3M Science. Applied to Life.™



Solutions for your assembly challenges.

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3M Industrial Adhesives and Tapes

Design & Production Guide | June 2024

5,000+
adhesive and tape SKUs

Do it your way.

- 3M systems are built around *your* manufacturing processes, not the other way around.
- Whether it's structural or non-structural adhesives, bonding tapes or reclosable fasteners, 3M solutions ensure speed, convenience and ease of use.



88,667
employees

Do it together.

- No matter what you need to bond, you can count on 3M's expertise, technologies and 88,667 dedicated employees to help you find solutions.
- From wood, metal, foil, insulation, foam, fabric and panel lamination to specialty high performance and multipurpose materials of every kind, solutions are one call away.



Finding your 3M Adhesive & Tape Assembly Solutions

100,000
patents

Do it boldly.

- 3M has been a world leader in bonding technology for decades and we have the patents to prove it.
- Quality, consistency and reliability — the attributes you look for in a bonding solution — help drive our quest for new innovations.



1
chance to do it right



Do it responsibly.

- Sustainability is a natural extension of 3M's corporate values.
- We developed the first water-based contact adhesive ever — more than 40 years ago.
- We have a wide selection of Low VOC products that help contribute to LEED® credits and are GREENGUARD Certified.

3M™ Adhesives and Tapes
for design, assembly and production.


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What can 3M™ Adhesives and Tapes do for your product and process?

Build strong, durable products:

- From repositionable to permanent, 3M has an adhesive or tape that can be readily matched to the substrate and stress characteristics needed in the joint.

Improve appearance and aesthetics:

- 3M adhesives and tapes are generally hidden between the bonded substrates, offering nearly invisible fastening.
- Surfaces stay smooth and clean for a more attractive appearance and less surface refinishing.

Lower production and material costs:

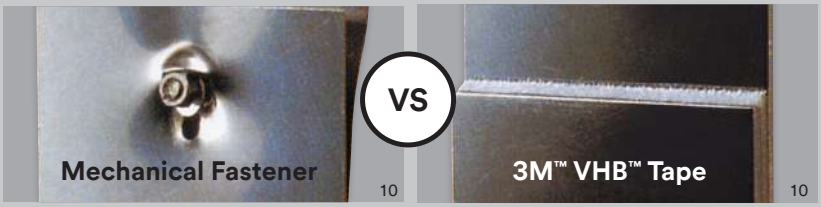
- Reduce process steps such as weld grinding and sealing individual penetrations from screws, nuts and bolts.
- Use thinner, lighter or less expensive materials that cannot be welded or fastened traditionally.
- Potentially lower capital investment. Many adhesives and tapes do not require major capital to use.
- Manage labor costs. Many tape and adhesive technologies require little operator training.

Build products with a continuous bond line:

- Adhesives and tapes uniformly distribute stress along the entire joint. Nuts, bolts and other fasteners concentrate stress at a point which can decrease physical properties of the substrates being assembled.
- Bond and seal simultaneously. Many 3M adhesives and tapes will provide a strong bond, but are also an effective seal against dirt, dust, water and other environmental conditions.
- Good fatigue resistance. If your parts are subject to vibration or other movement, the viscoelastic nature of 3M adhesives and tapes will impart flexibility to a joint or bonded area.

Wider material selection for assemblies:

- Lighter and thinner materials can be used. Welding and fastening weaken substrates and require a minimum thickness to retain integrity.
- Bond dissimilar materials. 3M adhesives and tapes bond to a wide range of substrates from metals, wood, glass, plastics and ceramics. This includes “hard to bond,” low surface energy materials.
- Prevent galvanic corrosion. 3M adhesives and tapes can provide a film barrier to reduce or prevent bimetallic corrosion that can occur when joining to different types of metals.



With uniform stress distribution of adhesives and tapes, lighter, thinner materials can be used without concerns about distortion, splitting, or crazing at the mechanically fastened site. Elimination of holes in metal also reduces the chances for rust and corrosion.

3M™ Adhesives and Tapes Product Family


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3M™ VHB™ Tapes


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3M™ Scotch-Weld™ Structural Adhesives


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3M™ Adhesive Sealants


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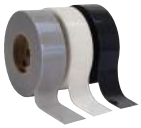
3M™ Adhesive Transfer Tapes


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3M™ Contact and Spray Adhesives


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3M™ Double Coated Tapes


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3M™ Extreme Sealing Tapes


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3M™ Hot Melt Adhesives


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3M™ Reclosable Fasteners


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3M™ Scotch-Weld™ Gasket Makers


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3M™ Scotch-Weld™ Instant Adhesives


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3M™ Scotch-Weld™ PUR Adhesives


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3M™ Scotch-Weld™ Retaining Compound


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3M™ Scotch-Weld™ Threadlockers

Considerations when selecting 3M™ Adhesives and Tapes for your product and process.

A

Assembly

What type of assembly is required? (Refer to 7 common assembly types in the right hand column.)

What are the overall performance needs of the assembly (flexibility, high peel strength, etc.)?

S

Substrate

What are the materials that are being bonded together? (Refer to the substrate selectors for each assembly type on pages 4–15.)

Consider the surface condition texture of each material.

P

Process

What is the current assembly and manufacturing process?

Does the solution need to fit into the current process/ equipment or can the process/equipment change?

What are the various process steps and how quickly will the assembly be moved to each step?

At any time, might the assembly bond need to be repositioned? If so, why and when?

Are there any environmental, regulatory or workplace safety restrictions?

E

End-Use

How and where is the final product used?

Will the assembly be exposed to harsh environmental conditions (UV, chemicals, high humidity, very high or low temperatures, etc.)?

C

Cost

Where can improvements be made in the assembly process (labor, reduction of process steps, materials, workflow, etc.)?

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Assembly Solutions are made up of these common applications:


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Panel to Frame/ Stiffener to Panel
pg 4


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Small Joint Assembly
pg 6


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Large Surface Lamination
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Mounting and Trim Attachment
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Gasket Attachment
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Sealing
pg 14


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Potting and Encapsulating
pg 14

What are Panel to Frame Assemblies? What are Stiffener to Panel Assemblies?

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Panels are used in multiple markets, such as transportation, metalworking and construction.

Panel to Frame: Decorative or load bearing panel that is applied to a rigid frame or support. **Examples include trailer panels, elevator walls and sign boxes.**

Stiffener to Panel: Stiffeners are applied to panels to give extra support and rigidity. **Examples include trailer wall panels, traffic signs and large metal enclosures.**

Possible Adhesive or Tape Requirements:

- Dead load holding strength
- Flexibility for dynamic loads and thermal expansion mismatch
- Fill a gap or variation in fit from end to end
- Provide a water seal

Best 3M Solutions for Panel to Frame/Stiffener to Panel Assemblies


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3M™ VHB™ Tapes (pg 72–79)

These high-strength bonding tapes are a proven alternative to screws, rivets, welds and other mechanical fasteners. 3M™ VHB™ Tape offers instant strength, a high ultimate bond and seals simultaneously. 3M™ VHB™ Tape's viscoelasticity allows relative movement of parts for thermal expansion/contraction. Best for flat to flat applications with a consistent bondline thickness.


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3M™ Scotch-Weld™ Structural Adhesives (pg 18–35)

Acrylic, epoxy and urethane structural adhesives that hold over 1,000 psi in overlap shear strength. Best suited for thinner bondlines, irregular shapes and textured surfaces where load-bearing strength is needed. Provides the highest load-bearing strength and environmental resistance.


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3M™ Adhesive Sealants (pg 64–68)

Acrylic, polyurethane, nitrile and hybrid one-component adhesive technologies with outstanding sealing properties. These products are capable of filling larger and irregular gaps including rough substrates. Highly flexible formulations allow for relative movement for thermal expansion/contraction.


18

3M™ Reclosable Fasteners (pg 96–99)

3M™ Dual Lock™ and 3M™ Hook and Loop Reclosable Fasteners for strong yet easily removable fastening solutions. These products are ideal to allow access for servicing or replacement of a panel. Generally backed with 3M™ VHB™ Tape or other 3M adhesive technologies.

Performance Factors for Panel to Frame/Stiffener to Panel Assemblies

All 3M technologies in the table below are commonly used in panel applications.
Use the table below as a relative comparison of product performance.

Attribute	3M™ VHB™ Tapes	3M™ Scotch-Weld™ Structural Adhesives	3M™ Adhesive Sealants	3M™ Reclosable Fasteners
Number of Steps to Apply and Ease of Application	**Best**	**Best**	Better	Better
Rate of Strength Build	**Best**	Good	Good	**Best**
Flexibility and Joint Expansion	**Best**	Good	**Best**	**Best**
Holding Power	Good	**Best**	Better	Good
Repair/Removal After Cure	**Best**	Good	Better	**Best**

Panel to Frame/Stiffener to Panel Assembly Solutions

+	Metals (Aluminum, Steel, Stainless, Galvanized)	Paints (Powder Coat, Painted Metal, Composite Panel)	Glass	Plastics: HSE, MSE (ABS, Acrylic, Polycarbonate, Nylon)	Plastics: LSE (Polypropylene, Polyethylene)
Metals	3M™ VHB™ Tape4941, RP+110GP, 5952 3M™ Scotch-Weld™ Structural Adhesive LSB60NS 3M™ Adhesive Sealant 550FC + AC63* 3M™ Reclosable Fastener SJ3550/51/52, SJ3571/72	3M™ VHB™ Tape 4941*, RP+110GP*, 5952 3M™ Scotch-Weld™ Structural Adhesive LSB60NS 3M™ Adhesive Sealant 550FC + AC63* 3M™ Reclosable Fastener SJ3540/41/42, SJ3526N/27N	3M™ VHB™ Tape 4941*, RP+110GP*, 5952* 3M™ Scotch-Weld™ Structural Adhesive LSB60NS 3M™ Adhesive Sealant 590*, 560*, 760* 3M™ Reclosable Fastener SJ3560/61/62, SJ3571/72	3M™ VHB™ Tape 4941*, RP+110GP*, 5952 3M™ Scotch-Weld™ Structural Adhesive LSB60NS 3M™ Adhesive Sealant 560*, 760* 3M™ Reclosable Fastener SJ3550/51/52, SJ3571/72	3M™ VHB™ Tape 4941*, RP+110GP*, 5952* 3M™ Scotch-Weld™ Structural Adhesive DP8010 Blue 3M™ Adhesive Sealant 560*, 760* 3M™ Reclosable Fastener SJ3540/41/42, SJ3526N/27N
Paints		3M™ VHB™ Tape 4941*, RP+110GP*, 5952 3M™ Scotch-Weld™ Structural Adhesive DP8810NS 3M™ Adhesive Sealant 550*, 560*, 760	3M™ VHB™ Tape 4941*, RP+110GP*, 5952* 3M™ Scotch-Weld™ Structural Adhesive LSB60NS 3M™ Adhesive Sealant 590*, 560*, 760*	3M™ VHB™ Tape 4941*, RP+110GP*, 5952 3M™ Scotch-Weld™ Structural Adhesive DP8810NS 3M™ Adhesive Sealant 560*, 760*	3M™ VHB™ Tape 4941*, RP+110GP*, 5952* 3M™ Scotch-Weld™ Structural Adhesive DP8010 Blue 3M™ Adhesive Sealant 560*, 760*
Glass			3M™ VHB™ Tape 4941*, RP+110GP*, 5952* 3M™ Scotch-Weld™ Structural Adhesive DP460 3M™ Adhesive Sealant 590*	3M™ VHB™ Tape 4941*, RP+110GP*, 5952 3M™ Scotch-Weld™ Structural Adhesive DP100 Plus Clear 3M™ Adhesive Sealant 560*, 760*	3M™ VHB™ Tape 4941*, RP+110GP*, 5952* 3M™ Scotch-Weld™ Structural Adhesive DP8010 Blue 3M™ Adhesive Sealant 560*, 760*
Plastics: HSE, MSE				3M™ VHB™ Tape 4941*, RP+110GP*, 5952 3M™ Scotch-Weld™ Structural Adhesive DP8405NS 3M™ Adhesive Sealant 560*, 760*	3M™ VHB™ Tape 4941*, RP+110GP*, 5952* 3M™ Scotch-Weld™ Structural Adhesive DP8010 Blue 3M™ Adhesive Sealant 560*, 760*
Plastics: LSE					3M™ VHB™ Tape 4941*, RP+110GP*, 5952* 3M™ Scotch-Weld™ Structural Adhesive DP8010 Blue 3M™ Adhesive Sealant 560*, 760*

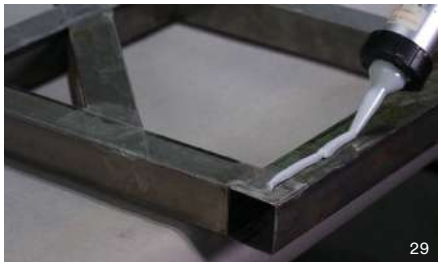
*Primers may also be required in some cases. See specific product pages for primer details.

For 3M™ VHB™ Tape applications in the Commercial Vehicle market, refer to page 76 for a selection of products.


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This guide lists products that are commonly used for this specific application. It is important that the customer evaluates these suggested products in their specific application.

What are Small Joint Assemblies?

Small joint assemblies exist in multiple markets, such as sporting goods, electronics, furniture, motors and electrical.

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Small Joint: Small joints are typically irregularly shaped but only a few inches of overlap area. They may be insertion joints or overlap joints, or some combination. **Examples include sporting goods (e.g., golf club heads to shaft), plastic casings, lens mounting for instrumentation, mortise and tenon furniture joints, thread locking or shaft retailing, magnet bonding and jewelry making.**

Possible Adhesive or Tape Requirements:

- Low viscosity for tight fitting parts
- Vibration resistance
- Very high strength
- Bond dissimilar materials

Best 3M Solutions for Small Joint Assemblies


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3M™ Scotch-Weld™ Structural Adhesives (pg 18–35)

Acrylic, epoxy and urethane structural adhesives that hold over 1000 psi in overlap shear strength. Best choice for highest strength, fatigue and environmental resistance especially for metal to metal bonds.


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3M™ Scotch-Weld™ Instant Adhesives (pg 38–39)

One part solvent-free adhesive that reaches handling strength in 5–10 seconds. Best for small bondlines (<10cm2). Commonly used on rubbers and plastics. Very tight bondlines are achievable with near instant strength.


17

3M™ Hot Melt Adhesives (pg 45–51)

100% solid, thermoplastic resins that reach bond strength in seconds. Best for wood and plastic.


21

3M™ Scotch-Weld™ PUR Adhesives (pg 36–37)

One component, hot applied thermosetting adhesive with immediate strength and holding power. Final cured strength over 1,000 psi. Best for wood and plastic.


22

3M™ Scotch-Weld™ Retaining Compounds

One-part anaerobic adhesives cure between metal surfaces. Permanent and removable grades are available.


23

3M™ Scotch-Weld™ Threadlockers (pg 41)

One-part anaerobic adhesives cure between metal surfaces. Permanent and removable grades are available.

Performance Factors for Small Joint Assemblies

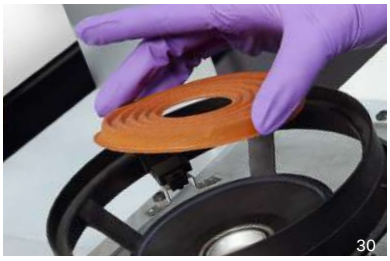
All 3M technologies in the table below are commonly used in small joint applications.
Use the table below as a relative comparison of product performance.

Attribute	3M™ Scotch-Weld™ Structural Adhesives	3M™ Scotch-Weld™ Instant Adhesives	3M™ Hot Melt Adhesives	3M™ Scotch-Weld™ PUR Adhesives	3M™ Scotch-Weld™ Threadlockers
Shear and Peel Strength	**Best**	Better	Good	**Best**	Better
Temperature and Solvent Resistance	**Best**	Good	Better	**Best**	Better
Aesthetics	Good	**Best**	Better	Better	Better
Rate of Strength Build	Good	**Best**	**Best**	Better	Better
Rework	Good	Better	Better	Good	**Best**

Small Joint Assembly Solutions

+	Metal (Unpainted)	Metal (Painted)	Glass, Ceramic, Stones	Rubber, Elastomers	Plastics: HSE, MSE (ABS, Acrylic, Polycarbonate, Nylon)	Plastics: LSE (Polypropylene, Polyethylene)	Wood
Metal (Unpainted)	3M™ Scotch-Weld™ Structural Adhesive DP420NS 3M™ Hot Melt Adhesive 3747, 3789 3M™ Scotch-Weld™ Retaining Compound RT09 3M™ Scotch-Weld™ Threadlockers TL62	3M™ Scotch-Weld™ Structural Adhesive DP8805NS 3M™ Hot Melt Adhesive 3747, 3764	3M™ Scotch-Weld™ Structural Adhesive DP420NS 3M™ Hot Melt Adhesive 3747, 3789	3M™ Scotch-Weld™ Structural Adhesive 2216	3M™ Scotch-Weld™ Structural Adhesive DP8805NS 3M™ Hot Melt Adhesive 3764, 3747 3M™ Scotch-Weld™ PUR Adhesive TE040, EZ250150	3M™ Scotch-Weld™ Structural Adhesive DP8010 Blue 3M™ Hot Melt Adhesive 3748, 3764 3M™ Scotch-Weld™ PUR Adhesive TE040, EZ250150	3M™ Scotch-Weld™ Structural Adhesive DP100 Plus 3M™ Hot Melt Adhesive 3792 3M™ Scotch-Weld™ PUR Adhesive EZ25150
Metal (Painted)		3M™ Scotch-Weld™ Structural Adhesive DP8805NS 3M™ Scotch-Weld™ Instant Adhesive PR100 3M™ Hot Melt Adhesive 3747, 3764	3M™ Scotch-Weld™ Structural Adhesive DP100 Plus 3M™ Scotch-Weld™ Instant Adhesive PR100 3M™ Hot Melt Adhesive 3764, 3792	3M™ Scotch-Weld™ Structural Adhesive DP620NS 3M™ Scotch-Weld™ Instant Adhesive PR100*	3M™ Scotch-Weld™ Structural Adhesive DP8805NS 3M™ Scotch-Weld™ Instant Adhesive PR100 3M™ Hot Melt Adhesive 3748, 3764 3M™ Scotch-Weld™ PUR Adhesive TE040, EZ250150	3M™ Scotch-Weld™ Structural Adhesive DP8010 Blue 3M™ Scotch-Weld™ Instant Adhesive PR100* 3M™ Hot Melt Adhesive 3748, 3764 3M™ Scotch-Weld™ PUR Adhesive TE040, EZ250150	3M™ Scotch-Weld™ Structural Adhesive DP620NS 3M™ Scotch-Weld™ Instant Adhesive SI100 3M™ Hot Melt Adhesive 3764, 3792 3M™ Scotch-Weld™ PUR Adhesive EZ25150
Glass, Ceramic, Stones			3M™ Scotch-Weld™ Structural Adhesive DP100 Plus 3M™ Scotch-Weld™ Instant Adhesive PR100 3M™ Hot Melt Adhesive 3792	3M™ Scotch-Weld™ Structural Adhesive DP100 Plus 3M™ Scotch-Weld™ Instant Adhesive PR100*	3M™ Scotch-Weld™ Structural Adhesive DP100 Plus 3M™ Scotch-Weld™ Instant Adhesive PR100 3M™ Hot Melt Adhesive 3748, 3764	3M™ Scotch-Weld™ Structural Adhesive DP8010 Blue 3M™ Scotch-Weld™ Instant Adhesive PR100* 3M™ Hot Melt Adhesive 3748, 3764	3M™ Scotch-Weld™ Structural Adhesive DP420NS 3M™ Scotch-Weld™ Instant Adhesive SI100 3M™ Hot Melt Adhesive 3792 3M™ Scotch-Weld™ PUR Adhesive EZ250120, EZ250150
Rubber, Elastomers				3M™ Scotch-Weld™ Instant Adhesive PR100*	3M™ Scotch-Weld™ Structural Adhesive DP620NS 3M™ Scotch-Weld™ Instant Adhesive PR100*	3M™ Scotch-Weld™ Instant Adhesive PR100*	3M™ Scotch-Weld™ Structural Adhesive DP604NS 3M™ Scotch-Weld™ Instant Adhesive SI100*
Plastics: HSE, MSE					3M™ Scotch-Weld™ Structural Adhesive DP8405NS, DP8805NS 3M™ Scotch-Weld™ Instant Adhesive PR100 3M™ Hot Melt Adhesive 3748, 3764 3M™ Scotch-Weld™ PUR Adhesive EZ250150	3M™ Scotch-Weld™ Structural Adhesive DP8010 Blue 3M™ Scotch-Weld™ Instant Adhesive PR100* 3M™ Hot Melt Adhesive 3748, 3764	3M™ Scotch-Weld™ Structural Adhesive DP620NS 3M™ Scotch-Weld™ Instant Adhesive SI100 3M™ Hot Melt Adhesive 3764, 3792 3M™ Scotch-Weld™ PUR Adhesive EZ250150
Plastics: LSE						3M™ Scotch-Weld™ Structural Adhesive DP8010 Blue 3M™ Scotch-Weld™ Instant Adhesive PR100* 3M™ Hot Melt Adhesive 3748, 3764	3M™ Scotch-Weld™ Structural Adhesive DP8010NS 3M™ Scotch-Weld™ Instant Adhesive SI100* 3M™ Hot Melt Adhesive 3764, 3792 3M™ Scotch-Weld™ PUR Adhesive EZ250150
Wood							3M™ Scotch-Weld™ Structural Adhesive DP100 3M™ Scotch-Weld™ Instant Adhesive SI100 3M™ Hot Melt Adhesive 3792 3M™ Scotch-Weld™ PUR Adhesive EZ250120, EZ250060

*Primers may also be required in some cases. See specific product pages for primer details.


