr>
<td>Fabric / Foam</td>
<td>3M™ Sprayable Hot Melt Adhesive 6111HT</td>
</tr>
</tbody>
</table>

Hot Melt Adhesive is dispensed at 177-196°C (350-385°F). Low-Melt Adhesive is dispensed at 121-132°C (250-270°F).

**NOTE:** Low-melt (LM) adhesives liquefy at lower operating temperatures for bonding heat-sensitive surfaces such as bead board and foams.

**NOTE:** High-temperature (HT) has high-temperature resistance.
Lead Markets and Applications

Furniture and Woodworking

Common Assembly: Small Joint Assembly, Large Surface Lamination, Mounting and Trim Attachment

- Great product performance for various small joint, mounting and trim attachment, and large surface lamination assemblies in furniture, upholstery, cabinetry and more.
- Bonds well to wood, particleboard, MDF, laminate, foam, and fabric. Nearly instant bonding strength speeds up production — eliminating the need for clamping and mechanical fasteners.
- Low-melt adhesives are available for lower operating temperatures and bonding heat-sensitive surfaces.

<table>
<thead>
<tr>
<th>Lead Adhesives</th>
<th>3792</th>
<th>3792LM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Multi-purpose for wood, fabric and many other substrates with a long open time</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Multi-purpose low melt for heat sensitive surfaces</td>
<td></td>
</tr>
</tbody>
</table>

Transportation

Common Assembly: Large Surface Lamination

- Bonds well to foams, fabrics, non-wovens and difficult surfaces, such as LSE plastics.
- Some products are available as sprayable hot melt. All products can be tested to meet your specification requirements.

<table>
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<tr>
<th>Lead Adhesives</th>
<th>6111HT</th>
<th>3731</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Sprayable hot melt with long open time; High temperature resistance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High heat resistance. Bonds plastics including polyethylene and polypropylene.</td>
<td></td>
</tr>
</tbody>
</table>
Packaging and Corrugated Carton Sealing

Common Assembly: Small Joint Assembly

- Quickly bonds and seals any size of corrugated carton invisibly. Durably bonds coated, printed and waxed surfaces that may be difficult to seal with tape.
- Low-melt adhesives are available for lower operating temperatures and bonding heat-sensitive surfaces.

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<tr>
<td>3762LM</td>
<td>General purpose, fast setting with “hot tack”</td>
</tr>
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</table>

Product Assembly

Common Assembly: Small Joint Assembly, Large Surface Lamination, Mounting and Trim Attachment

- Fast, durable product performance for small joint, mounting and trim attachment, large surface lamination and more.
- Many solutions are available to quickly assemble and attach materials for your design.
- Low-melt adhesives are available for lower operating temperatures and bonding heat-sensitive surfaces.

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<td>3792LM</td>
<td>Multi-purpose low melt for heat-sensitive surfaces</td>
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Point-of-Purchase, Displays and Trade Exhibits

Common Assembly: Small Joint Assembly, Large Surface Lamination, Mounting and Trim Attachment

- Fast, durable product performance for small joint, mounting and trim attachment, large surface lamination and more.
- Bonds well to wood, foam, fabric, and plastics.
- Low-melt adhesives are available for worker-friendly temperatures and bonding heat-sensitive surfaces.

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3M™ Hot Melt Applicator System Guide

3M™ Hot Melt Applicators are solutions that could help you improve productivity and minimize waste in industrial applications. From high volume to detail work, 3M™ Hot Melt Applicators are designed to ensure optimum performance through melt-on-demand or progressive feed technology for your production needs.

**3M™ Hot Melt Applicator LT**
- Lightweight design provides easy handling
- Thumb-controlled feeder holds adhesive stick securely and dispenses precisely
- On-demand feed control minimizes waste and dripping
- Adhesive size: 1.6 cm x 5 cm TC Stick

**3M™ Hot Melt Applicator AEII**
- Contoured grip and wide trigger provide operator comfort and precise control
- Positive check valve nozzle helps minimize dripping
- Built-in stand helps keep applicator upright, stable and ready for use
- Adhesive size: 1.3 cm x 25.4 cm AE Stick; 1.3 cm x 30.5 AE Stick

**3M™ Hot Melt Applicator TC**
- Lightweight design provides easy handling
- Thumb-controlled feeder holds adhesive stick securely and dispenses precisely
- On-demand feed control minimizes waste and dripping
- Adhesive size: 1.6 cm x 5 cm TC Stick

**3M™ Hot Melt Applicator TC with Quadrack Converter**
- Lightweight and easy to use
- Smooth and even flow of adhesive for small to medium sized projects
- Palm trigger helps improve operator comfort
- Adhesive size: 1.6 cm x 20.3 cm Q Stick

**3M™ Hot Melt Applicator LT with Quadrack Converter**
- Lightweight and easy to use
- Smooth and even flow of adhesive for small to medium sized projects
- Palm trigger helps improve operator comfort
- Adhesive size: LT Q 1.6 cm x 20.3 cm Q Stick

**3M™ Hot Melt Applicator LT**
- Lightweight design provides easy handling
- Thumb-controlled feeder holds adhesive stick securely and dispenses precisely
- On-demand feed control minimizes waste and dripping
- Adhesive size: 1.6 cm x 5 cm TC Stick