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This guide lists products that are commonly used for this specific application. It is important that the customer evaluates these suggested products in their specific application.

What are Large Surface Lamination Assemblies?

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Large surface bonds and laminations exist in multiple markets, such as transportation, appliance, furniture and construction.

Large Surface Lamination: Two surfaces (substrates) of similar size, either rigid or flexible, are bonded or laminated together where a majority of the surface is covered by the adhesive or tape in order to create the bond. **Examples include high pressure laminate to tabletops, fabric to foam for furniture, veneers on wood and flexible transportation flooring.**

Possible Adhesive or Tape Requirements:

- Cover full surface
- Flexible when dry; not stiff
- Allow for positioning parts
- Bonds quickly/little or no fixturing

Best 3M Solutions for Large Surface Lamination Assemblies


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3M™ Scotch-Weld™ Structural Adhesives (pg 18–35)
Acrylic, epoxy and urethane structural adhesives that hold over 1,000 psi in overlap shear strength. Best suited for applications where high load-bearing strength is required.


14

3M™ Contact and Spray Adhesives (pg 52–63)
Solvent and water based adhesives that can be sprayed, brushed or roll applied. Very fast and easy coverage of large areas including irregular and mildly textured shapes. Bonds the widest range of substrates.


17

3M™ Hot Melt Adhesives (pg 45–51)
100% solid, low VOC thermoplastic resins that reach bond strength in seconds. Long open-time formulations can be spray applied. Bonds irregular shapes and textured surfaces.


21

3M™ Scotch-Weld™ PUR Adhesives (pg 36–37)
One component, hot applied thermosetting adhesive with immediate strength and holding power. Final cured strength over 1,000 psi. Long open-time formulations can be spray applied.


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3M™ Adhesive Transfer Tapes (pg 87–92)
A pressure sensitive adhesive on a liner. Can be laminated onto a surface by hand or by automation. Instant adhesion with no mess or waste and very thin bondlines.

Performance Factors for Large Surface Lamination Assemblies

All 3M technologies in the table below are commonly used in large surface bonding applications.
Use the table below as a relative comparison of product performance.

Attribute	3M™ Scotch-Weld™ Structural Adhesives	3M™ Contact and Spray Adhesives	3M™ Hot Melt Adhesives	3M™ Scotch-Weld™ PUR Adhesives	3M™ Adhesive Transfer Tapes
Shear and Peel Strength	**Best**	Good	Better	**Best**	Better
Temperature and Solvent Resistance	**Best**	Good	Better	**Best**	Good
Aesthetics and Read Through	Good	**Best**	Better	Better	**Best**
Speed and Convenience of Application	Good	**Best**	Better	Better	Better
Rate of Strength Build	Good	**Best**	**Best**	Better	**Best**

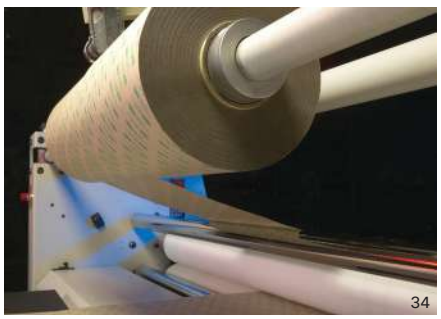
Large Surface Lamination Assembly Solutions

+	Metals, Paints, Glass	Rubber (EPDM, Santoprene®)	Foam and Cloth (Urethane, Fabrics)	Plasticized Vinyl	Plastics (ABS, Acrylic, Polycarbonate, Nylon)	Wood
Metals, Paints, Glass	3M™ Scotch-Weld™ Structural Adhesive LSB60 3M™ Contact and Spray Adhesive 94 CA, 1357 3M™ Hot Melt Adhesive 6111HT 3M™ Scotch-Weld™ PUR Adhesive TS230, TS115HGS 3M™ Adhesive Transfer Tape F9473PC, 9485PC	3M™ Scotch-Weld™ Structural Adhesive 2216 3M™ Contact and Spray Adhesive 1300, 847 3M™ Adhesive Transfer Tape 468MP*, 950	3M™ Contact and Spray Adhesive 74, 100NF 3M™ Hot Melt Adhesive 6111HT 3M™ Adhesive Transfer Tape 6035PC, 950	3M™ Scotch-Weld™ Structural Adhesive 2216 3M™ Contact and Spray Adhesive 4491, 1000NF 3M™ Adhesive Transfer Tape F9467U, F9465PC	3M™ Scotch-Weld™ Structural Adhesive 2216 3M™ Contact and Spray Adhesive 94 CA, 4475 3M™ Hot Melt Adhesive 6111HT 3M™ Scotch-Weld™ PUR Adhesive TS230, TS115 3M™ Adhesive Transfer Tape 468MP, 9472LE	3M™ Scotch-Weld™ Structural Adhesive 2216 3M™ Contact and Spray Adhesive 94 CA, 1357 3M™ Hot Melt Adhesive 6111HT 3M™ Scotch-Weld™ PUR Adhesive TS230, TS115HGS 3M™ Adhesive Transfer Tape 6035PC, 468MP
Rubber		3M™ Scotch-Weld™ Structural Adhesive 2216 3M™ Contact and Spray Adhesive 4799 3M™ Scotch-Weld™ PUR Adhesive TS230 3M™ Adhesive Transfer Tape 468MP*, 950	3M™ Contact and Spray Adhesive 4799 3M™ Scotch-Weld™ PUR Adhesive TS230, TS115 3M™ Adhesive Transfer Tape 6035PC, 950	3M™ Scotch-Weld™ Structural Adhesive 2216 3M™ Contact and Spray Adhesive 4799 3M™ Scotch-Weld™ PUR Adhesive TS230, TS115 3M™ Adhesive Transfer Tape F9467U*, F9465PC	3M™ Scotch-Weld™ Structural Adhesive 2216 3M™ Contact and Spray Adhesive 4799 3M™ Scotch-Weld™ PUR Adhesive TS230, TS115 3M™ Adhesive Transfer Tape 468MP*, 9472LE	3M™ Scotch-Weld™ Structural Adhesive 2216 3M™ Contact and Spray Adhesive 4799 3M™ Scotch-Weld™ PUR Adhesive TS230, TS115HGS 3M™ Adhesive Transfer Tape 468MP*, 950
Foam and Cloth			3M™ Contact and Spray Adhesive 74, 100NF 3M™ Hot Melt Adhesive 6111HT 3M™ Scotch-Weld™ PUR Adhesive TS230, TS115 3M™ Adhesive Transfer Tape 6035PC, 950	3M™ Contact and Spray Adhesive 4491, 1000NF 3M™ Scotch-Weld™ PUR Adhesive TS230, TS115 3M™ Adhesive Transfer Tape 950, F9465PC	3M™ Contact and Spray Adhesive 77, 74 3M™ Hot Melt Adhesive 6111HT 3M™ Scotch-Weld™ PUR Adhesive TS230, TS115 3M™ Adhesive Transfer Tape 950, 6035PC	3M™ Contact and Spray Adhesive 77, 1000NF 3M™ Hot Melt Adhesive 6111HT 3M™ Scotch-Weld™ PUR Adhesive TS230, TS115HGS 3M™ Adhesive Transfer Tape 950, 6035PC
Plasticized Vinyl				3M™ Scotch-Weld™ Structural Adhesive 2216 3M™ Contact and Spray Adhesive 4491, 1300 3M™ Scotch-Weld™ PUR Adhesive TS230, TS115 3M™ Adhesive Transfer Tape F9467U, F9465PC	3M™ Scotch-Weld™ Structural Adhesive 2216 3M™ Contact and Spray Adhesive 4491, 1300 3M™ Scotch-Weld™ PUR Adhesive TS230, TS115 3M™ Adhesive Transfer Tape F9467U, F9465PC	3M™ Scotch-Weld™ Structural Adhesive 2216 3M™ Contact and Spray Adhesive 4491, 1000NF 3M™ Scotch-Weld™ PUR Adhesive TS230, TS115HGS 3M™ Adhesive Transfer Tape F9467U, F9465PC
Plastics					3M™ Scotch-Weld™ Structural Adhesive 2216 3M™ Contact and Spray Adhesive 94 CA, 4475 3M™ Hot Melt Adhesive 6111HT 3M™ Scotch-Weld™ PUR Adhesive TS230, TS115 3M™ Adhesive Transfer Tape 9472LE, 468MP	3M™ Scotch-Weld™ Structural Adhesive 2216 3M™ Contact and Spray Adhesive 94 CA, 4475 3M™ Hot Melt Adhesive 6111HT 3M™ Scotch-Weld™ PUR Adhesive TS230, TS115HGS 3M™ Adhesive Transfer Tape 9472LE, 468MP
Wood						3M™ Scotch-Weld™ Structural Adhesive 2216 3M™ Contact and Spray Adhesive 94 CA, 30NF 3M™ Hot Melt Adhesive 6111HT 3M™ Scotch-Weld™ PUR Adhesive TS230, TS115HGS 3M™ Adhesive Transfer Tape 6035PC, 468MP

*Primers may also be required in some cases. See specific product pages for primer details.


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This guide lists products that are commonly used for this specific application. It is important that the customer evaluates these suggested products in their specific application.

What are Mounting and Trim Attachment Assemblies?

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Mounting and trim attachment exists in multiple markets, such as transportation, appliance, furniture, construction and architecture.

Mounting: Applying an object to a surface. Generally, static loads are prevalent and the mounted item is smaller than the surface to which it is bonded. **Examples include small signs, mirrors and white boards, and panel-over-panel with partial adhesive coverage.**

Trim: Decoration or identification added to a surface. **Examples include nameplates, edge banding, bezels, rosettes and muntin bars.**

Possible Adhesive or Tape Requirements:

- Dead load holding strength
- Aesthetics
- Removability
- Fast bonding/little or no fixturing

Best 3M Solutions for Mounting and Trim Attachment Assemblies


8

3M™ VHB™ Tapes (pg 72–79)
High-strength bonding tapes that are a proven alternative to screws, rivets, welds and other mechanical fasteners. Can pre-apply to trim for production flexibility. Ideal for dissimilar substrates.


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3M™ Scotch-Weld™ Structural Adhesives (pg 18–35)
Acrylic, epoxy and urethane structural adhesives that hold over 1,000 psi in overlap shear strength. Use for heavy dead-loads with smaller joint areas (Example: brackets on heavy panels, poorly matched parts with high spring-back forces).


20

3M™ Scotch-Weld™ Instant Adhesives (pg 38–39)
One part solvent-free cyanoacrylate (CA) adhesive that reaches handling strength in 5–30 seconds. Best for small very tight bondlines (<10cm2). Commonly used on rubbers and plastics.


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3M™ Hot Melt Adhesives (pg 45–51)
100% solid, thermoplastic resins that reach bond strength in seconds. Best for wood and plastic.


21

3M™ Scotch-Weld™ PUR Adhesives (pg 36–37)
One component, hot applied thermosetting adhesive with immediate strength and holding power. Final cured strength over 1,000 psi. Best for wood and plastic.


18

3M™ Reclosable Fasteners (pg 96–99)
3M™ Dual Lock™ and 3M™ Hook and Loop Reclosable Fasteners for strong yet easily removable fastening solutions. These products are ideal for quick mounting, trim or sign installation and change out.


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3M™ Adhesive Transfer Tapes (pg 87–92)
A pressure sensitive adhesive on a liner. Can be laminated onto a surface by hand or by automation. Can be pre-applied to trim. Provides very thin, aesthetic bondlines. Special formulations for LSE plastics.


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3M™ Double Coated Tapes (pg 81–85)
A paper, film or tissue carrier with pressure sensitive adhesive on both sides. Can be laminated onto a surface by hand or by automation. Can be pre-applied to trim. Provides very thin, aesthetic bond-lines. Special formulations for LSE plastics.

Performance Factors for Mounting and Trim Attachment Assemblies

All 3M technologies in the table below are commonly used in mounting and trim attachment applications. Use the table below as a relative comparison of product performance.

Attribute	3M™ VHB™ Tapes	3M™ Scotch-Weld™ Structural Adhesive	3M™ Scotch-Weld™ Instant Adhesive	3M™ Hot Melt Adhesives	3M™ Scotch-Weld™ PUR Adhesives	3M™ Reclosable Fasteners	3M™ Adhesive Transfer Tapes	3M™ Double Coated Tapes
Shear and Peel Strength	Better	**Best**	Better	Better	**Best**	Good	Good	Good
Temperature and Solvent Resistance	Better	**Best**	Good	Good	**Best**	Better	Better	Better
Aesthetics	**Best**	Good	Better	Better	Better	Better	**Best**	**Best**
Repositionability During Application	Good	**Best**	Good	Good	Better	Better	Good	Better
Rate of Strength Build	**Best**	Good	**Best**	**Best**	Better	**Best**	**Best**	**Best**
Removable After Cure	Better	N/A	Good	Good	N/A	**Best**	Better	Better

Mounting and Trim Attachment Assembly Solutions

+	Metals (Aluminum, Steel, Stainless, Galvanized)	Paints (Powder Coat, Painted Metal, Composite Panel, Sealed or Painted Wood)	Glass	Plastics: HSE, MSE (ABS, Acrylic, Polycarbonate, Nylon)	Plastics: LSE (Polypropylene, Polyethylene)	Wood
Metals	3M™ VHB™ Tape4941, 5952, RP+100GP 3M™ Scotch-Weld™ Structural Adhesive DP8805NS 3M™ Hot Melt Adhesive 3789, 3747 3M™ Scotch-Weld™ PUR Adhesive TE040, EZ250150 3M™ Reclosable Fastener SJ3550/51/52, SJ3571/72 3M™ Adhesive Transfer Tape 468MP, F9473PC 3M™ Double Coated Tape 9500PC	3M™ VHB™ Tape 4941,* 5952, RP+100GP* 3M™ Scotch-Weld™ Structural Adhesive DP8810NS 3M™ Hot Melt Adhesive 3764, 3747 3M™ Scotch-Weld™ PUR Adhesive TE040, EZ250150 3M™ Reclosable Fastener SJ3540/41/42, SJ3526N/27N 3M™ Adhesive Transfer Tape 9472LE, 9485PC 3M™ Double Coated Tape 9500PC	3M™ VHB™ Tape 4941,* 5952,* RP+100GP* 3M™ Scotch-Weld™ Structural Adhesive DP420NS 3M™ Hot Melt Adhesive 3789, 3747 3M™ Reclosable Fastener SJ3560/61/62, SJ3571/72 3M™ Adhesive Transfer Tape 468MP, F9473PC 3M™ Double Coated Tape 9500PC	3M™ VHB™ Tape 4941,* 5952, RP+100GP* 3M™ Scotch-Weld™ Structural Adhesive DP8805NS 3M™ Hot Melt Adhesive 3764, 3747 3M™ Scotch-Weld™ PUR Adhesive TE040, EZ250150 3M™ Reclosable Fastener SJ3550/51/52, SJ3571/72 3M™ Adhesive Transfer Tape 468MP, 9472LE 3M™ Double Coated Tape 9500PC	3M™ VHB™ Tape 4941,* 5952,* RP+100GP* 3M™ Scotch-Weld™ Structural Adhesive DP8010 Blue 3M™ Hot Melt Adhesive 3764, 3747 3M™ Reclosable Fastener SJ3540/41/42, SJ3526N/27N 3M™ Adhesive Transfer Tape 9472LE, 9485PC 3M™ Double Coated Tape 9500PC	3M™ Hot Melt Adhesive 3792 3M™ Scotch-Weld™ PUR Adhesive EZ250150
Paints		3M™ VHB™ Tape 4941,* 5952, RP+100GP* 3M™ Scotch-Weld™ Structural Adhesive DP8810NS 3M™ Scotch-Weld™ Instant Adhesive PR100 3M™ Hot Melt Adhesive 3764, 3792 3M™ Scotch-Weld™ PUR Adhesive EZ250150 3M™ Reclosable Fastener SJ3540/41/42, SJ3526N/27N 3M™ Adhesive Transfer Tape 9472LE, 468MP 3M™ Double Coated Tape 9832, 9500PC	3M™ VHB™ Tape 4941,* 5952,* RP+100GP* 3M™ Scotch-Weld™ Structural Adhesive DP420NS 3M™ Hot Melt Adhesive 3764, 3792 3M™ Scotch-Weld™ PUR Adhesive EZ250150 3M™ Reclosable Fastener SJ3560/61/62, SJ3571/72 3M™ Adhesive Transfer Tape 9472LE, 468MP 3M™ Double Coated Tape 9832, 9500PC	3M™ VHB™ Tape 4941,* 5952, RP+100GP* 3M™ Scotch-Weld™ Structural Adhesive DP8410NS 3M™ Scotch-Weld™ Instant Adhesive PR100 3M™ Hot Melt Adhesive 3747, 3792 3M™ Scotch-Weld™ PUR Adhesive EZ250150 3M™ Reclosable Fastener SJ3550/51/52, SJ3571/72 3M™ Adhesive Transfer Tape 468MP, 9472LE 3M™ Double Coated Tape 9832, 9500PC	3M™ VHB™ Tape *4941, *5952, *RP+100GP 3M™ Scotch-Weld™ Structural Adhesive DP8010 Blue 3M™ Scotch-Weld™ Instant Adhesive PR100* 3M™ Hot Melt Adhesive 3748, 3764 3M™ Reclosable Fastener SJ3540/41/42, SJ3526N/27N 3M™ Adhesive Transfer Tape 9472LE, 9485PC 3M™ Double Coated Tape 9832, 9500PC	3M™ Hot Melt Adhesive 3764, 3792 3M™ Scotch-Weld™ PUR Adhesive EZ25150
Glass			3M™ VHB™ Tape 4941,* 5952,* RP+100GP* 3M™ Scotch-Weld™ Structural Adhesive DP100 Plus Clear 3M™ Hot Melt Adhesive 3792 3M™ Reclosable Fastener SJ3560/61/62, SJ3571/72 3M™ Adhesive Transfer Tape 468MP, F9473PC 3M™ Double Coated Tape 9500PC	3M™ VHB™ Tape 4941,* 5952, RP+100GP* 3M™ Scotch-Weld™ Structural Adhesive DP100 Plus 3M™ Hot Melt Adhesive 3748, 3792 3M™ Scotch-Weld™ PUR Adhesive EZ250150 3M™ Reclosable Fastener SJ3550/51/52, SJ3571/72 3M™ Adhesive Transfer Tape 468MP, 9485PC 3M™ Double Coated Tape 9500PC	3M™ VHB™ Tape 4941,* 5952,* RP+100GP* 3M™ Scotch-Weld™ Structural Adhesive DP8010 Blue 3M™ Scotch-Weld™ Instant Adhesive PR100* 3M™ Hot Melt Adhesive 3748, 3764 3M™ Reclosable Fastener SJ3540/41/42, SJ3526N/27N 3M™ Adhesive Transfer Tape 9472LE, 9485PC 3M™ Double Coated Tape 9500PC	3M™ Hot Melt Adhesive 3792 3M™ Scotch-Weld™ PUR Adhesive EZ250120, EZ250150
Plastics: HSE, MSE				3M™ VHB™ Tape 4941,* 5952,* RP+100GP 3M™ Scotch-Weld™ Structural Adhesive DP8405NS 3M™ Scotch-Weld™ Instant Adhesive PR100 3M™ Hot Melt Adhesive 3748, 3792 3M™ Scotch-Weld™ PUR Adhesive EZ250150, EZ250030 3M™ Reclosable Fastener SJ3550/51/52, SJ3571/72 3M™ Adhesive Transfer Tape 468MP, 9472LE 3M™ Double Coated Tape 9500PC, 9832	3M™ VHB™ Tape 4941,* 5952,* RP+100GP* 3M™ Scotch-Weld™ Structural Adhesive DP8010 Blue 3M™ Scotch-Weld™ Instant Adhesive PR100* 3M™ Hot Melt Adhesive 3748, 3764 3M™ Reclosable Fastener SJ3540/41/42, SJ3526N/27N 3M™ Adhesive Transfer Tape 9472LE, 9485PC 3M™ Double Coated Tape 9500PC, 9832	3M™ Hot Melt Adhesive 3764, 3792 3M™ Scotch-Weld™ PUR Adhesive EZ250150
Plastics: LSE					3M™ VHB™ Tape 4941,* 5952,* RP+100GP* 3M™ Scotch-Weld™ Structural Adhesive DP8010 Blue 3M™ Scotch-Weld™ Instant Adhesive PR100* 3M™ Hot Melt Adhesive 3748, 3764 3M™ Reclosable Fastener SJ3540/41/42, SJ3526N/27N 3M™ Adhesive Transfer Tape 9472LE, 9485PC 3M™ Double Coated Tape 9500PC	3M™ Hot Melt Adhesive 3764, 3792 3M™ Scotch-Weld™ PUR Adhesive EZ250150
Wood						3M™ Hot Melt Adhesive 3792 3M™ Scotch-Weld™ PUR Adhesive EZ250120, EZ250060

*Primers may also be required in some cases. See specific product pages for primer details.

For 3M™ VHB™ Tape applications in the Window and Door market, refer to page 78 for a selection of products.

This guide lists products that are commonly used for this specific application. It is important that the customer evaluates these suggested products in their specific application.

What are Gasket Attachment Assemblies?



Gaskets are used in multiple markets, such as electronics, transportation, fluid handling equipment and appliance.

Casketing: Attachment of a substrate typically, foam, rubber or paper that acts as an interface or seal between two surfaces. 3M offers solutions for attaching preformed gaskets, and also solutions which can replace gaskets or bond and seal simultaneously. **Examples include air and liquid filters, fluid handling equipment, heat exchangers and ball joints.**

Possible Adhesive or Tape Requirements:

- Easy and fast to apply gaskets
- Resist fluids
- High adhesion to foams and rubber

Best 3M Solutions for Gasket Assemblies



3M™ VHB™ Tapes (pg 72–79)
High-strength bonding tapes that can be die-cut into a variety of shapes to replace rubber or foam gaskets, providing an instant, simple solution. Their closed-cell construction provides a watertight barrier between flat parts.



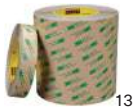
3M™ Scotch-Weld™ Instant Adhesives (pg 37–39)
One part solvent-free cyanoacrylate (CA) adhesive that reaches handling strength in 5–30 seconds. Best for small very tight bondlines (<10cm2). Commonly used on rubbers and plastics.



3M™ Scotch-Weld™ Gasket Makers (pg 41)
One-part anaerobic adhesives can be applied as a curing liquid gasket between complex metal shapes, replacing pre-formed gaskets.



3M™ Contact and Spray Adhesives (pg 52–63)
Solvent and water based adhesives can be sprayed, brushed or roll applied. Very fast, easy and economical coverage of multiple substrates, irregular shapes and mild textures.



3M™ Adhesive Transfer Tapes (pg 87–92)
Can be pre-applied to gasketing material which is then die-cut to provide parts. These products provide instant adhesion to flat, untextured substrates.



3M™ Double Coated Tapes (pg 81–85)
Can be pre-applied to gasketing material which is then die-cut to provide parts. These products provide instant adhesion.

Performance Factors for Gasket Assemblies

All 3M technologies in the table below are commonly used in gasket attachment applications. Use the table below as a relative comparison of product performance.

Attribute	3M™ VHB™ Tapes	3M™ Scotch-Weld™ Instant Adhesives	3M™ Scotch-Weld™ Gasket Makers	3M™ Contact and Spray Adhesives	3M™ Adhesive Transfer Tapes	3M™ Double Coated Tapes
High Strength and Rubber Bonding	N/A	**Best**	N/A	Better	Good	Good
Temperature and Solvent Resistance	**Best**	Good	**Best**	**Best**	**Best**	**Best**
Ease of Application	**Best**	Better	Better	Good	**Best**	**Best**
Rate of Strength Build	**Best**	**Best**	Good	**Best**	**Best**	**Best**

Gasket Attachment Assembly Solutions

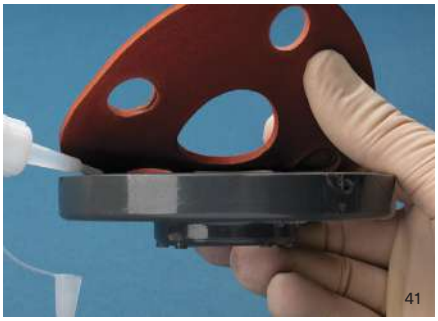
+	Metal	Glass	Paint	Plastics: HSE	Plastics: LSE
Rubber (EPDM, Santoprene®)	3M™ Scotch-Weld™ Instant Adhesive PR100* 3M™ Contact and Spray Adhesive 4799 3M™ Adhesive Transfer Tape 468MP*, 950 3M™ Double Coated Tape 9832	3M™ Contact and Spray Adhesive 4799 3M™ Adhesive Transfer Tape 468MP*, 950 3M™ Double Coated Tape 9832	3M™ Scotch-Weld™ Instant Adhesive PR100* 3M™ Contact and Spray Adhesive 4799 3M™ Adhesive Transfer Tape 468MP*, 950 3M™ Double Coated Tape 9832	3M™ Scotch-Weld™ Instant Adhesive PR100* 3M™ Contact and Spray Adhesive 4799 3M™ Adhesive Transfer Tape 468MP*, 950 3M™ Double Coated Tape 9832	3M™ Scotch-Weld™ Instant Adhesive PR100* 3M™ Contact and Spray Adhesive 4799 3M™ Adhesive Transfer Tape 9472LE*, 950 3M™ Double Coated Tape 9832
Silicone Gaskets	3M™ Scotch-Weld™ Instant Adhesive PR100* 3M™ Scotch-Weld™ Gasket Maker GM18 replace gasket 3M™ Adhesive Transfer Tape 91022 3M™ Double Coated Tape 9731, 96042	3M™ Adhesive Transfer Tape 91022 3M™ Double Coated Tape 9731, 96042	3M™ Scotch-Weld™ Instant Adhesive PR100* 3M™ Adhesive Transfer Tape 91022 3M™ Double Coated Tape 9731, 96042	3M™ Scotch-Weld™ Instant Adhesive PR100* 3M™ Adhesive Transfer Tape 91022 3M™ Double Coated Tape 9731, 96042	3M™ Scotch-Weld™ Instant Adhesive PR100* 3M™ Adhesive Transfer Tape 91022 3M™ Double Coated Tape 9731, 96042
Neoprene	3M™ Scotch-Weld™ Instant Adhesive PR100* 3M™ Adhesive Transfer Tape 6035PC, 950 3M™ Double Coated Tape 9832	3M™ Contact and Spray Adhesive 1300 3M™ Adhesive Transfer Tape 6035PC, 950 3M™ Double Coated Tape 9832	3M™ Scotch-Weld™ Instant Adhesive PR100* 3M™ Contact and Spray Adhesive 1300 3M™ Adhesive Transfer Tape 6035PC, 950 3M™ Double Coated Tape 9832	3M™ Scotch-Weld™ Instant Adhesive PR100* 3M™ Contact and Spray Adhesive 1300 3M™ Adhesive Transfer Tape 6035PC, 950 3M™ Double Coated Tape 9832	3M™ Scotch-Weld™ Instant Adhesive PR100* 3M™ Contact and Spray Adhesive 90 3M™ Adhesive Transfer Tape 6035PC, 950 3M™ Double Coated Tape 9832
Nylon	3M™ Scotch-Weld™ Instant Adhesive PR100 3M™ Adhesive Transfer Tape 9472LE	3M™ Contact and Spray Adhesive 1099 3M™ Adhesive Transfer Tape 9472LE	3M™ Scotch-Weld™ Instant Adhesive PR100 3M™ Contact and Spray Adhesive 1099 3M™ Adhesive Transfer Tape 9472LE	3M™ Scotch-Weld™ Instant Adhesive PR100 3M™ Contact and Spray Adhesive 1099 3M™ Adhesive Transfer Tape 9472LE	3M™ Scotch-Weld™ Instant Adhesive PR100* 3M™ Contact and Spray Adhesive 90 3M™ Adhesive Transfer Tape 9472LE
PTFE	3M™ Scotch-Weld™ Instant Adhesive PR100* 3M™ Scotch-Weld™ Gasket Maker GM18 replace gasket 3M™ Adhesive Transfer Tape 950	3M™ Adhesive Transfer Tape 9472LE	3M™ Scotch-Weld™ Instant Adhesive PR100* 3M™ Adhesive Transfer Tape 9472LE	3M™ Scotch-Weld™ Instant Adhesive PR100* 3M™ Adhesive Transfer Tape 9472LE	3M™ Scotch-Weld™ Instant Adhesive PR100* 3M™ Adhesive Transfer Tape 9472LE

*Primers may also be required in some cases. See specific product pages for primer details.



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3M™ VHB™ Tape can replace gaskets on many substrates listed in the chart. 3M™ Scotch-Weld™ Gasket Makers are suitable to replace gaskets in metal to metal applications.


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This guide lists products that are commonly used for this specific application. It is important that the customer evaluates these suggested products in their specific application.

What is Sealing of Assemblies? What is Potting and Encapsulating of Assemblies?

292 292

Sealing and potting exists in multiple markets, such as transportation, metalworking, electronics, electrical, construction and MRO.

Sealing: Tape or sealant is applied over a seam to prevent fluid ingress or fluid egress. **Examples include roof seams on vehicles, seams on metal enclosures and pipe sealing.**

Potting and Encapsulating: Adhesive flows over and around a component or fills in a chamber to protect components therein. **Examples include heavy duty electrical cords and connectors, electronics in plastic cases, circuit boards and concrete repair.**

Possible Adhesive or Tape Requirements:

- Highly elongating/flexible
- Fast cure for painting
- Durability

Best 3M Solutions for Sealing, Potting and Encapsulating


11

3M™ Scotch-Weld™ Structural Adhesives (pg 18–35)

Acrylic, epoxy and urethane structural adhesives are available in a variety of cure times and flow profiles for potting and encapsulation. Available in both rigid and flexible formulations.


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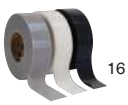
3M™ Hot Melt Adhesives (pg 45–51)

Extrudable, 100% solid, thermoplastic resins designed for potting and encapsulating electrical components.


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3M™ Adhesive Sealants (pg 64–68)

Acrylic, polyurethane and nitrile and hybrid are one component sealing technologies. Can be extruded in any shape on a substrate and are non-sag to fill gaps. Some formulations can be painted wet.


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3M™ Extreme Sealing Tapes (pg 80)

Provides instant sealing and paint-ability when applied over seams or gaps. Conformable over rivets.

Performance Factors for Sealing, Potting and Encapsulating

All 3M technologies in the table below are commonly used in sealing, potting and encapsulation applications. Use the table below as a relative comparison of product performance.

Attribute		3M™ Scotch-Weld™ Structural Adhesives	3M™ Hot Melt Adhesives	3M™ Adhesive Sealants	3M™ Extreme Sealing Tapes
Sealing	Flexibility	N/A	N/A	**Best**	**Best**
	Ease of Application	N/A	N/A	**Best**	Better
	Time to Paint (or handle part)	N/A	N/A	Good	**Best**
	Immediate Rework	N/A	N/A	**Best**	Good
Potting and Encapsulating	Temperature and Solvent Resistance	**Best**	Better	Good	N/A
	Time to Paint (or handle part)	Good	**Best**	Good	N/A
	Flowability*	**Best**	Better	Good	N/A
	Adhesion to Substrates	**Best**	Better	Good	N/A

*3M™ Scotch-Weld™ Structural Adhesives and 3M™ Hot Melt Adhesives are used for potting and encapsulating where their flow and conformability allow them to fill into, or dome over, complex shapes. 3M™ Adhesive Sealants are thick and can be dispensed into wide vertical or horizontal gaps, as well as over seams. 3M™ Extreme Sealing Tape seals over seams and narrow gaps but does not flow into gaps. It can conform over low profile objects such as rivet heads.

Sealing, Potting and Encapsulating Assembly Solutions

+	Metals (Aluminum, Steel, Stainless, Galvanized)	Paints (Powder Coat, Painted Metal, Composite Panel)	Glass	Plastics: HSE, MSE (ABS, Acrylic, Polycarbonate, Nylon)	Plastics: LSE (Polypropylene, Polyethylene)
Metals	3M™ Scotch-Weld™ Structural Adhesive 2216, DP270 3M™ Hot Melt Adhesive 3797, 3748 VO 3M™ Adhesive Sealant 540*, 740* 3M™ Extreme Sealing Tape 4411B, 4411N, 4411G	3M™ Scotch-Weld™ Structural Adhesive 2216, DP604NS 3M™ Hot Melt Adhesive 3797, 3748 VO 3M™ Adhesive Sealant 540*, 740* 3M™ Extreme Sealing Tape 4411B, 4411N, 4411G	3M™ Scotch-Weld™ Structural Adhesive DP125 Gray, DP100 Plus Clear 3M™ Adhesive Sealant 540*, 740* 3M™ Extreme Sealing Tape 4411B, 4411N, 4411G	3M™ Scotch-Weld™ Structural Adhesive 2216, DP604NS 3M™ Hot Melt Adhesive 3797, 3748 VO 3M™ Adhesive Sealant 540*, 740* 3M™ Extreme Sealing Tape 4411B, 4411N, 4411G	3M™ Scotch-Weld™ Structural Adhesive DP8010 Blue 3M™ Hot Melt Adhesive 3797, 3748 VO 3M™ Adhesive Sealant 540*, 740* 3M™ Extreme Sealing Tape 4411B*, 4411N*, 4411G*
Paints		3M™ Scotch-Weld™ Structural Adhesive 2216, DP604NS 3M™ Adhesive Sealant 540*, 740* 3M™ Extreme Sealing Tape 4411B, 4411N, 4411G	3M™ Scotch-Weld™ Structural Adhesive DP125 Gray, DP100 Plus Clear 3M™ Adhesive Sealant 540*, 740* 3M™ Extreme Sealing Tape 4411B, 4411N, 4411G	3M™ Scotch-Weld™ Structural Adhesive 2216, DP604NS 3M™ Adhesive Sealant 540*, 740* 3M™ Extreme Sealing Tape 4411B, 4411N, 4411G	3M™ Scotch-Weld™ Structural Adhesive DP8010 Blue 3M™ Adhesive Sealant 540*, 740* 3M™ Extreme Sealing Tape 4411B*, 4411N*, 4411G*
Glass			3M™ Scotch-Weld™ Structural Adhesive DP125 Gray, DP100 Plus Clear 3M™ Adhesive Sealant 540*, 740* 3M™ Extreme Sealing Tape 4411B, 4411N, 4411G	3M™ Scotch-Weld™ Structural Adhesive DP125 Gray, DP100 Plus Clear 3M™ Adhesive Sealant 540*, 740* 3M™ Extreme Sealing Tape 4411B, 4411N, 4411G	3M™ Scotch-Weld™ Structural Adhesive DP8010 Blue 3M™ Adhesive Sealant 540*, 740* 3M™ Extreme Sealing Tape 4411B*, 4411N*, 4411G*
Plastics: HSE, MSE				3M™ Scotch-Weld™ Structural Adhesive 2216, DP604NS 3M™ Hot Melt Adhesive 3797, 3748 VO 3M™ Adhesive Sealant 540*, 740* 3M™ Extreme Sealing Tape 4411B, 4411N, 4411G	3M™ Scotch-Weld™ Structural Adhesive DP8010 Blue 3M™ Hot Melt Adhesive 3797, 3748 VO 3M™ Adhesive Sealant 540*, 740* 3M™ Extreme Sealing Tape 4411B*, 4411N*, 4411G*
Plastics: LSE					3M™ Scotch-Weld™ Structural Adhesive DP8010 Blue 3M™ Hot Melt Adhesive 3797, 3748 VO 3M™ Adhesive Sealant 540*, 740* 3M™ Extreme Sealing Tape 4411B*, 4411N*, 4411G*

*Primers may also be required in some cases. See specific product pages for primer details.


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This guide lists products that are commonly used for this specific application. It is important that the customer evaluates these suggested products in their specific application.

Substrates and Adhesion — A Surface Phenomenon, So Know Surfaces Well.

Adhesive attaches to the surfaces of two substrates, unlike a process that fuses the substrates into a unified whole such as welding or solvent activation of plastics. When selecting a 3M adhesive or tape, surface condition must be considered: roughness, smoothness, porosity, coated, uncoated, cleanliness, flexibility size of part and surface energy of part.

Adhesive paste, for example, flows readily into a rough surface for improved effective adhesion. Flexible materials such as paper or thin gauge metal can be bonded with thin adhesive transfer tape. Large rigid parts with smooth clean surfaces can be bonded with a variety of 3M product ranging from double-coated foam tapes to two-part structural adhesives. Some plastics have plasticizers which migrate to the surface and degrade the bond over time, so plasticizer-resistant adhesive or tape is essential. If the surface has been powder coat painted, the coating is the bonding surface rather than the substrate, and you would want to consider a 3M tape or adhesive developed specifically for the surface.

Surface energy ranges from high to low. To illustrate the concept of surface energy, think of water on an unwaxed hood of a car. The unwaxed hood has high surface energy and the water on the hood flows into puddles. In comparison, a waxed hood has low surface energy and the water beads up rather than flow out. Similar to water, adhesive on a high surface energy flows and "wets out" the surface. "Wetting out" is required to form a strong bond.

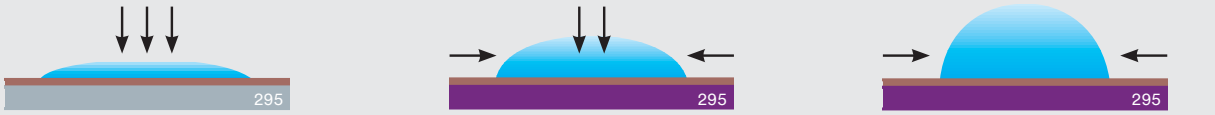
As a rule of thumb, the higher the surface energy, the greater the strength of the adhesion.

Specially formulated adhesives are available for low surface energy surfaces. The following illustrations and surface rankings give an idea of the relative surface energy.

Regardless of surface energy, the substrate must be unified, dry and clean to maximize adhesive contact.

Surface Energy Chart

Metal Surfaces (High Surface Energy) | **High Surface Energy Plastics (HSE)** | **Low Surface Energy Plastics (LSE)**



mJ/m²	Surfaces
1103	Copper
840	Aluminum
753	Zinc
526	Tin
458	Lead
700–1100	Stainless Steel
250–500	Glass Porcelain

mJ/m²	Surfaces
50	Polyimide Industrial Film
47	Phenolic
46	Nylon
45	Alkyd Enamel
43	Polyester

mJ/m²	Surfaces
43	Epoxy Paint
43	Polyurethane Paint
42	ABS
42	Polycarbonate
39	PVC Rigid
38	Modified PPE Resin
38	Acrylic

mJ/m²	Surfaces
37	PVA
36	Polystyrene
36	Acetal
33	EVA
31	Polyethylene
29	Polypropylene
28	Polyvinyl Fluoride Film
18	PTFE
Broad Range	Powder Coated Paints

Note: These values are provided as a guide. Formulation modifications can substantially alter surface energies.

The best formulas deliver the best performance.

Powerful Adhesive and Sealant Solutions

3M offers a wide range of innovative adhesives and sealants designed for industrial markets. High quality, precision formulations with proven performance provide reliable, long-term durability for a variety of applications, indoors and out.

3M | Scotch-Weld™ Structural Adhesive

Design with Confidence. Build to Last.

In today's world, successful new products demand advancements in design, manufacturing processes and end-use performance. Industrial engineering and design professionals around the world depend on 3M™ Scotch-Weld™ Structural Adhesives to help them design beyond the limits of mechanical fasteners to create next generation products.

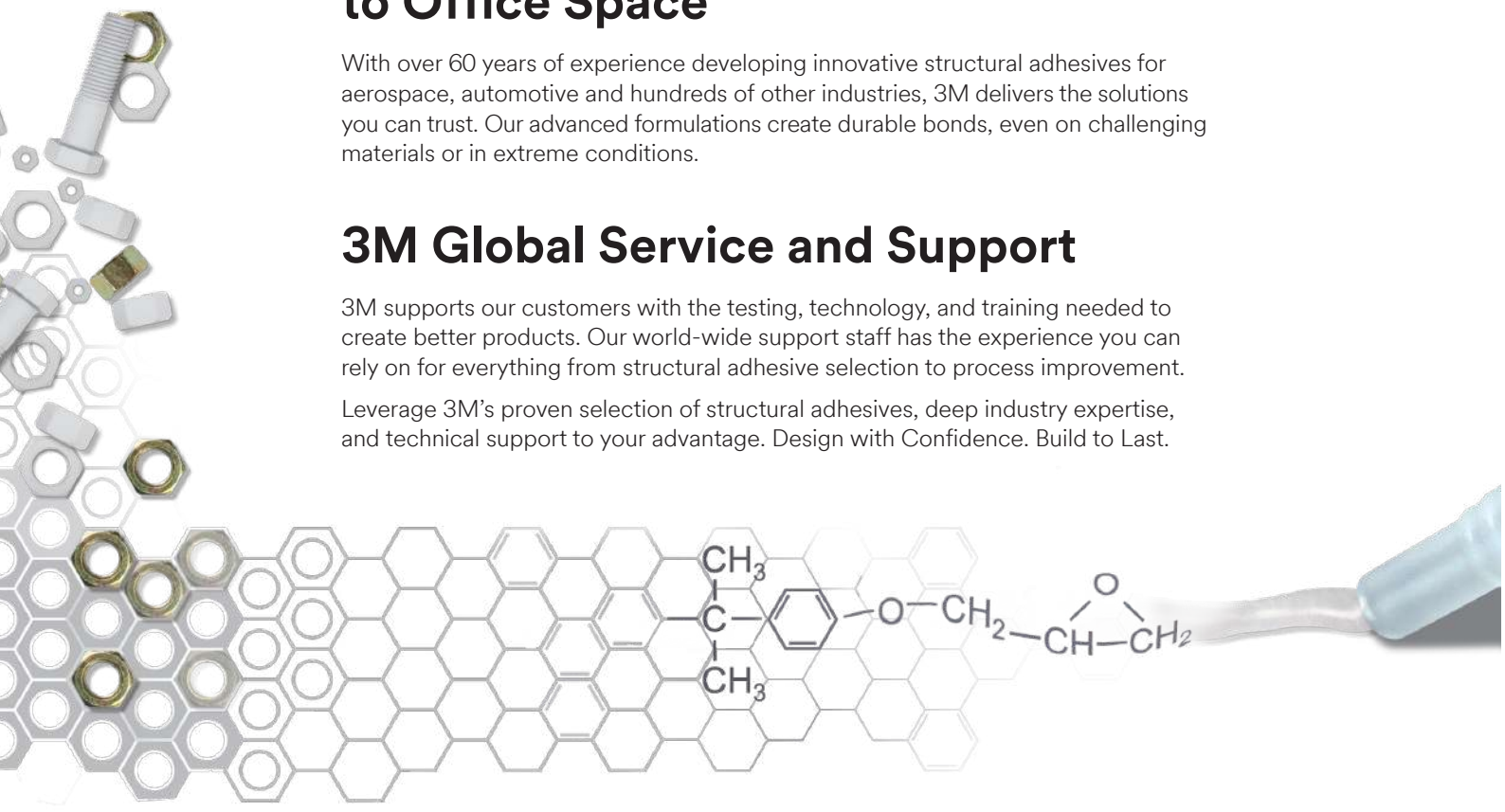
Trusted Innovations from Aerospace to Office Space

With over 60 years of experience developing innovative structural adhesives for aerospace, automotive and hundreds of other industries, 3M delivers the solutions you can trust. Our advanced formulations create durable bonds, even on challenging materials or in extreme conditions.