**3M™ Hot Melt Applicator EC**
- Variable temperature control allows one applicator to do many jobs
- Palm trigger helps improve operator comfort in high-demand applications
- Accepts Quadrack Converter stick size for smooth and even flow
- Adhesive size: 1.6 cm x 20.3 cm Q Stick

**3M™ Hot Melt Applicator PGII**
- Supports high-volume demands
- Rear cartridge feed port provides easy loading and continuous flow of adhesive
- Convenient stands hold applicator in proper standby or hands-free position
- Adhesive size: 2.5 cm x 7.6 cm PG Stick

**3M™ Hot Melt Applicator PGII**
- Supports high-volume demands
- Rear cartridge feed port provides easy loading and continuous flow of adhesive
- Convenient stands hold applicator in proper standby or hands-free position
- Adhesive size: 2.5 cm x 7.6 cm PG Stick
Adhesives Size Selection

3M™ Hot Melt Adhesives are designed and precisely manufactured for use in a 3M™ Hot Melt Applicator. When paired together, they work as a system, providing optimal performance for your design needs. Use the guide to select the right size for your application.

Select a 3M™ Hot Melt Applicator to fit your needs.

<table>
<thead>
<tr>
<th>Adhesive Type</th>
<th>Product/Cat #</th>
<th>Weight (lb)</th>
<th>Output (lb/hr)</th>
<th>Temperature °C (°F)</th>
<th>Power (W)</th>
<th>Adhesive Dia. x L (cm)</th>
<th>Sticks per Pound</th>
<th>Linear Feet per Stick</th>
<th>Stock Number</th>
<th>UPC Number</th>
<th>Warranty (Months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Melt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>3M™ Hot Melt Applicator LT (Low Temp)</td>
<td>0.3</td>
<td>12</td>
<td>129 (265)</td>
<td>150W</td>
<td>1.6 × 5.1 TC</td>
<td>55</td>
<td>8</td>
<td>62-9281-9930-6</td>
<td>0-00-021200-82245-2</td>
<td>12</td>
</tr>
<tr>
<td>B</td>
<td>3M™ Hot Melt Applicator LT with Quadrack Converter (Low Temp)</td>
<td>0.4</td>
<td>12</td>
<td>129 (265)</td>
<td>150W</td>
<td>1.6 × 20.3 Q</td>
<td>15</td>
<td>29</td>
<td>62-9281-9950-4</td>
<td>0-00-021200-89447-3</td>
<td>12</td>
</tr>
<tr>
<td>C</td>
<td>3M™ Hot Melt Applicator PGIILT (Low Temp)</td>
<td>2</td>
<td>2.7</td>
<td>129 (265)</td>
<td>500W</td>
<td>2.5 × 7.6 PG</td>
<td>12</td>
<td>36</td>
<td>Cartridge Feed* 62-9783-9630-7</td>
<td>Magazine Feed** 62-9783-9830-3</td>
<td>12</td>
</tr>
</tbody>
</table>

| Hot Melt      |               |             |                |                     |           |                       |                 |                      |              |             |                   |
| D             | 3M™ Hot Melt Applicator TC | 0.3 | 1.6 | 196 (385) | 150W | 1.6 × 5.1 TC | 55 | 8 | 62-9990-9935-1 | 0-00-021200-82244-5 | 12 |
| E             | 3M™ Hot Melt Applicator TC with Quadrack Converter | 0.4 | 1.6 | 196 (385) | 150W | 1.6 × 20.3 Q | 15 | 29 | 62-9990-9950-0 | 0-00-021200-89445-9 | 12 |
| F             | 3M™ Hot Melt Applicator PGIil | 2 | 3.2 | 196 (385) | 500W | 2.5 × 7.6 PG | 12 | 36 | Cartridge Feed* 62-9938-9630-7 | Magazine Feed** 62-9938-9830-3 | 12 |

| Low Melt      |               |             |                |                     |           |                       |                 |                      |              |             |                   |
| G             | 3M™ Hot Melt Applicator AEII | 0.6 | 1.8 | 204 (400) | 100W | 1.3 × 25.4 AE 1.3 × 30.5 AE | 19 | 23 | 23 | 62-9796-9930-3 | 0-00-021200-96594-4 | 6 |

| Low Melt      |               |             |                |                     |           |                       |                 |                      |              |             |                   |
| H             | 3M™ Hot Melt Applicator EC | 0.7 | 2.5 | 127-232 (260-460) | 350W | 1.6 × 20.3 Q | 15 | 29 | 69680-9930-9 | 0-00-021200-89519-7 | 12 |

* Cartridge feed holds up to 2 adhesive sticks 2.5 cm x 7.8 cm (1” x 3”) and the applicator holds 3 more in the chamber for a total of 5.
** Magazine feed holds up to 9 adhesive sticks 2.5 cm x 7.8 cm (1” x 3”) and the applicator holds 3 more in the chamber for a total of 12.

1 – Weight shown is for applicator only; does not include adhesive capacity.
2 – Adhesive output will vary with conditions and the adhesive used. Values are approximate and are based on maximum steady-state flow.
3 – Temperatures shown are nominal control values. Actual temperature will range slightly above or below this value.

Note: The technical information and data on these pages should be considered representative or typical only and should not be used for specification purposes.
Note: Repair parts are available. Reference owner manuals for information.
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