3M Global Service and Support

3M supports our customers with the testing, technology, and training needed to create better products. Our world-wide support staff has the experience you can rely on for everything from structural adhesive selection to process improvement.

Leverage 3M's proven selection of structural adhesives, deep industry expertise, and technical support to your advantage. Design with Confidence. Build to Last.



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3M™ Scotch-Weld™ Structural Adhesives are Transforming the Way Engineers Think

Advancing Design, Process and Performance

The benefits of designing and building products with 3M™ Scotch-Weld™ Structural Adhesives help drive product success. Eliminating mechanical fasteners provides a wide range of benefits for all stages of product development.



Improve Aesthetics: Improve product appearance with invisible joints and smoother bond lines, reduce weight and noise, enhance corrosion and fatigue resistance, and more.

Freedom of Design: Join composites to metal, build with hard-to-bond plastics, and use thinner, lighter weight materials.



Enhance Productivity: Reduce labor and material costs, build faster with minimal surface prep and match cure rates to your process needs.

Accurate and Easy: Dispense by hand or with automated equipment, and choose from a wide range of viscosities and flow rates.



Strong, Flexible Bonds: Adhesives bond and seal simultaneously, eliminate stress concentration and absorb shock and vibration for durable bonds.

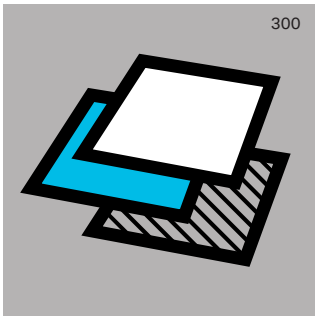
Increased Durability: Resist chemicals, environment, galvanic corrosion, fatigue, and material separation along edges or corners.

Simplifying Adhesive Decisions for Your Application

The following questions will help you narrow adhesive choices to a few possibilities for evaluation.

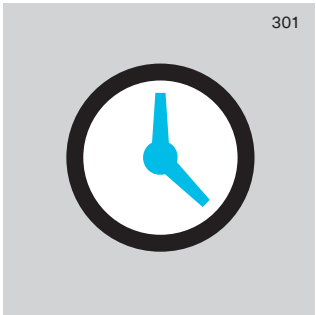
Q: What materials will be bonded?

A: Structural adhesives work by adhering to the top surface of the bonded parts, so it's important to know the exact material and condition on those surfaces. For metals, will the adhesive be applied to bare metal, or will there be a paint or coating on the surface? For plastics, exactly which base resin? Could there be residual release agents on the surfaces used for mold release?



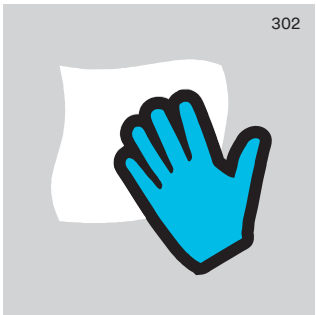
Q: What is the preferred cure speed?

A: The chosen structural adhesive must have enough work life (open time, pot life) to allow proper mixing and application of the adhesive and assembling of the bonded parts. Smaller assemblies or shorter cycle time production processes may be able to use a faster curing adhesive with a work life of only five minutes or less, while larger assemblies that require alignment and clamping will probably need a work life of 20 minutes or more.



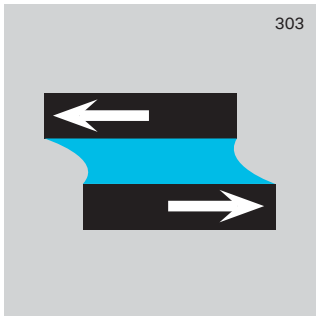
Q: What surface preparation will be required?

A: Structural adhesives generally prefer clean, rough, dry surfaces for highest bond strength. This typically means either light abrasion and solvent cleaning of the surface, or solvent cleaning followed by chemical etching or applying a primer. Adhesion tests should be performed to determine the adequate surface preparation for a specific application.



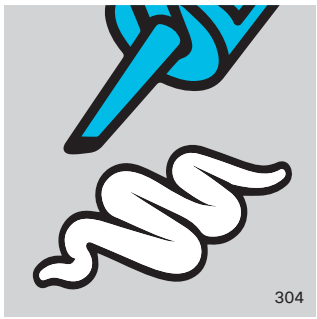
Q: What types of joints are best for structural adhesives?

A: Joint designs that put the adhesive bond under shear, tension, or compression forces will provide the highest strength. Designs that tend to apply peel or cleavage forces to the adhesive, where the applied stresses are not distributed over the entire bond area, will have lower bond strength, but the bond may still be sufficient for the needs of the application. In addition, optimum bond line thickness typically ranges from 0.005" to 0.020". The adhesive qualification process should always include testing of prototype assemblies to ensure the adhesive will provide enough performance.



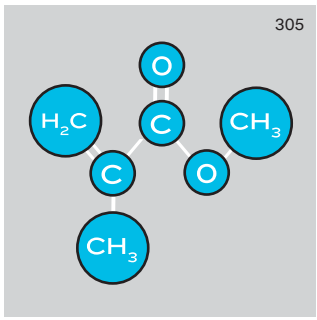
Q: How are structural adhesives used and applied?

A: Structural adhesives come in many forms, including low viscosity liquids and non-sag pastes, one- and two-component formulations, short and long work lives, and various package sizes and shapes. Most two-part structural adhesives are available in both bulk containers and convenient, easy-to-use cartridge mixing systems.



Q: What are the general characteristics of the different types of structural adhesives?

A: All structural adhesives provide at least 1,000 psi of overlap shear strength to aluminum, but the different adhesive chemistries have various properties.



Epoxy adhesives come in both two-part adhesives (that cure upon mixing the two components) and one-part adhesives (that cure with temperature). They generally have the highest strength and overall performance. They also provide the best resistance to high temperatures, solvents and outdoor weathering. They adhere well to metals, woods and concrete, and the flexible epoxy adhesives also bond to some plastics and rubbers. Epoxy adhesives usually require clean, abraded surfaces to obtain maximum bond strength.

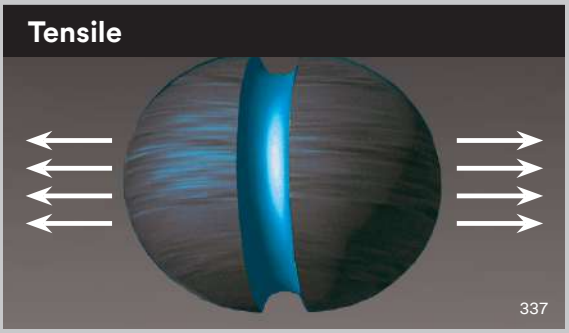
Acrylic adhesives are two-part adhesives that provide excellent bond strength and durability, although slightly lower than epoxy adhesives. However, they have several features that make them easier to use in many applications and manufacturing processes. These benefits include a much faster cure speed, higher tolerance for oily or unprepared bonding surfaces and the ability to bond a wide variety of materials, including nearly all plastics. Newer acrylic adhesive formulations are room temperature stable with a long shelf life, and some have much lower odor than regular acrylic adhesives.

Urethane adhesives are two-part adhesives that are relatively flexible when cured, and therefore tend to have excellent impact resistance and good adhesion to most plastics. They also bond well to woods, concrete and rubbers, but they tend to have reduced resistance to solvents and high temperatures. Uncured adhesive components are sensitive to moisture.

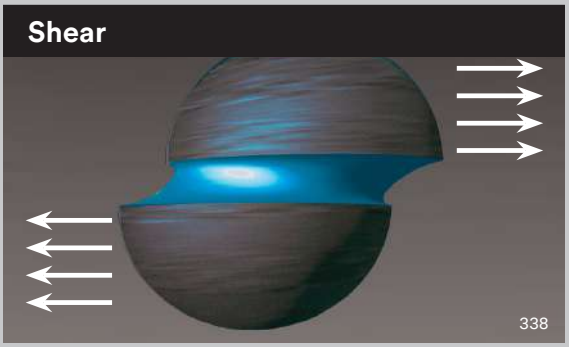
Cyanoacrylate adhesives (instant adhesives) are one-component, lower viscosity liquids that cure extremely quickly with just contact pressure and surface moisture. They adhere well, with thin bond lines, to plastics, metals and rubbers. With the use of primers, they can also adhere to low surface energy plastics and elastomers. They tend to have low flexibility, peel strength and impact resistance compared to other structural adhesives. They are generally used for applications such as gasket bonding and smaller assemblies.

Anaerobic adhesives are one-part adhesives that cure on active metal surfaces when oxygen gets excluded from the bond line. These products keep your factory running efficiently, reducing maintenance and leakage. They do not bond well to glass, plastics or rubbers, and are primarily used for applications such as locking threads and sealing pipe connections.

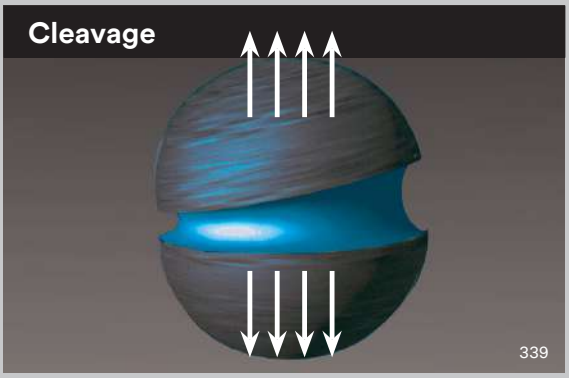
PUR adhesives (Polyurethane-reactive adhesives) are one-part adhesives that apply like a hot melt, but cure with ambient moisture for near structural strength bonds. Fast set times and build strength over the next 24–48 hours can reach as much as 1,000 psi in overlap shear strength. They are flexible and resistant to temperature extremes and most solvents. Most commonly used in bonds where at least one substrate contains or transmits moisture (such as wood or plastic).



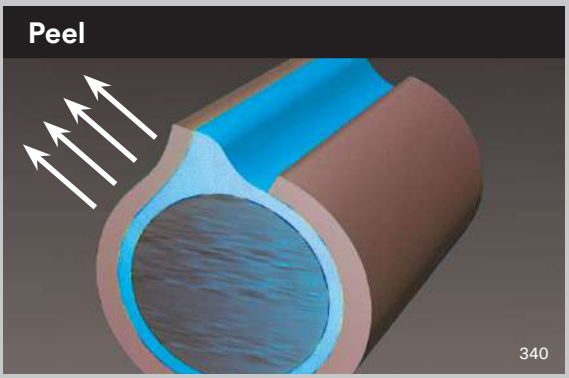
Tensile is pull exerted equally over the entire joint. Pull direction is straight and away from the adhesive bond.



Shear is pull directed across the adhesive, forcing the substrates to slide over each other.



Cleavage is pull concentrated at one edge of the joint, exerting a prying force on the bond. The other edge of the joint is theoretically under zero stress.



Peel is concentrated along a thin line at the edge of the bond where one substrate is flexible.

Key markets and applications for 3M™ Scotch-Weld™ Structural Adhesives



Sporting Goods

Key Features and Benefits

- Excellent impact resistance of high stressed bonds
- High strength for small joints
- High strength bonding of rubber, composites and metals to each other





Key Products
DP420NS, DP8010, DP8710NS, PR100, DP8910NS



Specialty Vehicle

Key Features and Benefits

- Weight reduction
- High strength
- Vibration and fatigue resistance





Key Products
DP6330NS, DP8410NS, DP8610NS, LSB60NS, TL42



Signage

Key Features and Benefits

- One adhesive to bond all of your substrates
- Strong formulations and thin bond lines
- Weather resistance
- UL recognition





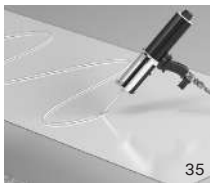
Key Products
DP100 Plus, DP8405NS, DP8710NS, DP8805NS, PR Gel

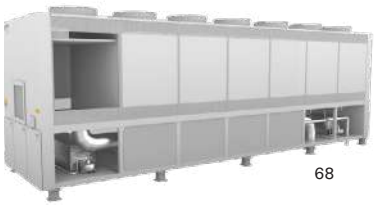


Metalworking

Key Features and Benefits

- High strength and durability
- Reduced surface preparation before bonding, and no grinding after bonding
- Save weight and improve appearance with adhesives instead of welds or rivets





Key Products
DP420NS, DP8407NS, DP8410NS



Electronics

Key Features and Benefits

- Low halogen formulations available to meet customer needs
- Fast cure to speed production
- Protect sensitive electrical connections from the environment





Key Products
DP270, DP420LH, DP8705NS, DP8910NS, TS230, PR100, 6101



Appliance

Key Features and Benefits

- Simplify operations by bonding after powdercoating
- Eliminate the challenge of bonding rigid to flexible substrates
- Noise damping
- Reduce complexity-bond and seal glass to metal in one step
- **Key Products**
  DP125, DP6310NS, DP8610NS, DP8710NS, DP8810NS, TS230, TL42







Aerospace

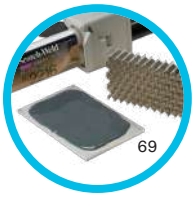
Key Features and Benefits

- Available in UL94 or FST compliant options
- Strong, yet flexible bond lines

Key Products
2216, DP100FR, DP420NS, DP640, TL71







Plastic, Composite & Rubber

Key Features and Benefits

- Bonding of low surface energy plastics without priming
- Impact resistant composite and nylon bonding

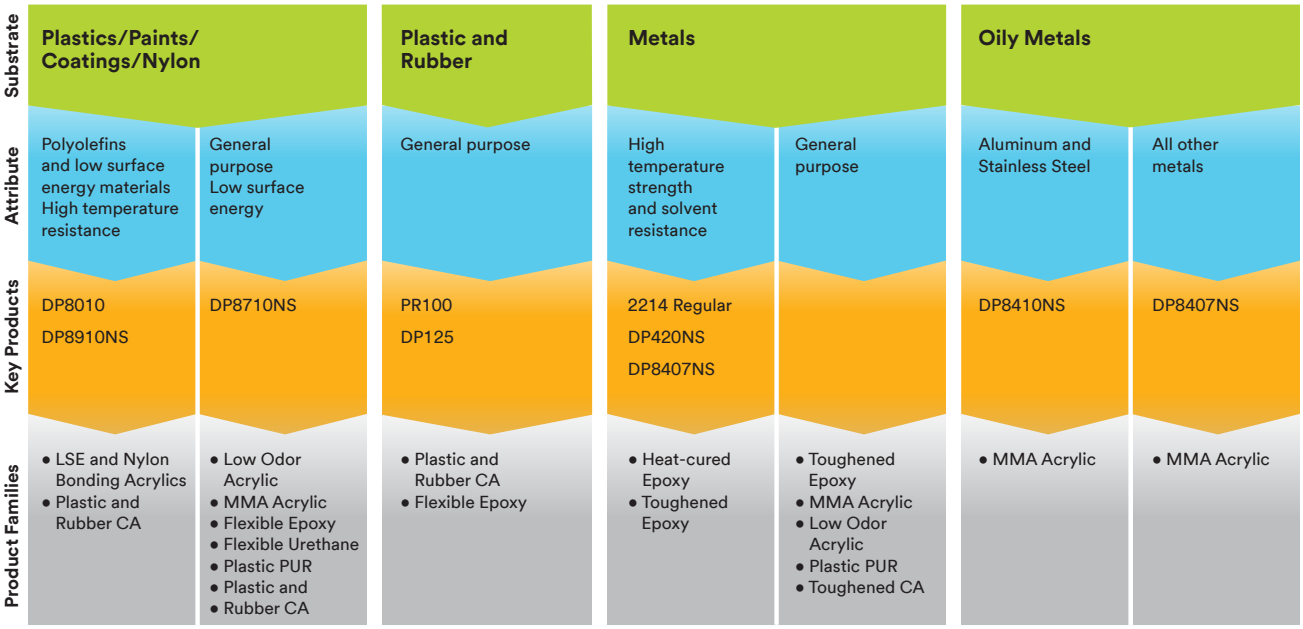




Key Products
DP100 Plus, DP6310NS, DP8010, DP8405NS, DP8810NS, DP8910NS, TS230, PR100

3M™ Scotch-Weld™ Adhesives Selector Guide

Step 1: Select most difficult substrate. **Step 2:** Determine key attribute. **Step 3:** Select product family.



*See chart in back of guide for more details.

Substrate Attribute Key Product Product Families

Structural Adhesive Families

Rigid Epoxy Adhesives — Higher tensile strength at lower elongations for greater long-term holding power. Mostly used for rigid substrates (metals) with high static loads.

Flexible Epoxy Adhesives — Lower tensile strength at higher elongations for greater capability to withstand differential movement of bonded parts; higher peel strength and higher adhesion to most plastics.

Toughened Epoxy Adhesives — Higher tensile strength at lower elongations for fatigue resistance; best suited for dynamic stresses. They have long-term holding power, higher peel strength, and exceptional higher resistance against shock, vibration and impact loads. Lower adhesion to most thermoplastics.

Heat-cured Epoxy Adhesives — One-component, rigid adhesives with outstanding strength at elevated temperatures. These adhesives require a thermal cure, typically around 250–350°F (120–180°C) for 40–60 minutes.

MMA Acrylic Adhesives — Provides greater adhesion to a wide variety of materials including most plastics and paint systems, are tolerant of many surface contaminations. High impact resistance for metal bonds.

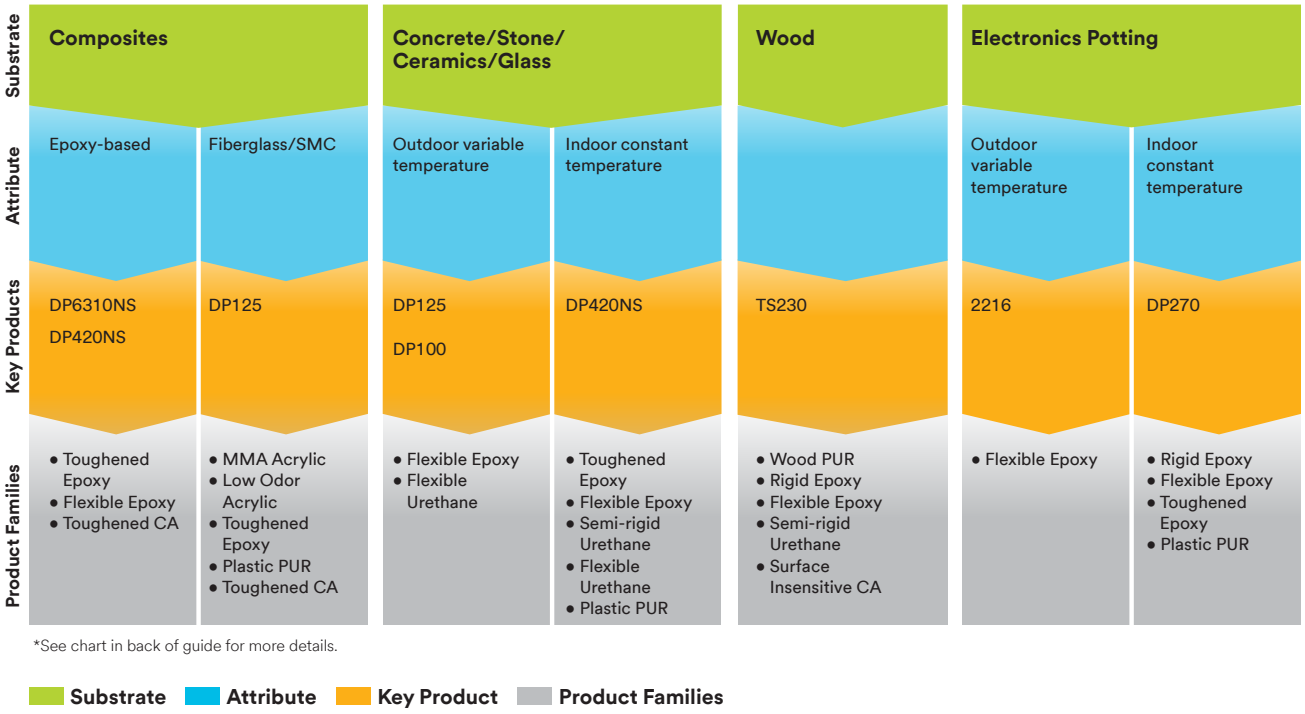
Low Odor Acrylic Adhesives — Less odor than typical acrylic adhesives and faster rate of strength build than most two-part structural adhesives. Excellent adhesion to a variety of materials, including plastics and paint systems. They provide high impact resistance for plastic bonds; and are tolerant of many surface contaminations.

LSE and Nylon Bonding Acrylic Adhesives — Outstanding adhesion to polyolefin materials such as polypropylene, polyethylene and TPO without surface treatment.

Semi-rigid Urethane Adhesives — Higher tensile modulus and lower elongation capability, with greater long-term holding power.

Flexible Urethane Adhesives — Lower tensile modulus and higher elongation capability. Excellent adhesion to most plastics.

Step 1: Select most difficult substrate. **Step 2:** Determine key attribute. **Step 3:** Select product family.



*See chart in back of guide for more details.

Instant Adhesive Families

Plastic & Rubber (PR) Instant Adhesives bond to the widest variety of materials, have an extremely fast cure speed, and come in a wide range of viscosity.

Surface Insensitive (SI) Instant Adhesives cure even on acidic surfaces (such as wood, paper, leather, and ceramic); these adhesives have a slower cure speed than traditional instant adhesives.

Low Odor (LO) Instant Adhesives provide a reduced blooming effect for applications that require an improved appearance.

General Purpose (EC) Instant Adhesives are slightly less expensive products that have lower strength and impact resistance compared to traditional instant adhesives.

Super Fast (SF) Instant Adhesives provide the fastest rate of cure speed for most applications.

Rubber Toughened (RT) Instant Adhesives can be used for applications that require improved impact strength or vibration resistance; preferred for applications bonding two rigid materials together.

Metal (MC) Instant Adhesives provide performance on metal substrates.

Engineered Grade (EG) Instant Adhesives provide excellent overall performance for most applications.

Anaerobic Adhesive Families

Threadlockers (TL) hold screws and other threaded fasteners in place to prevent loosening from shock, vibration, and thermal expansion and contraction; these adhesives replace lock washers and nylon-insert nuts.

PUR Adhesive Families

Wood PUR — Higher shear strength at lower elongations for long term holding power. Mostly used for rigid wood substrates and some plastics.

Plastic PUR — Higher impact strength, elongation and flexibility for greater capacity to withstand movement of bonded parts. Higher adhesion to most plastics, glass and aluminum.

Substrate Selector

Step 1: Select substrate. **Step 2:** Determine key attribute. **Step 3:** Select product (see definitions below).

		Plastic/Paints/Coatings			Metals			Oily Metals		Composites		Concrete/Stone/Ceramics/Glass		
		Low Surface Energy	General Purpose	Rubber	Temperature and Solvent Resistant	Stainless Steel & Aluminum	Other Metals	Stainless Steel & Aluminum	Other Metals	Fiberglass/ SMC	Epoxy	Indoor	Outdoor	Wood
Plastic/Paints/Coatings	**Low Surface Energy**	**LSE Acrylic*** Plastic & Rubber CA	**LSE Acrylic*** Plastic & Rubber CA	**Plastic & Rubber CA***	N/A	**LSE Acrylic**	**LSE Acrylic**	**LSE Acrylic**	**LSE Acrylic**	**LSE Acrylic** Toughened CA*	**LSE Acrylic** Toughened CA*	**LSE Acrylic**	**LSE Acrylic**	**LSE Acrylic** Surface Insensitive CA*
	General Purpose	**LSE Acrylic*** Plastic & Rubber CA	**LO Acrylic** MMA Acrylic Plastic PUR Flexible Epoxy Plastic & Rubber CA	**Plastic & Rubber CA*** Plastic PUR	**Toughened Epoxy** Flexible Epoxy	**LO Acrylic** MMA Acrylic Flexible Epoxy Plastic PUR Plastic & Rubber CA	**DP8407NS** Toughened Epoxy Flexible Epoxy Plastic PUR Plastic & Rubber CA	**LO Acrylic** MMA Acrylic	**DP8407NS**	**Semi-rigid Urethane MMA Acrylic** LO Acrylic Flexible Urethane Plastic PUR Toughened CA	**Semi-rigid Urethane MMA Acrylic** Flexible Epoxy Toughened Epoxy Plastic PUR Toughened CA	**Flexible Epoxy** Rigid Urethane Flexible Urethane Plastic PUR	**Flexible Epoxy** Flexible Urethane Plastic PUR	**Wood PUR** Flexible Epoxy Rigid Urethane Surface Insensitive CA
Rubber		**Plastic & Rubber CA***	**Plastic & Rubber CA*** Plastic PUR	**Plastic & Rubber CA***	N/A	**Flexible Epoxy** Plastic PUR	**Flexible Epoxy** Plastic PUR	N/A	N/A	**Plastic & Rubber CA*** Plastic PUR	**Plastic & Rubber CA*** Plastic PUR	**Flexible Epoxy** Plastic PUR	**Flexible Epoxy** Plastic PUR	**Surface Insensitive CA*** Plastic PUR Flexible Epoxy
Metals	**Temperature and Solvent Resistant**	N/A	**Toughened Epoxy** Flexible Epoxy	N/A	**Toughened Epoxy** Flexible Epoxy	**Toughened Epoxy** Flexible Epoxy	**One-part Heat-cured Epoxy** Toughened Epoxy	**Heat-cured Epoxy**	**Heat-cured Epoxy**	**Toughened Epoxy** Flexible Epoxy Plastic PUR	**Toughened Epoxy** Flexible Epoxy Plastic PUR	**Toughened Epoxy** Flexible Epoxy	**Flexible Epoxy**	**Toughened Epoxy** Plastic PUR Flexible Epoxy
	Stainless Steel & Aluminum	**LSE Acrylic**	**LO Acrylic** MMA Acrylic Flexible Epoxy Plastic PUR Plastic & Rubber CA	**Plastic & Rubber CA*** Plastic PUR	**Toughened Epoxy** Flexible Epoxy	**LO Acrylic** MMA Acrylic Toughened Epoxy Flexible Epoxy Rigid Epoxy Toughened CA	**Heat-cured Epoxy** Toughened Epoxy	**LO Acrylic** MMA Acrylic	**DP8407NS** Heat-cured Epoxy	**Semi-rigid Urethane MMA Acrylic** LO Acrylic Toughened Epoxy Plastic PUR Toughened CA	**Semi-rigid Urethane Toughened Epoxy** MMA Acrylic LO Acrylic Plastic PUR Toughened CA	**Toughened Epoxy** Flexible Epoxy	**Flexible Epoxy**	**Plastic PUR** Toughened Epoxy Rigid Epoxy Flexible Epoxy Surface Insensitive CA
	Other Metals	**LSE Acrylic**	**DP8407NS** Toughened Epoxy Flexible Epoxy Plastic PUR Plastic & Rubber CA	**Plastic & Rubber CA*** Plastic PUR	**Heat-cured Epoxy** Toughened Epoxy	**Heat-cured Epoxy** Toughened Epoxy	**Toughened Epoxy** Flexible Epoxy Heat-cured Epoxy DP810	**DP8407NS** Heat-cured Epoxy	**DP8407NS** Heat-cured Epoxy	**Semi-rigid Urethane Toughened Epoxy** Flexible Epoxy Plastic PUR	**Toughened Epoxy** Flexible Epoxy Heat-cured Epoxy Plastic PUR	**Toughened Epoxy** Heat-cured Epoxy	**Flexible Epoxy**	**Plastic PUR** Toughened Epoxy
Oily Metals	**Stainless Steel & Aluminum**	**LSE Acrylic**	**LO Acrylic** MMA Acrylic	N/A	**Heat-cured Epoxy**	**LO Acrylic** MMA Acrylic	**DP8407NS** Heat-cured Epoxy	**LO Acrylic** MMA Acrylic	**DP8407NS**	**MMA Acrylic** LO Acrylic	**MMA Acrylic** LO Acrylic Heat-cured Epoxy	N/A	N/A	N/A
	Other Metals	LSE Acrylic	DP8407NS	N/A	**Heat-cured Epoxy**	**DP8407NS** Heat-cured Epoxy	**DP8407NS** Heat-cured Epoxy	**DP8407NS**	**DP8407NS** Heat-cured Epoxy	**DP8407NS**	**Heat-cured Epoxy**	N/A	N/A	N/A
Composites	**Fiberglass/ SMC**	**LSE Acrylic** Toughened CA*	**Semi-rigid Urethane MMA Acrylic** LO Acrylic Flexible Urethane Plastic PUR Toughened CA	**Plastic & Rubber CA*** Plastic PUR	**Toughened Epoxy** Flexible Epoxy Plastic PUR	**Semi-rigid Urethane MMA Acrylic** LO Acrylic Toughened Epoxy Plastic PUR Toughened CA	**Semi-rigid Urethane Toughened Epoxy** Flexible Epoxy Plastic PUR	**MMA Acrylic** LO Acrylic	**DP8407NS**	**Semi-rigid Urethane MMA Acrylic** LO Acrylic Toughened Epoxy Flexible Epoxy Plastic PUR Toughened CA	**Semi-rigid Urethane Tough ed Epoxy** Flexible Epoxy Plastic PUR Toughened CA	**Semi-rigid Urethane Toughened Epoxy** Flexible Epoxy Plastic PUR	**Semi-rigid Urethane Flexible Epoxy** Flexible Urethane Plastic PUR	**Semi-rigid Urethane Toughened Epoxy** Rigid Urethane Flexible Epoxy Plastic PUR
	Epoxy	**LSE Acrylic** Toughened CA*	**Semi-rigid Urethane MMA Acrylic** Flexible Epoxy Toughened Epoxy Plastic PUR Toughened CA	**Plastic & Rubber CA*** Plastic PUR	**Toughened Epoxy** Flexible Epoxy Plastic PUR	**Semi-rigid Urethane Toughened Epoxy** MMA Acrylic LO Acrylic Plastic PUR Toughened CA	**Toughened Epoxy** Flexible Epoxy Heat Cured Epoxy Plastic PUR	**MMA Acrylic** LO Acrylic Heat Cured Epoxy	**Heat Cured Epoxy**	**Semi-rigid Urethane Toughened Epoxy** Flexible Epoxy Plastic PUR Toughened CA	**Toughened Epoxy** Flexible Epoxy Plastic PUR Toughened CA	**Semi-rigid Urethane Toughened Epoxy** Flexible Epoxy Plastic PUR	**Semi-rigid Urethane Flexible Epoxy** Plastic PUR	**Semi-rigid Urethane Toughened Epoxy** Flexible Epoxy Plastic PUR
Concrete/Stone/Ceramics/Glass	**Indoor**	**LSE Acrylic**	**Flexible Epoxy** Rigid Urethane Flexible Urethane Plastic PUR	Flexible Epoxy Plastic PUR	**Toughened Epoxy** Flexible Epoxy	**Toughened Epoxy** Flexible Epoxy	**Toughened Epoxy** Heat Cured Epoxy	N/A	N/A	**Semi-rigid Urethane Toughened Epoxy** Flexible Epoxy Plastic PUR	**Semi-rigid Urethane Toughened Epoxy** Flexible Epoxy Plastic PUR	**Toughened Epoxy** Flexible Epoxy Rigid Urethane Flexible Urethane	**Flexible Epoxy** Flexible Urethane	**Flexible Epoxy** Plastic PUR Flexible Urethane
	Outdoor	LSE Acrylic	**Flexible Epoxy** Flexible Urethane Plastic PUR	Flexible Epoxy Plastic PUR	**Flexible Epoxy**	**Flexible Epoxy**	**Flexible Epoxy**	N/A	N/A	**Semi-rigid Urethane Flexible Epoxy** Flexible Urethane Plastic PUR	**Semi-rigid Urethane Flexible Epoxy** Plastic PUR	**Flexible Epoxy** Flexible Urethane	**Flexible Epoxy** Flexible Urethane	**Flexible Epoxy** Plastic PUR Flexible Urethane
Wood		**LSE Acrylic** Surface Insensitive CA*	**Wood PUR** Flexible Epoxy Rigid Urethane Surface Insensitive CA	**Wood PUR** Surface Insensitive CA*	**Toughened Epoxy** Plastic PUR Flexible Epoxy	**Wood PUR** Toughened Epoxy Rigid Epoxy Flexible Epoxy Surface Insensitive CA	**Wood PUR** Toughened Epoxy	N/A	N/A	**Semi-rigid Urethane Toughened Epoxy** Rigid Urethane Flexible Epoxy Plastic PUR	**Semi-rigid Urethane Toughened Epoxy** Flexible Epoxy Plastic PUR	**Flexible Epoxy** Plastic PUR Flexible Urethane	**Flexible Epoxy** Plastic PUR Flexible Urethane	**Wood PUR** Rigid Epoxy Toughened Epoxy Rigid Urethane Surface Insensitive CA

Bold = Best In Class Product Light = Suggested Alternate Product *With Primer

Coverage Guide

Approximate Coverages for 3M™ Scotch-Weld™ Adhesives in Duo-Pak Cartridges

Bead Size Dimension* inches (mm)	Linear ft./m per 37mL (2:1 Cart.)	Linear ft./m per 43mL (2:3 Cart.)	Linear ft./m per 45mL (10:1 Cart.)	Linear ft./m per 50mL (1:1 & Cart.)	Linear ft./m per 200mL (1:1 & 2:1 Cart.)	Linear ft./m per 400mL (1:1 & 2:1 Cart.)	Linear ft./m per 490mL (10:1 Cart.)	Linear ft./m per 295mL (1/10 gal. Cart.)
1/2 in. (12.7mm)	2 ft. (0.6m)	2 ft. (0.7m)	2 ft. (0.7m)	2.5 ft. (0.8m)	10 ft. (3m)	21 ft. (6m)	26 ft. (8m)	20 ft. (6m)
3/8 in. (9.5mm)	3.5 ft. (1m)	4 ft. (1m)	4 ft. (1m)	4.5 ft. (1m)	18 ft. (6m)	37 ft. (11m)	45 ft. (14m)	35 ft. (11m)
1/4 in. (6.4mm)	8 ft. (2m)	9 ft. (3m)	9 ft. (3m)	11 ft. (3m)	41 ft. (13m)	83 ft. (25m)	102 ft. (31m)	79 ft. (24m)
1/8 in. (3.2mm)	31 ft. (9m)	36 ft. (11m)	37 ft. (11m)	42 ft. (13m)	165 ft. (50m)	331 ft. (101m)	405 ft. (123m)	312 ft. (95m)
1/16 in. (1.6mm)	122 ft. (37m)	142 ft. (43m)	147 ft. (45m)	165 ft. (50m)	656 ft. (200m)	1,313 ft. (400m)	1,600 ft. (488m)	1,234 ft. (376m)

Coverages per Gallon for Various Thicknesses of 100% Solids 3M Adhesives

Wet Thickness inches (mm)	Ft^2/gal. (m^2/L)	Gal./1,000 ft^2 (L/1,000m^2)
1/2 in. (12.7mm)	3 ft^2 (0.1m^2)	312 gal. (12,700L)
1/8 in. (3.2mm)	13 ft^2 (0.3m^2)	78 gal. (3,175L)
1/16 in. (1.6mm)	26 ft^2 (0.6m^2)	39 gal. (1,587L)
1/32 in. (0.8mm)	51 ft^2 (1m^2)	20 gal. (794L)
25 mils (0.64mm)	64 ft^2 (1.5m^2)	16 gal. (635L)
5 mils (0.13mm)	320 ft^2 (8m^2)	3 gal. (127L)

Coverages per Gallon for Various Bead Sizes of 100% Solids 3M Adhesives

Bead Size Dimension* inches (mm)	Approx. lineal ft./gal. (m/L)	Approx. gal./1,000 lineal ft. (liter/1,000m)
1/2 in. (12.7mm)	196 ft. (16m)	5 gal. (63L)
3/8 in. (9.5mm)	350 ft. (28m)	3 gal. (36L)
1/4 in. (6.4mm)	785 ft. (63m)	1.3 gal. (16L)
1/8 in. (3.2mm)	3,130 ft. (252m)	0.3 gal. (4L)
1/16 in. (1.6mm)	12,420 ft. (1,000m)	0.1 gal. (1L)

*Bead size is semi-circular bead with width equal to size noted and height at center of bead equal to 1/2 the width.

Coverage Guide for 3M™ Scotch-Weld™ PUR Adhesives Approximate Coverage per Container (linear foot per container based on 1/8" dia. bead size)

1/10 Gallon Cartridge	2k Bag	5 Gallon Pail	55 Gallon Drum
250 ft. (76.2m)	1,650 ft. (502.9m)	13,500 ft. (41448m)	170,200 ft. (51576.9m)

3M™ Scotch-Weld™ Low Odor and MMA Acrylic Adhesives

3M's Low Odor and MMA Acrylic Adhesives are designed for all of your sign application needs. They provide excellent impact strength, high peel strength and greatly extended shelf life compared to ordinary structural adhesives.

With high structural strength, fast cure and environmental resistance, they are the first choice for the sign industry. **DP8705NS, DP8710NS, DP8725NS, DP8405NS, DP8407NS, DP8410NS, DP8425NS, DP8610NS and DP8625NS**



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3M | Scotch-Weld™ Structural Adhesive

Go-to products for Structural Bonding

High Strength and Metal Bonding

DP420NS BLACK

372
- Excellent environmental resistance
- Toughened epoxy for high impact strength
- Excellent fatigue performance
- 20 minute open time

DP8710NS BLACK

371
- Fast rate of strength build
- Low temperature performance
- Excellent impact and peel strength
- 10 minute open time

DP8407NS GRAY

373
- Bonds to bare, oily metals
- Use for pre-powdercoat bonding of active metals
- 6 minute open time

FAST AND LOW ODOR

INCREASE TOUGHNESS

METAL BONDING

DP8010 BLUE

378
- Acrylic adhesive
- Structural bonds to low surface energy plastics
- Medium viscosity
- 10 minute open time

LOW SURFACE ENERGY BONDING

DP100 CLEAR

379
- Epoxy adhesive
- Colorless bonds
- High strength
- 5 minute open time

INSTANT STRENGTH FOR SMALL PARTS

PR100

374
- Cyanoacrylate adhesive
- Bonds metals to plastics including EPDM and nylon*
- Low viscosity

*With appropriate primers.

INCREASE FLEXIBILITY

MULTI-MATERIAL BONDING

RAPID HANDLING STRENGTH

DP125 GRAY

377
- Flexible epoxy
- Bonds to most substrates, including many plastics
- High strength and high peel
- 25 minute open time

DP6310NS GREEN

376
- Urethane adhesive
- Non-sag formulation
- Bond most composites and dissimilar substrates
- 10 minute open time

TS230

375
- Moisture curing, one component, hot melt urethane
- Tough, flexible bond lines
- Structural strength

Plastic and Multi-Material Bonding

Speed

3M™ Scotch-Weld™ Structural Adhesives



3M™ Scotch-Weld™ Rigid Epoxies

	Product (Color)	Key Features	Mix Ratio (Volume) B:A	Approximate Viscosity at 75°F (24°C) (cP)	Approximate Mixed Work Life at 75°F (24°C)	Approximate Time to Handling Strength at 75°F (24°C)	Floating Roller Peel PLI (N/cm) at 75°F (24°C)	Overlap Shear: psi (MPa) -67°F (-55°C)	Overlap Shear: psi (MPa) 75°F (24°C)	Overlap Shear: psi (MPa) 180°F (82°C)	Size	UPC	Stock #
Key Product	**DP100 100** (Clear)	General purpose; Rigid bonds	1:1	13,000	5 min.	20 min.	2 (4)	900 (6)	1,500 (10)	300 (2)	48.5mL	00-638060-08994-1	7100148763
											200mL	00-021200-87260-0	7100075490
											400mL	00-021200-87261-7	7000121318
											5 gal. pail A	00-021200-82345-9	7100086557
											5 gal. pail B	00-021200-82344-2	7100086558
	DP100FR 100FR (Cream)	Flame retardant; UL94 V-0 rating	1:1	80,000	6 min.	20 min.	2 (4)	1,250 (9)	2,200 (15)	800 (6)	48.5mL	00-638060-08989-7	7100148760
											200mL	00-048011-56744-0	7000148268
											5 gal. pail A	00-048011-57230-7	7010366158
											5 gal. pail B	00-048011-57229-1	7010366123
	DP100NS 100NS (Translucent)	General purpose; Non-sag	1:1	95,000	5 min.	20 min.	2 (4)	900 (6)	1,500 (10)	300 (2)	48.5mL	00-638060-08974-3	7100148744
											200mL	00-021200-87264-8	7100014024
											5 gal. pail A	0-00-21200-82257-5	7010367412
											5 gal. pail B	0-00-21200-82256-8	7010295308
	DP270 270 (Black)	Rigid potting compound; Non-corrosive	1:1	12,000	60 min.	3 hours	2 (4)	1,200 (8)	2,500 (17)	300 (2)	48.5mL	00-638060-08975-0	7100148745
											200mL	00-021200-87836-7	7000121252
											400mL	00-021200-87837-4	7100082565
											Gallon kit	00-021200-82263-6	7000121253
											5 gal. pail A	00-021200-82265-0	7000046463
											5 gal. pail B	00-021200-82264-3	7000046439
	DP270 270 (Clear)	Rigid potting compound; Non-corrosive	1:1	12,000	60 min.	3 hours	2 (4)	1,200 (8)	2,500 (17)	300 (2)	48.5mL	00-638060-08973-6	7100148730
											200mL	00-021200-87834-3	7100228179
											5 gal. pail A	00-021200-82251-3	7000028575
											5 gal. pail B	00-021200-82250-6	7000028567
	1751 B/A (Gray)	Excellent void filler; Rigid bonds	3:2	700,000	45 min.	10 hours	4 (7)	1,400 (10)	2,000 (14)	500 (3)	Gallon kit	00-021200-20105-9	7000046339
	1838 B/A (Green)	Multi-purpose; Rigid bonds	4:5	400,000	60 min.	8 hours	4 (7)	1,500 (10)	3,000 (21)	500 (3)	Quart kit	00-021200-20152-3	7000046340
	1838L B/A (Translucent)	Multi-purpose; Rigid bonds	1:1	10,000	60 min.	8 hours	4 (7)	2,000 (14)	2,500 (17)	300 (2)	Quart kit	00-021200-22646-5	7000036224
	2158 B/A (Gray)	Multi-purpose; Rigid bonds	1:1	375,000	2 hours	10 hours	3 (5)	1,500 (10)	2,000 (14)	400 (3)	Gallon kit	00-021200-20262-9	7010330060

For lead times on bulk adhesives, please contact your 3M representative.

Key Product **Denotes product to consider first in this category.** ★ **After Key Products, consider these.**

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3M™ Scotch-Weld™ Structural Adhesives



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3M™ Scotch-Weld™ Flexible Epoxies

	Product (Color)	Key Features	Mix Ratio (Volume) B:A	Approximate Viscosity at 75°F (24°C) (cP)	Approximate Mixed Work Life at 75°F (24°C)	Approximate Time to Handling Strength at 75°F (24°C)	Floating Roller Peel PLI (N/cm) at 75°F (24°C)	Overlap Shear: psi (MPa) -67°F (-55°C)	Overlap Shear: psi (MPa) 75°F (24°C)	Overlap Shear: psi (MPa) 180°F (82°C)	Size	UPC	Stock #
*	**DP100 Plus 100 Plus** (Clear)	Very flexible; Colorless	1:1	8,500	4 min.	20 min.	55 (98)	3,000 (21)	3,500 (24)	200 (1)	48.5mL	00-638060-08976-7	7100148750
											200mL	00-021200-87266-2	7100069498
											5 gal. pail A	00-021200-87198-6	7100046020
											5 gal. pail B	00-021200-87197-9	7100084539
											50 gal drum A	00-068060-00518-2	7100306667
											50 gal drum B	00-068060-00520-5	7100307357
	DP105 105 (Clear)	Very flexible; Colorless	1:1	6,500	5 min.	20 min.	50 (89)	3,500 (24)	2,000 (14)	150 (1)	48.5mL	00-638060-08981-1	7100148733
											200mL	00-021200-87270-9	7010309884
											5 gal. pail A	00-021200-87206-8	7000000856
											5 gal. pail B	00-021200-87205-1	7000000850
	DP110 110 (Gray)	General purpose; Flexible bonds	1:1	55,000	8 min.	20 min.	40 (71)	2,700 (19)	3,500 (24)	250 (2)	48.5mL	00-638060-08990-3	7100148777
											200mL	00-021200-87274-7	7000121312
											5 gal. pail A	00-021200-82472-2	7010299362
											5 gal. pail B	00-021200-82471-5	7010299357
	DP110 110 (Translucent)	General purpose; Flexible bonds	1:1	50,000	8 min.	20 min.	40 (71)	2,500 (17)	2,500 (17)	200 (1)	48.5mL	00-638060-08993-4	7100148762
											200mL	00-021200-87846-6	7000148270
											400mL	00-021200-87847-3	7000148269
											5 gal. pail A	00-021200-82467-8	7010366163
											5 gal. pail B	00-021200-82466-1	7010366143
Key Product	**DP125 125** (Gray)	High performance; Very flexible bonds	1:1	52,500	25 min.	2.5 hours	90 (160)	3,400 (23)	4,300 (30)	400 (3)	48.5mL	00-638060-08985-9	7100148735
											200mL	00-021200-87844-2	7000121264
											400mL	00-021200-87845-9	7100076727
											5 gal. pail A	00-021200-87218-1	7100084588
											5 gal. pail B	00-021200-87217-4	7100084538
	DP125 125 (Translucent)	High performance; Very flexible bonds	1:1	15,000	25 min.	2.5 hours	85 (151)	4,000 (28)	2,500 (17)	150 (1)	48.5mL	00-638060-08983-5	7100148734
											400mL	00-021200-87843-5	7000121262
	DP190 (Translucent)	High performance; Flexible bonds	1:1	10,000	80 min.	6 hours	60 (107)	3,500 (24)	1,200 (8)	150 (1)	48.5mL	00-638060-08980-4	7100148752
											5 gal. pail A	00-638060-40468-3	7100218836
											5 gal. pail B	00-638060-40467-6	7100218835
*	**DP190** (Gray)	High performance; Slightly flexible bonds	1:1	80,000	90 min.	10 hours	50 (89)	1,500 (10)	2,500 (17)	400 (3)	48.5mL	00-638060-08992-7	7010410438
											200mL	00-021200-87840-4	7000121314
											400mL	00-021200-87841-1	7100076722
*	**2216 B/A** (Gray)	High performance; Very flexible bonds	2:3	80,000	90 min.	10 hours	50 (89)	3,000 (21)	3,200 (22)	400 (3)	41.5mL	00-068060-00115-3	7000262036
											2 oz. tube kit	00-021200-20351-0	7000000812
											Pint kit	00-021200-20354-1	7000046358
											Quart kit	00-021200-20356-5	7000000815
											Gallon kit	00-021200-20358-9	7000000816
											5 gal. pail A	00-021200-20365-7	7000046361
											5 gal. pail B	00-021200-20360-2	7000046360
											50 gal drum A	00-021200-20366-4	7100166318
											50 gal drum B	00-021200-20361-9	7100166319
	2216 B/A (Translucent)	General purpose; Very flexible bonds	1:1	10,000	2 hours	14 hours	70 (125)	3,000 (21)	1,700 (12)	140 (1)	2 oz. tube kit	00-021200-20851-5	7000046479
											Quart kit	00-021200-20854-6	7000000861
											Gallon kit	00-021200-20856-0	7000046480
											5 gal. pail A	00-021200-64981-3	7000046494
											5 gal. pail B	00-021200-64980-6	7000121307
	2216NS B/A (Tan)	High performance; Non-sag	2:3	350,000	2 hours	10 hours	50 (89)	2,000 (14)	2,500 (17)	400 (3)	5 gal. pail A	00-021200-87180-1	7010367414
											5 gal. pail B	00-021200-87179-5	7010309882

For lead times on bulk adhesives, please contact your 3M representative.

Key Product **Denotes product to consider first in this category.** * **After Key Products, consider these.**

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3M™ Scotch-Weld™ Structural Adhesives

3M™ Scotch-Weld™ Toughened Epoxies

	Product (Color)	Key Features	Mix Ratio (Volume) B:A	Approximate Viscosity at 75°F (24°C) (cP)	Approximate Mixed Work Life at 75°F (24°C)	Approximate Time to Handling Strength at 75°F (24°C)	Floating Roller Peel PLI (N/cm) at 75°F (24°C)	Overlap Shear: psi (MPa) -67°F (-55°C)	Overlap Shear: psi (MPa) 75°F (24°C)	Overlap Shear: psi (MPa) 180°F (82°C)	Size	UPC	Stock #
	DP405 **405** (Black)	Tough durable bonds; High impact resistance	2:1	70,000	4 min.	15 min.	40 (71)	4,500 (31)	4,500 (31)	600 (4)	50mL	00-638060-08971-2	7100148728
											5 gal. pail A	00-051111-07708-5	7010301041
											5 gal. pail B	00-051111-07707-8	7010329549
*	**DP420** **420** (Black)	Tough durable bonds; High impact resistance	2:1	30,000	20 min.	2 hours	75 (133)	4,500 (31)	4,500 (31)	1,250 (9)	50mL	00-638060-08966-8	7100148731
											200mL	00-021200-41530-2	7100007956
											400mL	00-021200-41529-6	7100077148
											Gallon Kit	00-051115-25796-4	7000046381
											5 gal. pail A	00-021200-41532-6	7000000834
											5 gal. pail B	00-021200-41531-9	7000000827
											43 gal. drum A	00-021200-41534-0	7010365967
											43 gal. drum B	00-021200-41533-3	7010309750
Key Product	**DP420** **420** (Off-White)	Tough durable bonds; High impact resistance	2:1	30,000	20 min.	2 hours	70 (125)	4,500 (31)	4,500 (31)	450 (3)	50mL	00-638060-08978-1	7100148736
											200mL	00-021200-87832-9	7100077136
											400mL	00-021200-87833-6	7100002516
											5 gal. pail A	00-021200-82239-1	7100001144
											5 gal. pail B	00-021200-82238-4	7100001145
*	**DP420NS** **420NS** (Black)	Tough durable bonds; Non-sag	2:1	180,000	20 min.	2 hours	60 (107)	4,500 (31)	4,500 (31)	1,250 (9)	50mL	00-638060-08987-3	7100148758
											200mL	00-021200-39286-3	7100036943
											400mL	00-021200-39287-0	7100010680
											5 gal. pail A	00-021200-31309-7	7000000857
											5 gal. pail B	00-021200-56587-8	7000000853
											50 gal. drum A	00-048011-58133-0	7100160352
											50 gal. drum B	00-048011-58132-3	7100160334
*	**DP460** **460** (Black)	Tough durable bonds	2:1	30,000	60 min.	4 hours	80 (142)	4,500 (31)	4,500 (31)	700 (5)	5 gal. pail A	00-021200-25319-5	7000121271
											5 gal. pail B	00-021200-25318-8	7000121265
*	**DP460** **460** (Off-White)	Tough durable bonds	2:1	30,000	60 min.	4 hours	80 (142)	4,500 (31)	4,500 (31)	700 (5)	50mL	00-638060-08998-9	7100148768
											200mL	00-021200-87830-5	7000121321
											400mL	00-021200-87831-2	7100082563
											Quart kit	00-021200-82226-1	7000000874
											5 gal. pail A	00-021200-82228-5	7000000876
											5 gal. pail B	00-021200-82227-8	7000000875
											53 gal. drum A	00-021200-83757-9	7010366165
											53 gal. drum B	0-00-76308-14623-8	7100153215
*	**DP460NS** **460NS** (Off-White)	Tough durable bonds; Non-sag	2:1	125,000	60 min.	4 hours	70 (125)	3,600 (25)	4,900 (34)	4,650 (32)	50mL	00-638060-08968-2	7100148751
											200mL	00-021200-43671-0	7100069441
											400mL	00-021200-43672-7	7100076677
											5 gal. pail A	00-021200-43674-1	7010329565
											5 gal. pail B	00-021200-43673-4	7010301036
	DP490 **490** (Black)	Tough durable bonds	2:1	90,000	90 min.	4 hours	34 (60)	3,600 (25)	4,500 (31)	2,000 (14)	400mL	04-054596-67913-9	7100200501
	7240FR (Black)	Tough durable bonds	2:1	120,000	45 min.	6 hours	15 (92)	3,400 (18)	4,500 (27)	900 (12)	400mL	04-064035-15229-1	710033127
											14 gal. Kit	54-046719-95284-2	7100042123
	LSB60 (Gray)	Tough durable bonds; High impact resistance	1:1	30,000	90 min.	5 hours	15 (27)	3,400 (23)	4,500 (31)	900 (6)	400mL	00-051115-63411-6	7000046487
											50 gal. drum A	00-051115-63418-5	7010366162
											50 gal. drum B	00-051115-63417-8	7010310202
	LSB60NS (Gray)	Tough durable bonds; Non-sag; High impact resistance	1:1	60,500	90 min.	5 hours	10 (18)	3,800 (26)	4,500 (31)	800 (6)	5 gal. pail A	00-051115-63428-4	7100079533
											5 gal. pail B	00-051115-63427-7	7100079534
											50 gal. drum A	06-38060-40269-6	7100198360
											50 gal. drum B	06-38060-40270-2	7100198390
	LSB360NS (Green)	Tough durable bonds; Non-sag; Extra long work life; Bonds oily metals	1:1	60,500	10 hours	16 hours	30 (53)	4,000 (28)	4,000 (28)	800 (6)	55 gal. drum A	00-051115-64360-6	7010330243
											55 gal. drum B	00-051115-64391-0	7010299359

For lead times on bulk adhesives, please contact your 3M representative.

Key Product **Denotes product to consider first in this category.** * **After Key Products, consider these.**

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3M™ Scotch-Weld™ Structural Adhesives

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3M™ Scotch-Weld™ Heat-Cured Epoxies

Product (Color)	Key Features	Approximate Viscosity at 75°F (24°C) (cP)	Cure Conditions: Time (min.)	Cure Conditions: Temp. F (C)	Floating Roller Peel PLI(N/cm) at 75°F(24°C)	Overlap Shear: psi (MPa): -67°F (-55°C)	Overlap Shear: psi (MPa): 75°F (24°C)	Overlap Shear: psi (MPa): 180°F (82°C)	Overlap Shear: psi (MPa): 250°F (121°C)	Size	UPC	Stock #
6101 (Off White)	Excellent impact resistance; Low temp cure	30,000	20	149 (65)	N/A	N/A	N/A	N/A	N/A	30mL cart.	00-638060-40406-5	7100208553
1386 (Cream)	High temperature strength; Impact resistance	150,000	60	350 (177)	10 (18)	3,000 (2 1)	5,500 (38)	4,500 (31)	2,500 (17)	1 quart	00-021200-19917-2	7000046326
1469 (Cream)	High temperature strength; Low viscosity	60,000	120	350 (177)	2 (4)	3,150 (22)	3,700 (26)	3,700 (26)	3,600 (25)	1 quart 5 gal. pail	00-021200-19949-3 00-021200-19950-9	7000046328 7100056050
2214 Hi-Temp New Formula (Gray)	High temperature strength; Environmental resistance	Paste	60	250 (121)	2 (4)	2,000 (14)	2,500 (17)	2,000 (14)	2,000 (14)	6 oz. cart. 5 gal. pail	00-021200-20833-1 00-021200-20835-5	7000046474 7010330200
2214 Non- Metallic Filled (Cream)	High temperature strength; Higher insulation value	Paste	40	250 (121)	7 (12)	3,000 (2 1)	2,200 (15)	2,000 (14)	400 (3)	6 oz. cart.	00-021200-25496-3	7000121273
* **2214 Regular** (Gray)	High temperature strength; Low temp curing	Paste	40	250 (121)	5 (9)	3,000 (2 1)	2,500 (17)	2,000 (14)	800 (6)	6 oz. cart. 1 quart 5 gal. pail	00-021200-20344-2 00-021200-20345-9 00-021200-23047-3	7000000811 7000046356 7100111206
2290 (Amber)	Low solids liquid coating for metal laminations	60	30–60	350 (177)	5 (9)	5,000 (34)	5,000 (34)	3,500 (24)	1,200 (8)	Gallon cont. 5 gal. pail 54 gal. drum	00-021200-76225-3 00-021200-76227-7 00-021200-76228-4	7000000897 7100144895 7100144896

3M™ Scotch-Weld™ Primer

Product	Key Features	Viscosity	Color	Dry time (24°C-33°C)	Dry time (88°C)	Size	UPC	Stock #
Metal Primer 3901	Improves metal and glass adhesion and increases environmental resistance	5	Red	1 hour	30 min.	.5 pint	62390135259	7000000907

3M™ Scotch-Weld™ Epoxy Adhesive DP420NS

3M Scotch-Weld Epoxy Adhesive DP420NS is a black, toughened, non-sag, two-part epoxy structural adhesive that provides good strength along with high impact and fatigue resistance. It can replace mechanical fasteners, screws, rivets and spot welds in many applications.



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3M™ Scotch-Weld™ Epoxy Adhesive DP100 Clear

3M Scotch-Weld Epoxy Adhesive DP100 Clear is a very flexible, fast-setting, two-part epoxy adhesive that cures clear and colorless. It provides a strong, permanent bond, even under vibration and impact and is flexible when cured, making it a good choice for bonding dissimilar surfaces.


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For lead times on bulk adhesives, please contact your 3M representative.

Key Product **Denotes product to consider first in this category.** * **After Key Products, consider these.**

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3M™ Scotch-Weld™ Structural Adhesives

3M™ Scotch-Weld™ Standard MMA Acrylics and Low Odor Acrylics

Product (Color)	Key Features	Mix Ratio (Volume) B:A	Approximate Viscosity at 75°F (24°C) (cP)	Approximate Mixed Work Life at 75°F (24°C)	Approximate Time to Handling Strength at 75°F (24°C)	Floating Roller Peel PLI (N/cm) at 75°F (24°C)	Overlap Shear: psi (MPa) -20°F (-29°C)	Overlap Shear: psi (MPa) 75°F (24°C)	Overlap Shear: psi (MPa) 180°F (82°C)	Size	UPC	Stock #
Standard MMA Acrylics												
DP805 (Off-White)	Fast strength build; Minimal surface prep	1:1	110,000	3 min.	10 min.	35 (62)	2,500 (17)	3,500 (24)	2,200 (15)	48.5mL	00-638060-08982-8	7010410436
										200mL	00-021200-87828-2	7010367390
DP820 (Light Yellow)	Tough durable bonds; Minimal surface prep	1:1	55,000	15 min.	40 min.	20 (36)	3,100 (21)	3,150 (22)	1,900 (13)	48.5mL	00-638060-08977-4	7010412194
										200mL	00-021200-89348-3	7010329704
DP8405NS 8405NS (Green)	High impact; Adhesion to most plastics	10:1	70,000	5 min.	15 min.	50 (89)	2,600 (18)	4,100 (28)	900 (6)	45mL	00-051115-68963-5	7100009688
										490mL	00-051115-68964-2	7100011056
										1 gal. pail A	00-051115-68981-9	7100102180
										5 gal. pail B	00-051115-68986-4	7100027430
										5 gal. pail A	00-051115 -68980-2	7100101506
										50 gal. drum B	00-051115-68987-1	7100084534
Key Product **DP8407NS 8407NS** (Gray)	High impact; Adhesion to most plastics	10:1	20,000	7 min.	24 min.	50 (89)	3,400 (23)	4,500 (31)	1,400 (10)	45mL	00-638060-14631-6	7100179482
										490mL	00-638060-14643-9	7100179480
										1 gal. pail A	00-638060-14658-3	7100179264
										5 gal. pail B	00-076308-86306-7	7100105384
										5 gal. pail A	00-638061-14659-0	7100179442
Key Product **DP8410NS 8410NS** (Green)	High impact; Adhesion to most plastics	10:1	70,000	10 min.	25 min.	50 (89)	3,600 (25)	4,100 (28)	800 (6)	45mL	00-051115-70994-4	7100024055
										490mL	00-051115-70995-1	7100024045
										1 gal. pail A	00-051115-68981-9	7100102180
										5 gal. pail B	00-051115-70997-5	7100064830
										5 gal. pail A	00-051115-68980-	7100101506
										50 gal. drum B	00-051115-71101-5	7100084532
DP8425NS 8425NS (Green)	High impact; Adhesion to most plastics	10:1	70,000	25 min.	50 min.	50 (89)	3,800 (26)	3,700 (26)	800 (6)	45mL	00-051115-81303-0	7100078165
										490mL	00-051115-81302-3	7100078166
										1 gal. pail A	00-051115-68981-9	7100102180
										5 gal. pail B	00-68060-00072-9	7100255721
										5 gal. pail A	00-0511115-81414-3	7100101506
										50 gal. drum B	00-051115-81031-6	7100084535
Low Odor Acrylics												
DP8705NS 8705NS (Black)	Low odor; Fast rate of strength build	10:1	80,000	5 min.	6 min.	34 (60)	4,350 (30) at -40°C	2,320 (16)	580 (4)	45mL	00-638060-40963-3	7100245036
										490mL	00-638060-40964-0	7100245039
										1 gal. pail A	00-638060-40862-9	7100233358
										5 gal. pail A	00-638060-40863-6	7100234571
										5 gal. drum B	00-638060-40965-7	7100245037
										50 gal. drum B	00-638060-40966-4	7100245038
Key Product **DP8710NS 8710NS** (Black)	Low odor; Fast rate of strength build	10:1	80,000	10 min.	13 min.	34 (60)	4,350 (30) at -40°C	2,320 (16)	580 (4)	45mL	00-638060-40865-0	7100233349
										490mL	00-638060-40866-7	7100233348
										1 gal. pail A	00-638060-40862-9	7100233358
										5 gal. pail A	00-638060-40863-6	7100234571
										5 gal. drum B	00-638060-40867-4	7100234572
										50 gal. drum B	00-638060-40868-1	7100233166
DP8725NS 8725NS (Black)	Low odor; Fast rate of strength build	10:1	80,000	23 min.	25 min.	34 (60)	4,350 (30) at -40°C	2,320 (16)	580 (4)	45mL	00-638060-40967-1	7100244858
										490mL	00-638060-40968-8	7100244480
										1 gal. pail A	00-638060-40862-9	7100233358
										5 gal. pail A	00-638060-40863-6	7100234571
										5 gal. drum B	00-638060-40969-5	7100244861
										50 gal. drum B	00-638060-40971-8	7100244862
DP810 810 (Black)	Tough durable bonds; High impact resistance	1:1	20,000	10 min.	20 min.	30 (53)	1,200 (8)	3,600 (25)	500 (3)	48.5mL	00-638060-08967-5	7100148732
										200mL	00-021200-49079-8	7100142848
										1 gallon pail A	00-048011-56712-9	7000046401
										1 gallon pail B	00-048011-56711-2	7000046385
										4.4 gal. pail A	00-021200-49081-1	7010365969
										4.4 gal. pail B	00-021200-49080-4	7010329544
DP810 810 (Tan)	Tough durable bonds; High impact resistance	1:1	20,000	10 min.	20 min.	30 (53)	1,200 (8)	3,600 (25)	500 (3)	48.5mL	00-638060-08986-6	7100148757
										200mL	00-021200-31311-0	7000121267
										400mL	00-021200-31312-7	7000121266
										4.4 gal. pail A	00-021200-45233-8	7100077450
										4.4 gal. pail B	00-021200-45230-7	7100077451
DP810NS 810NS (Tan)	Tough durable bonds; Non-sag	1:1	95,000	10 min.	20 min.	20 (36)	1,200 (8)	4,000 (28)	500 (3)	48.5mL	00-638060-08969-9	7100148748
										200mL	00-021200-49084-2	7100069365
										400mL	00-021200-49083-5	7100069366
										4.4 gal. pail A	00-638060-14110-6	7100160337
										4.4 gal. pail B	00-021200-49085-9	7000121240

3M™ Scotch-Weld™ Structural Adhesives



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3M™ Scotch-Weld™ Low Odor Acrylics *(cont.)*

Product (Color)	Key Features	Mix Ratio (Volume) B:A	Approximate Viscosity at 75°F (24°C) (cP)	Approximate Mixed Work Life at 75°F (24°C)	Approximate Time to Handling Strength at 75°F (24°C)	Floating Roller Peel PLI (N/cm) at 75°F (24°C)	Overlap Shear: psi (MPa) -20°F (-29°C)	Overlap Shear: psi (MPa) 75°F (24°C)	Overlap Shear: psi (MPa) 180°F (82°C)	Size	UPC	Stock #
DP8805NS 8805NS (Green)	Low odor; Fast rate of strength build	10:1	80,000	5 min.	7 min.	30 (53)	800 (5)	3,600 (25)	900 (6)	45mL	00-076308-98433-5	7100098631
										490mL	00-076308-98439-7	7100097636
										1 gal. pail A	00-051115-81415-0	7100102180
										5 gal. pail B	00-076308-98440-3	7100097693
										5 gal. pail A	00-051115-81414-3	7100101506
										50 gal. drum B	00-076308-98441-0	7100097673
DP8810NS 8810NS (Green)	Low odor; Fast rate of strength build	10:1	80,000	10 min.	18 min.	30 (53)	900 (6)	3,600 (25)	800 (6)	45mL	00-051128-99432-0	7100097574
										490mL	00-051128-99431-3	7100075409
										1 gal. pail A	00-051115-81415-0	7100102180
										5 gal. pail B	00-076308-98442-7	7100097704
										5 gal. pail A	00-051115-81414-3	7100101506
										50 gal. drum B	00-076308-98443-4	7100097626
DP8810NS (Gray)	Low odor; Fast rate of strength build	10:1	80,000	10 min.	18 min.	30 (53)	900 (6)	3,600 (25)	800 (6)	45mL	00-076308-86152-0	7100097474
										490mL	00-076308-98485-4	7010329557
DP8825NS 8825NS (Green)	Low odor; Fast rate of strength build	10:1	80,000	25 min.	44 min.	20 (36)	1,000 (7)	3,000 (21)	800 (6)	45mL	00-051115-81288-0	7100067297
										490mL	00-051115-81289-7	7100068120
										1 gal. pail A	00-051115-81415-0	7100102180
										5 gal. pail B	00-051115-81290-3	7100067291
										5 gal. pail A	00-051115-81414-3	7100101506
										50 gal. drum B	00-051115-81291-0	7100084533

3M™ Scotch-Weld™ Low Surface Energy and Nylon Bonder Acrylics

Product (Color)	Key Features	Mix Ratio (Volume) B:A	Approximate Viscosity at 75°F (24°C) (cP)	Approximate Mixed Work Life at 75°F (24°C)	Approximate Time to Handling Strength at 75°F (24°C)	Floating Roller Peel PLI (N/cm) at 75°F (24°C)	Overlap Shear: psi (MPa) -20°F (-29°C)	Overlap Shear: psi (MPa) 75°F (24°C)	Overlap Shear: psi (MPa) 150°F (66°C)	Size	UPC	Stock #
DP8005 (Black)	Bonds polyolefins and low surface energy materials	10:1	25,000	3 min.	3 hours	N/A	875 (6)	2,000 (14)	475 (3)	45mL	00-051128-99352-1	7100089475
										490mL	00-051128-99298-2	7100089476
DP8005 (Off-White)	Bonds polyolefins and low surface energy materials	10:1	25,000	3 min.	3 hours	N/A	750 (5)	2,200 (15)	500 (3)	45mL	00-051128-99349-1	7100088846
										490mL	00-051128-99297-5	7100090196
Key Product **DP8010 8010** (Blue)	Bonds polyolefins and low surface energy materials	10:1	20,000	10 min.	1 hour	N/A	2,700 (19)	2,700 (19)	500 (3)	45mL	00-051115-71600-3	7100036717
										490mL	00-051115-71601-0	7100036719
										1 gal. pail A	00-021200-49113-9	7100050479
										5 gal. pail B	00-051115-71669-0	7100036720
										5 gal. pail A	00-021200-49115-3	7000046400
DP8910NS 8910NS (Black)	Bonds nylon and metal	10:1	45,000	10 min.	16 min.	10 (18)	2,175 (15)	3,190 (22)	1,595 (11)	45mL	00-068060-00546-5	7100314796
										490mL	00-068060-00547-2	7100314358
										1 gal. pail A	00-638060-40862-9	7100233358
										5 gal. pail A	00-638060-40863-6	7100234571
										5 gal. drum B	00-068060-00548-9	7100314557
										50 gal. drum B	00-068060-00549-6	7100314788

3M™ Scotch-Weld™ Flexible Acrylics

Product (Color)	Key Features	Mix Ratio (Volume) B:A	Approximate Viscosity at 75°F (24°C) (cP)	Approximate Mixed Work Life at 75°F (24°C)	Approximate Time to Handling Strength at 75°F (24°C)	Floating Roller Peel PLI (N/cm) at 75°F (24°C)	Overlap Shear: psi (MPa) -40°F (-40°C)	Overlap Shear: psi (MPa) 75°F (24°C)	Overlap Shear: psi (MPa) 180°F (82°C)	Size	UPC	Stock #
DP8610NS 8610NS (Black)	Very flexible and no read through on thin metals	10:1	130,000	10 min.	18 min.	57 (100)	3,480 (24)	1,015 (7)	290 (2)	45mL	00-638060-40836-0	7100233359
										490mL	00-638060-40862-9	7100232802
										1 gal. pail A	00-638060-40862-9	7100233358
										5 gal. pail A	00-638060-40863-6	7100234571
										5 gal. drum B	00-638060-40838-4	7100234673
										50 gal. drum B	00-638060-40839-1	7100234570
DP8625NS 8625NS (Black)	Very flexible and no read through on thin metals	10:1	130,000	23 min.	28 min.	57 (100)	3,480 (24)	1,015 (7)	290 (2)	45mL	00-638060-40972-5	7100244478
										490mL	00-638060-40973-2	7100244477
										1 gal. pail A	00-638060-40862-9	7100233358
										5 gal. pail A	00-638060-40863-6	7100234571
										5 gal. drum B	00-638060-40974-9	7100244476
										50 gal. drum B	00-638060-40975-6	7100244859
DP8625NS 8625NS (Grey)	Very flexible and no read through on thin metals	10:1	130,000	23 min.	28 min.	57 (100)	3,480 (24)	1,015 (7)	290 (2)	490mL	00-068060-00399-7	7100292352
										5 gal. pail A	00-638060-40863-6	7100234571
										50 gal. drum B	00-068060-75678-7	7100320287

3M™ Scotch-Weld™ Structural Adhesives

3M™ Scotch-Weld™ Semi-Rigid Urethanes

	Product (Color)	Key Features	Mix Ratio (Volume) B:A	Approximate Viscosity at 75°F (24°C) (cP)	Approximate Mixed Work Life at 75°F (24°C)	Approximate Time to Handling Strength at 75°F (24°C)	Floating Roller Peel PLI (N/cm) at 75°F (24°C)	Overlap Shear: psi (MPa) -40°F (-40°C)	Overlap Shear: psi (MPa) 75°F (24°C)	Overlap Shear: psi (MPa) 180°F (82°C)	Size	UPC	Stock #
	DP600 **600** (Gray)	Concrete repair; Self-leveling	1:1	6,000	1 min.	4 min.	20 (36)	3,200 (22)	2,300 (16)	700 (5)	48.5mL	00-638060-08962-0	7100148740
											8.4 fl. oz.	00-021200-96596-8	7000046375
											5 gal. pail A	00-021200-96575-3	7010130543
											5 gal. pail B	00-021200-96574-6	7010170293
	DP600NS **600NS** (Gray)	Concrete repair; Non-sag	1:1	Paste	1 min.	4 min.	8 (14)	2,700 (19)	2,300 (16)	700 (5)	48.5mL	00-638060-08964-4	7100148747
											5 gal. pail A	00-068060-00005-7	7100249024
											5 gal. pail B	00-068060-00004-0	7100249169
	DP605NS **605NS** (Off-White)	Semi-rigid Non-sag	1:1	150,000	5 min.	20 min.	40 (71)	4,000 (28)	2,000 (14)	600 (4)	48.5mL	00-638060-08997-2	7100148767
	DP6301NS (Green)	Delivers strength and performance	1:1	Non-sag paste	1 min.	3 min.	36 (64)	2,018 (14)	1,653 (11)	224 (1)	400mL	00-068060-00068-2	7100255381
											50 gal. drum A	00-068060-00070-5	7100255361
											50 gal. drum B	00-068060-00069-9	7100255362
Key Product	**DP6310NS** (Green)	Multi-purpose; Energy absorbing	1:1	Non-sag paste	10 min.	45 min.	20 (36)	3,500 (24)	3,600 (25)	900 (6)	48.5mL	00-076308-86407-1	7100109829
											400mL	00-076308-86398-2	7100109830
											5 gal. pail A	00-076308-86782-9	7100143960
											5 gal. pail B	00-076308-86748-5	7100143915
											50 gal. drum A	00-076308-86783-6	7010415316
											50 gal. drum B	00-076308-86749-2	7010412199
	DP6330NS (Green)	Multi-purpose; Energy absorbing	1:1	Non-sag paste	30 min.	2 hours	20 (36)	3,600 (25)	3,600 (25)	1,000 (7)	48.5mL	00-076308-86431-6	7100109828
											400mL	00-076308-86433-0	7100109827
											5 gal. pail A	00-076308-86780-5	7100143961
											5 gal. pail B	00-076308-86701-0	7100143701
											50 gal. drum A	00-076308-86781-2	7010409611
											50 gal. drum B	00-076308-86727-0	7010366145

3M™ Scotch-Weld™ Flexible Urethanes

	Product (Color)	Key Features	Mix Ratio (Volume) B:A	Approximate Viscosity at 75°F (24°C) (cP)	Approximate Mixed Work Life at 75°F (24°C)	Approximate Time to Handling Strength at 75°F (24°C)	Floating Roller Peel PLI (N/cm) at 75°F (24°C)	Overlap Shear: psi (MPa) -40°F (-40°C)	Overlap Shear: psi (MPa) 75°F (24°C)	Overlap Shear: psi (MPa) 180°F (82°C)	Size	UPC	Stock #
*	**DP604NS** **604NS** (Black)	Flexible; Non-sag	1:1	Paste	4 min.	20 min.	30 (53)	1,400 (10)	600 (4)	300 (2)	48.5mL	00-638060-08961-3	7100148738
											400mL	00-051111-98301-0	7100069452
											5 gal. pail A	00-021200-96462-6	7010365926
											5 gal. pail B	00-021200-96461-9	7010367265
											50 gal. drum A	00-076308-14205-6	7010329538
											50 gal. drum B	00-076308-87087-4	7010412243
*	**DP620NS** **620NS** (Black)	Semi-flexible; Non-sag	1:1	Paste	20 min.	4 hours	40 (71)	3,000 (21)	2,500 (17)	500 (3)	48.5mL	00-638060-08960-6	7100148737
											400mL	00-048011-57287-1	7000046372
											5 gal. pail A	00-076308-14144-8	7101329537
											5 gal. pail B	00-076308-14135-6	7010367262
											50 gal. drum A	00-076308-14135-5	7010301034
											50 gal. drum B	00-076308-14146-3	7010309744
	DP640 (Brown)	Tough flexible bonds	1:1	25,000	60 min.	8 hours	60 (107)	3,000 (21)	2,000 (14)	400 (3)	48.5mL	00-638060-08991-0	7100148761
	3549 (Brown)	Tough flexible bonds	1:1	25,000	60 min.	8 hours	60 (107)	3,000 (21)	2,000 (14)	400 (3)	Quart kit	00-021200-20802-4	7000046485
	DP5001 **5001** (Black)	Flexible; Conveyor belt repair	1:1	100,000	1 min.	15 min.	N/A	N/A	600 (4)	N/A	400mL	00-051111-98296-9	7100028818

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3M™ Scotch-Weld™ PUR Adhesives



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3M™ Scotch-Weld™ PUR Adhesives — Wood Bonders

	Product (Color)	Key Features	Viscosity at 250°F (121°C) (cP)	Approximate Open Time at 75°F (24°C)	Approximate Time to Handling Strength at 75°F (24°C)	Shore D	Elongation %	Size	UPC	Stock #
	EZ250015 (Off-White)	Fast set time; UV tracer	7,000	1.5 min.	15 seconds	65	750	1/10 gal. 5 gal.	00-051115-23545-0 00-051115-23546-7	7000046529 7010310232
	EZ250060 (Off-White)	Medium set time; UV tracer	7,000	2 min.	60 seconds	60	675	1/10 gal. 5 gal.	00-051115-23550-4 00-051115-23551-1	7000046531 7010329734
	EZ250120 (Off-White)	Medium set time; Low viscosity; UV tracer	3,000	4 min.	120 seconds	60	625	1/10 gal.	00-051115-23554-2	7000046532
	TE030 (Off-White)	Fast set time; High viscosity; No UV tracer	16,000	1 min.	30 seconds	60	725	1/10 gal. 5 gal.	00-051115-25157-3 00-021200-82484-5	7000046536 7010310236
*	**TE100** (Off-White)	Medium set time; UV tracer	7,000	2 min.	60 seconds	61	675	1/10 gal. 5 gal.	00-051115-25161-0 00-021200-87244-0	7000028590 7010295326
	TE200 (Off-White)	Medium set time; Low viscosity; UV tracer	3,000	4 min.	120 seconds	60	625	1/10 gal. 2 kilo	00-051115-25164-1 00-048011-53272-1	7000000905 7000046540

3M™ Scotch-Weld™ PUR Adhesives — Plastic Bonders

	Product (Color)	Key Features	Viscosity at 250°F (121°C) (cP)	Approximate Open Time at 75°F/24°C	Approximate Time to Handling Strength at 75°F/24°C	Shore D	Elongation %	Size	UPC	Stock #
	EZ250030 (Off-White)	Fast set time, bonds a wide variety of plastics; No UV tracer	13,000	2 min.	30 seconds	50	725	1/10 gal. 5 gal.	00-051115-23541-2 00-051115-23542-9	7000046530 7000121357
	EZ250150 (Off-White)	Long open time; Bonds plastics to metal, glass, wood; No UV tracer	9,000	4 min.	150 seconds	45	700	1/10 gal. 2 kilo 5 gal.	00-051115-23559-7 00-051115-23562-7 00-051115-23560-3	7000046533 7010295325 7010367590
	EZ250200 (Off-White)	Long open time; Low viscosity; Bonds plastics, wood, and many other material combinations; No UV tracer	2,750	3 min.	120 seconds	30	400	1/10 gal. 2 kilo	00-048011-57402-8 00-048011-57401-1	7000046538 7010367604
	TE031 (Black)	Fast set time; Bonds a wide variety of plastics; no UV tracer	13,000	2 min.	30 seconds	50	725	1/10 gal. 5 gal.	00-051115-25159-7 00-021200-89573-9	7000000903 7100031123
*	**TE031** (Off-White)	Fast set time; Bonds a wide variety of plastics; No UV tracer	13,000	2 min.	30 seconds	50	725	1/10 gal. 2 kilo	00-051115-25158-0 00-048011-53355-1	7000000902 7000028589
	TE040 (Black)	Fast set time; Strong flexible; bonds to plastic, wood, aluminum, glass; No UV tracer	7,000	2 min.	40 seconds	35	860	1/10 gal. 5 gal. 55 gal. drum	00-051115-64536-5 00-638060-14494-7 00-638060-14321-6	7100003450 7100172685 7100160468
	TE040 (Off-White)	Fast set time; Strong flexible bonds to plastic, wood, aluminum, glass; No UV tracer	7,000	2 min.	41 seconds	35	860	1/10 gal. 5 gal. 55 gal. drum	00-051115-25160-3 00-021200-25343-0 00-638060-14498-5	7000021292 7000136628 7100170133
	TS230 (Black)	Extrudable/sprayable; Long open time; Bonds plastics to metal, glass, and wood; No UV tracer	9,000	4 min.	150 seconds	45	700	1/10 gal. 2 kilo 5 gal. 55 gal. drum	00-051115-25166-5 00-048011-53273-8 00-021200-89583-8 00-638060-14675-0	7000000906 7000046541 7000121361 7100179521
Key Product	**TS230** (Off-White)	Extrudable/sprayable long open time; Bonds plastics to metal, glass, and wood; No UV tracer	9,000	4 min.	150 seconds	45	700	1/10 gal. 2 kilo 5 gal. 55 gal. drum	00-051115-25165-8 00-048011-53271-4 00-021200-83640-4 00-021200-83639-8	7000000898 7000046534 7100024959 7100104259
	TS230 (Gray)	Extrudable/sprayable long open time; Bonds plastics to metal, glass, and wood; No UV tracer	9,000	4 min.	150 seconds	45	700	55 gal. drum	00-638060-40191-0	7100191940
	Purge Material 3756	Purge PUR adhesives from bulk dispensing equipment	8,250	N/A	N/A	N/A	N/A	5 gal.	00-021200-56522-9	7000121333

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3M™ Scotch-Weld™ PUR Adhesives

3M™ Scotch-Weld™ PUR Applicator/Preheater/Hardware

Product	Description	UPC	Stock #
Applicator	PUR Easy 250 Applicator, pneumatically dispenses 1/10 gal. cartridges, US 120V	00-051115-23563-4	7000000958
Preheater	PUR Easy 250 Preheater, preheats up to four 1/10 gal. cartridges, 120V, Dual Temp	00-051115-23564-1	7000121608
System Accessories for hands-free dispensing	Applicator Bench Mount Bracket Assembly (bracket only)	00-021200-30086-8	7000121614
	Hot Melt Applicator Foot Pedal Assembly 9277	00-021200-82278-0	7000121596
Cartridge Nozzle	High Temperature Nozzles for PUR 1/10 gal. cartridges (Sample, 5/bag)	50-638060-40564-7	7100218849
Repair Kits and Replacement Parts	Adhesive Applicator Housing/Shroud Assembly Kit	00-051115-25783-4	7000028623
	Applicator Nozzle Shroud	00-048011-58320-4	7000148288
	Benchmount Quick Exhaust Assembly Replacement Kit	00-021200-31357-8	7010366711
	Applicator Air Coupler Filter Kit	00-021200-89475-6	7000046665
	Applicator Air Supply Line Kit	00-021200-89479-4	7000046668
	Applicator Air Valve Kit	00-048011-57410-3	7000046652
	Applicator Swivel Connector	00-048011-58298-6	7000046653
	Applicator End Cap	00-021200-89476-3	7000046666
	Applicator Heat Tube Assembly (120V) Kit	00-021200-89486-2	7010329969
	Applicator Heat Tube (240V)	00-021200-25303-4	7000046673
	Applicator On/Off Switch Kit	00-021200-89482-4	7100079509
	Applicator Power Cord Kit (120V)	00-021200-89481-7	7010366708
	Applicator Wire Stand	00-021200-89483-1	7010329970
	High Temperature (250 Degrees F) PUR Preheater Thermostat/TCO Kit	00-051115-23619-8	7010329954
	Low Temperature (170 Degrees F) PUR Preheater Thermostat/TCO Kit	00-051115-23618-1	7010366686
Alternate Nozzle System (not for use with disposable nozzles)	Applicator Main Nozzle Assembly (includes nozzle, tip, tip cap and valve)	00-021200-89514-2	7000027561
	Applicator Main Nozzle	00-021200-89515-9	7000046672
	Applicator Extension Tip, .072 in. orifice	00-021200-89471-8	7000046669
	Applicator Tip, .125 in. orifice	00-021200-89473-2	7000046671
	Applicator Tip, .063 in. orifice	00-021200-89472-5	7000046670
	Applicator Tip Cap	00-021200-87194-8	7100005819
	Applicator Valve Assembly	00-021200-83730-2	7000046650

3M™ Scotch-Weld™ PUR Easy 250 Applicator



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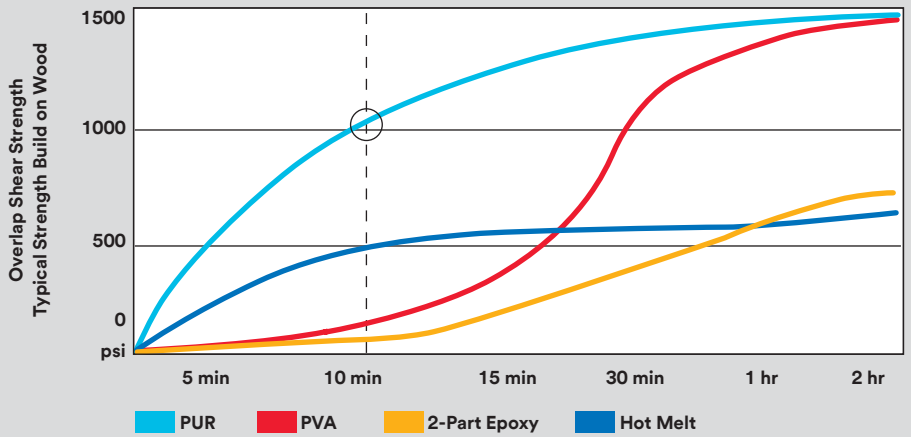
3M™ Scotch-Weld™ PUR Easy 250 Preheater



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3M™ Scotch-Weld™ PUR Adhesives

PUR Adhesives enhance productivity with fast green strength. Shorter clamp times and reduced need for third-hand mechanical fasteners help speed up your production process without sacrificing ultimate strength.



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3M™ Scotch-Weld™ Instant Adhesives

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3M™ Scotch-Weld™ Instant Adhesives — Plastic and Rubber, Surface Insensive and Low Odor

Product (Color)	Key Features	Typical Viscosity (cP)	Temperature Range	Time to Handling	Full Cure (Hours)	Size	UPC	Stock #
Plastic and Rubber								
PR Gel (Clear)	Fast cure, gel viscosity for max gap filling	Gel	-65° to 180°F (-54° to 82°C)	< 25 sec.	24	20 gram tube 300 gram cart	00-051115-25265-5 00-051115-25282-2	7100039255 7100039257
PR40 (Clear)	Low viscosity for close fitting plastic/rubber parts	40	-65° to 180°F (-54° to 82°C)	< 20 sec.	24	20 gram bottle	00-051115-25204-4	7010330469
Key Product **PR100** (Clear)	General purpose, low viscosity plastic bonder	100	-65° to 180°F (-54° to 82°C)	< 35 sec.	24	20 gram bottle 500 gram bottle	00-051115-25214-3 00-051115-25213-6	7100039259 7100039200
PR600 (Clear)	Medium viscosity with some gap filling for plastic/rubbers	600	-65° to 180°F (-54° to 82°C)	< 45 sec.	24	50 gram bottle 500 gram bottle	00-051115-25241-9 00-051115-25240-2	7100039244 7100039246
PR1500 (Clear)	General purpose, high viscosity for gap filling	1,500	-65° to 180°F (-54° to 82°C)	< 45 sec.	24	20 gram bottle 500 gram bottle	00-051115-25222-8 00-051115-25221-1	7100039201 7100039203
Surface Insensive								
SI Gel (Clear)	Fast cure, gel viscosity for maximum gap filling	Gel	-65° to 180°F (-54° to 82°C)	< 30 sec.	24	20 gram bottle 300 gram cart.	00-051115-25266-2 00-051115-25284-6	7100039258 7101330472
SI1500 (Clear)	High viscosity for gap filling	1,500	-65° to 180°F (-54° to 82°C)	< 30 sec.	24	50 gram bottle 500 gram bottle	00-048011-61662-9 00-051115-25245-7	7010330477 7100039243
Low Odor								
LO1000 (Clear)	General purpose, high viscosity with reduced odor and blooming, suitable for minor gap filling	1,000	-65° to 180°F (-54° to 82°C)	< 30 sec.	24	20 gram bottle	00-051111-91664-3	7100039269

3M™ Scotch-Weld™ Low Odor and MMA Acrylic Adhesives

3M's Low Odor and MMA Acrylic Adhesives are designed for all of your sign application needs. They provide excellent impact strength, high peel strength and greatly extended shelf life compared to ordinary structural adhesives. With high structural strength, fast cure and environmental resistance, they are the first choice for the sign industry.



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3M™ Scotch-Weld™ Instant Adhesives



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3M™ Scotch-Weld™ Instant Adhesives — Super Fast, Rubber Toughened and Engineered Grade

	Product (Color)	Key Features	Typical Viscosity (cP)	Temperature Range	Time to Handling	Full Cure (Hours)	Size	UPC	Stock #
Super Fast									
	SF20 (Clear)	Fast cure; Optimum performance on wide range of rubbers and plastics	20	-65° to 180°F (-54° to 82°C)	< 10 sec.	24	20 gram bottle	00-051111-91667-4	7100049744
	SF100 (Clear)	Fast cure; High strength with EPDM and other elastomers	100	-65° to 180°F (-54° to 82°C)	< 10 sec.	24	3 gram tube 20 gram bottle 500 gram bottle	00-048011-62630-7 00-048011-62631-4 00-048011-62629-1	7100039207 7100039206 7100039208
Rubber Toughened									
	RT5000B (Black)	Rubber toughened for impact resistance; High viscosity for minor gap filling	5,000	-65° to 180°F (-54° to 82°C)	< 40 sec.	24	20 gram bottle 500 gram bottle	00-051111-91665-0 00-051115-25200-6	7100039251 7100039252
Engineered Grade									
	CA4	Fast setting for a variety of plastics and rubbers	150	-65° to 180°F (-54° to 82°C)	5–40 sec.	24	2 gram tube 1 oz. bottle 1 lb. bottle	00-021200-96601-9 00-021200-96600-2 00-021200-96597-5	7010366320 7000028586 7000028587
	CA5	Higher viscosity, slower setting version of CA4 for filling gaps; Meets CID A-A-3097, Type II, Class 3	2,000	-65° to 180°F (-54° to 82°C)	12–60 sec.	24	1 oz. bottle 1 lb. bottle	00-021200-74289-7 00-021200-74288-0	7000046524 7010367474
	CA8	Rapid setting; Excellent adhesion to metals, plastics and rubbers; Meets CID A-A-3097, Type II, Class 2	70-130	-65° to 180°F (-54° to 82°C)	5–40 sec.	24	2 gram tube 1 oz. bottle 1 lb. bottle	00-021200-21065-5 00-021200-21066-2 00-021200-21067-9	7000121354 7000046526 7000046527
*	**CA40**	Very fast setting; Excellent adhesion to many substrates including flexible vinyl and EPDM rubber	20	-65° to 180°F (-54° to 82°C)	3–20 sec.	24	1 oz. bottle 1 lb. bottle	00-021200-74290-3 00-021200-74291-0	7000000893 7000000894
	CA40H	Higher viscosity version of CA40; Better void filling capabilities	400–600	-65° to 212°F (-54° to 100°C)	5–40 sec.	24	1 oz. bottle 1 lb. bottle	00-021200-21073-0 00-021200-21074-7	7000000895 7000000896
	CA50 Gel	High-viscosity, non-sag gel; Less sensitive to acidic surfaces	20,000–50,000	-65° to 212°F (-54° to 100°C)	60–120 sec.	24	20 gram tube	00-021200-82332-9	7100002517
	CA100	High peel and impact strength; High thermal shock and heat resistance	2,500–4,500	-65° to 212°F (-54° to 100°C)	20–70 sec.	24	1 oz. bottle 1 lb. bottle	00-021200-82334-3 00-021200-82335-0	7000000900 7000000901

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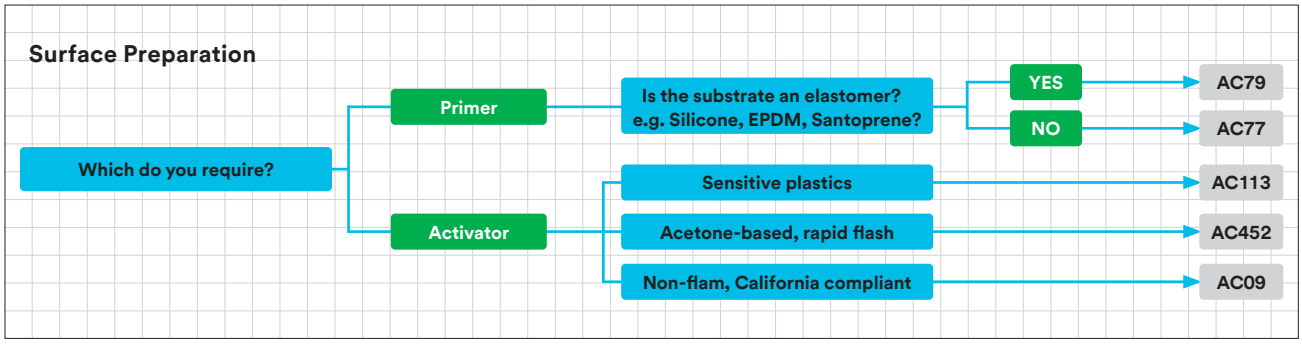
3M™ Scotch-Weld™ Anaerobic Adhesives

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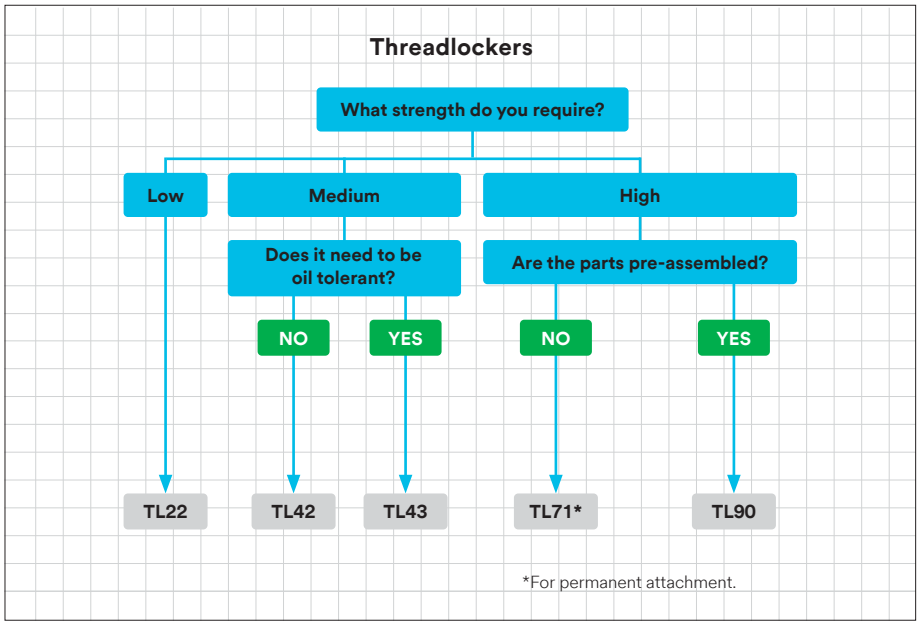
3M™ Scotch-Weld™ Instant Adhesive Primers and Activators

Product (Color)	Key Features	Typical Viscosity (cP)	Time to Handling	Full Cure (Hours)	Size	UPC	Stock #
AC77	Instant adhesive primer for bonding of difficult-to-bond plastics such as polyethylene, polypropylene and polyacetal	<3	1–5 sec.	24	2 fl. oz. bottle 1 gallon can	00-048011-62728-1 00-638060-40067-8	7100039260 7100190206
AC79	Instant adhesive primer for bonding of difficult-to-bond elastomers such as silicone, fluoroelastomer and EPDM VOC compliant	2	1–5 sec.	24	2 fl. oz. bottle 8 fl. oz. bottle 4 liter can	00-051115-31388-2 00-051115-31389-9 00-051115-31390-5	7100039262 7100039264 7100039265
AC113	Instant adhesive general purpose accelerator; Will not attack plastics	<3	1–5 sec.	24	8 fl. oz. bottle	00-048011-62682-6	7100079891
Surface Activator	Clear, colorless organic-based liquid helps speed curing and prime surfaces; Comes with brush and spray pump	<10	1–5 sec.	24	2 fl. oz. bottle	00-021200-87937-1	7000046525

Surface Preparation Selection Guide



Threadlocker Selection Guide



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3M™ Scotch-Weld™ Anaerobic Adhesives

3M™ Scotch-Weld™ Anaerobic Adhesives — Threadlockers and Activators

Product (Color)	Key Features	Typical Viscosity (cP)	Temperature Range	Time to Handling	Full Cure (Hours)	Size	UPC	Stock #
Threadlockers								
TL22 (Purple)	Screwlock — low removal torque fasteners less than a 1/4 in. (6mm)	1,200	-65° to 300°F (-54° to 149°C)	< 30 min.	24	50mL bottle	00-048011-62602-4	7100039159
TL42 (Blue)	Nutlock — medium strength, general purpose	1,200	-65° to 300°F (-54° to 149°C)	< 30 min.	24	1mL pipette 10mL bottle 50mL bottle 250mL bottle 1 liter bottle	00-048011-62604-8 00-048011-62605-5 00-048011-62606-2 00-048011-62607-9 00-051115-25124-5	7100064043 7100039190 7100039193 7100039192 7010310189
TL43 (Blue)	Oil tolerant, medium strength, general purpose	10,000–18,000	-65° to 300°F (-54° to 149°C)	< 30 min.	24	10mL bottle 50mL bottle 250mL bottle	00-051115-25138-2 00-051115-25139-9 00-051115-25140-5	7100039219 7100039222 7100039221
TL71 (Red)	Permanent studlock for bolts and studs up to 1 in. (25mm)	500	-65° to 400°F (-54° to 204°C)	< 30 min.	24	10mL bottle 50mL bottle 250mL bottle	00-048011-62612-3 00-048011-62613-0 00-048011-62614-7	7100039197 7100039231 7100039230
TL90 (Green)	Penetrating adhesive for pre-assembled fasteners and porosity sealing of welds	20	-65° to 300°F (-54° to 149°C)	< 30 min.	24	10mL bottle 50mL bottle 250mL bottle	00-048011-62615-4 00-048011-62616-1 00-048011-62617-8	7100039234 7100039236 7100039235
Activators								
AC649 (Green)	Acetone-based green primer for inactive or very cold surfaces 30-day part life for pre-application California compliant	<3	N/A	<5 min.	24	8 fl. oz. bottle	00-048011-62709-0	7010367620

3M™ Scotch-Weld™ Multi-Material Composite Urethane Adhesive DP6310NS

3M™ Scotch-Weld™ Multi-Material Composite Urethane Adhesive DP6310NS is a green, non-sag, two-component urethane for bonding a variety of composites, plastics, metals and wood. This flexible adhesive has excellent elongation; and stress strain properties for durable bonding of composite parts and multi-material assemblies.


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3M™ Scotch-Weld™ Plastic and Rubber Instant Adhesives

The PR (Plastic & Rubber) series of products bonds to most plastics and rubbers with a range of viscosities that will fit all your application needs. Just a single drop per square inch bonds several thousand pounds of holding power. They provide proven, world record strength with a hold of 8 metric tons.



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For lead times on bulk adhesives, please contact your 3M representative.

Key Product **Denotes product to consider first in this category.** * **After Key Products, consider these.**

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

3M™ Scotch-Weld™ EPX Applicators and Nozzles

3M™ EPX Applicators and Nozzles

Product	Replacement Plunger Orders	Mix Ratio	Nozzle Length (Inches)	Static Mixing Nozzle Options	
3M™ Scotch-Weld™ EPX™ Plus II Applicator* **Stock #:** 7100148764 **UPC:** 00-063806-01001-7 *Includes 1:1 / 2:1 shared plunger and 10:1 plunger.  387	1:1/2:1 Shared Plunger **Stock #:** 7010415317 **UPC:** 00-063806-01000-0	48.5mL (1:1) 50mL (2:1)	3.6	**3M™ Scotch-Weld™ EPX™ Mixing Nozzle** Square Green, 48.5mL/50mL **Stock #:** 7100104991 **UPC:** 0-00-76308-86434-7	 **Bulk:** 7100148765 **Bulk:** 0-00-63806-01003-1
		48.5mL (1:1) 50mL (2:1)	6.2	**3M™ EPX™ Mixing Nozzle** Helical White, 48.5mL/50mL **Stock #:** 7100148766 **UPC:** 00-063806-01004-8	 **Bulk:** 7100148756 **Bulk:** 00-063806-01005-5
	10:1 Plunger **Stock #:** 7010329933 **UPC:** 0-00-76308-86391-3	43mL (10:1) 45mL (10:1)	3.6	**3M™ Scotch-Weld™ EPX™ Mixing Nozzle** Square Orange, 45mL **Stock #:** 7100007806 **UPC:** 0-00-51115-69043-3	 **Bulk:** 7100148756 **Bulk:** 00-063806-01005-5
3M™ EPX™ Pneumatic Applicator 48.5/50mL **Stock #:** 7100148769 **UPC:** 00-063806-01006-2  388	N/A	43mL (10:1) 48.5mL (1:1)	3.6	**3M™ Scotch-Weld™ EPX™ Mixing Nozzle** Square Green, 43mL/48.5mL **Stock #:** 7100104991 **UPC:** 0-00-76308-86434-7	 **Bulk:** 7100148765 **Bulk:** 0-00-63806-01003-1
		48.5mL (1:1) 50mL (2:1)	6.2	**3M™ EPX™ Mixing Nozzle** Helical White, 48.5mL/50mL **Stock #:** 7100148766 **UPC:** 00-063806-01004-8	 **Bulk:** 7100148756 **Bulk:** 00-063806-01005-5
3M™ Scotch-Weld™ Dual Drive Manual 1:1/2:1 Applicator 200mL **Stock #:** 7100244673 **UPC:** 00-0638060-40916-9  389	1:1/2:1 Shared Plunger **Stock #:** 7100148764 **UPC:** 00-063806-01001-7	200mL (2:1 & 1:1) 400mL (2:1 & 1:1)	5.0	**3M™ Scotch-Weld™ EPX™ Mixing Nozzle** Square Gold, 200mL/400mL **Stock #:** 7000028616 **UPC:** 00-063806-01004-8	
			7.5	**3M™ Scotch-Weld™ EPX™ Mixing Nozzle** Helical White, 200mL/400mL **Stock #:** 7000046633 **UPC:** 0-00-21200-87982-1	
3M™ EPX™ 400mL Manual Applicator **Stock #:** 7000046634 **UPC:** 00-051111-98073-6  390	N/A	200mL (2:1 & 1:1) 400mL (2:1 & 1:1)	5.0	**3M™ Scotch-Weld™ EPX™ Mixing Nozzle** Square Gold, 200mL/400mL **Stock #:** 7000028616 **UPC:** 0-00-21200-97331-4	
			7.5	**3M™ Scotch-Weld™ EPX™ Mixing Nozzle** Helical White, 200mL/ WW400mL **Stock #:** 7000046633 **UPC:** 0-00-21200-87982-1	

3M™ Scotch-Weld™ EPX Applicators and Nozzles

3M™ EPX™ Applicators and Nozzles

Product	Replacement Plunger Orders	Mix Ratio	Nozzle Length (Inches)	Static Mixing Nozzle Options
3M™ Scotch-Weld™ Dual Drive Manual 10:1 Applicator **Stock #:** 7100244472 **UPC:** 00-638060-40914-5  391	N/A	490mL (10:1)	9.5	**3M™ Scotch-Weld™ EPX™ Mixing Nozzle** Helical Orange, 490mL **Stock #:** 7100304367 **UPC:** 0-00-51115-69042-6 
			4.4	**3M™ Scotch-Weld™ EPX™ Mixing Nozzle** Square Green, 490mL **Stock #:** 7100066351 **UPC:** 0-00-51115-81619-2 
3M™ Scotch-Weld™ Dual Drive Pneumatic 1:1/2:1 Applicator 200mL **Stock #:** 7100244628 **UPC:** 00-638060-40917-6  392	N/A	200mL (2:1 & 1:1)	5.0	**3M™ Scotch-Weld™ EPX™ Mixing Nozzle** Square Gold, 200mL/400mL **Stock #:** 7000028616 **UPC:** 0-00-21200-97331-4 
			7.5	**3M™ Scotch-Weld™ EPX™ Mixing Nozzle** Helical White, 200mL/400mL **Stock #:** 7000046633 **UPC:** 0-00-21200-87972-1 
3M™ Scotch-Weld™ Dual Drive Pneumatic 1:1/2:1 Applicator 400mL **Stock #:** 7100244682 **UPC:** 0-00-638060-40918-3  393	N/A	400mL (2:1 & 1:1)	5.0	**3M™ Scotch-Weld™ EPX™ Mixing Nozzle** Square Gold, 200mL/400mL **Stock #:** 7000028616 **UPC:** 0-00-21200-97331-4 
			7.5	**3M™ Scotch-Weld™ EPX™ Mixing Nozzle** Helical White, 200mL/400mL **Stock #:** 7000046633 **UPC:** 0-00-21200-87982-1 
3M™ Scotch-Weld™ Dual Drive Pneumatic Applicator 490mL **Stock #:** 7100244681 **UPC:** 00-638060-40919-0  394	N/A	490mL (10:1)	9.5	**3M™ Scotch-Weld™ EPX™ Mixing Nozzle** Helical Orange, 490mL **Stock #:** 7100304367 **UPC:** 0-00-51115-69042-6 
			4.4	**3M™ Scotch-Weld™ EPX™ Mixing Nozzle, Low Waste** Square Green, 490mL **Stock #:** 7100066351 **UPC:** 0-00-51115-81619-2 
Standard Caulk Gun	N/A	3M™ Concrete Repair Urethane 8.4 oz. cartridges	5.5	**3M™ Concrete Repair 8.4 oz. Cartridge Nozzles** **Stock #:** 7000046642 **UPC:** 0-00-48011-53382-7 

For low volume applications and take-it-to-the-job convenience, the 3M™ EPX metal manual applicators comfortably dispense any of the 3M™ Scotch-Weld™ Duo-Pak Structural Adhesives. For higher volume applications, select the 200mL manual dispenser, or the 200mL or 400mL pneumatic dispenser. For concrete repair, there are both manual or pneumatic options.

3M™ Scotch-Weld™ One-Part Heat Cured Epoxies require a unique manual or pneumatic dispenser, such as Semco® 250, 350, 850, 950, or equivalent.

3M™ Scotch-Weld™ Structural Adhesives Surface Preparation Tips

The following surface preparation steps are generally recommended for most substrates and structural adhesives. See Technical Data Sheets for more specific recommendations.

Metals

1. Safely wipe surface with acetone or methyl ethyl ketone (MEK) using a clean cloth. A heavier degreaser may be needed if the substrate contains a layer of processing oil.
2. Lightly abrade surface with sandblasting, fine grit sandpaper or 3M™ Scotch-Brite™ 7447 maroon pads.
3. Wipe surface with acetone or MEK to remove debris.
4. Allow surface to dry before applying adhesive.

Plastics and Rubbers

1. Lightly abrade surface with sandblasting, fine grit sandpaper or 3M™ Scotch-Brite™ 7447 maroon pads.
2. Wipe surface with isopropyl (IPA) alcohol using a clean cloth to remove debris.
3. Allow solvent to evaporate before applying adhesive.

Glass

1. Wipe surface using a clean cloth with solvent containing 0.5 wt % silane adhesion promoter or wipe with 3M™ Scotch-Weld™ Metal Primer 3901.
2. Allow solvent to evaporate before applying adhesive.

3M™ Hot Melt Adhesive Selector Guide

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.



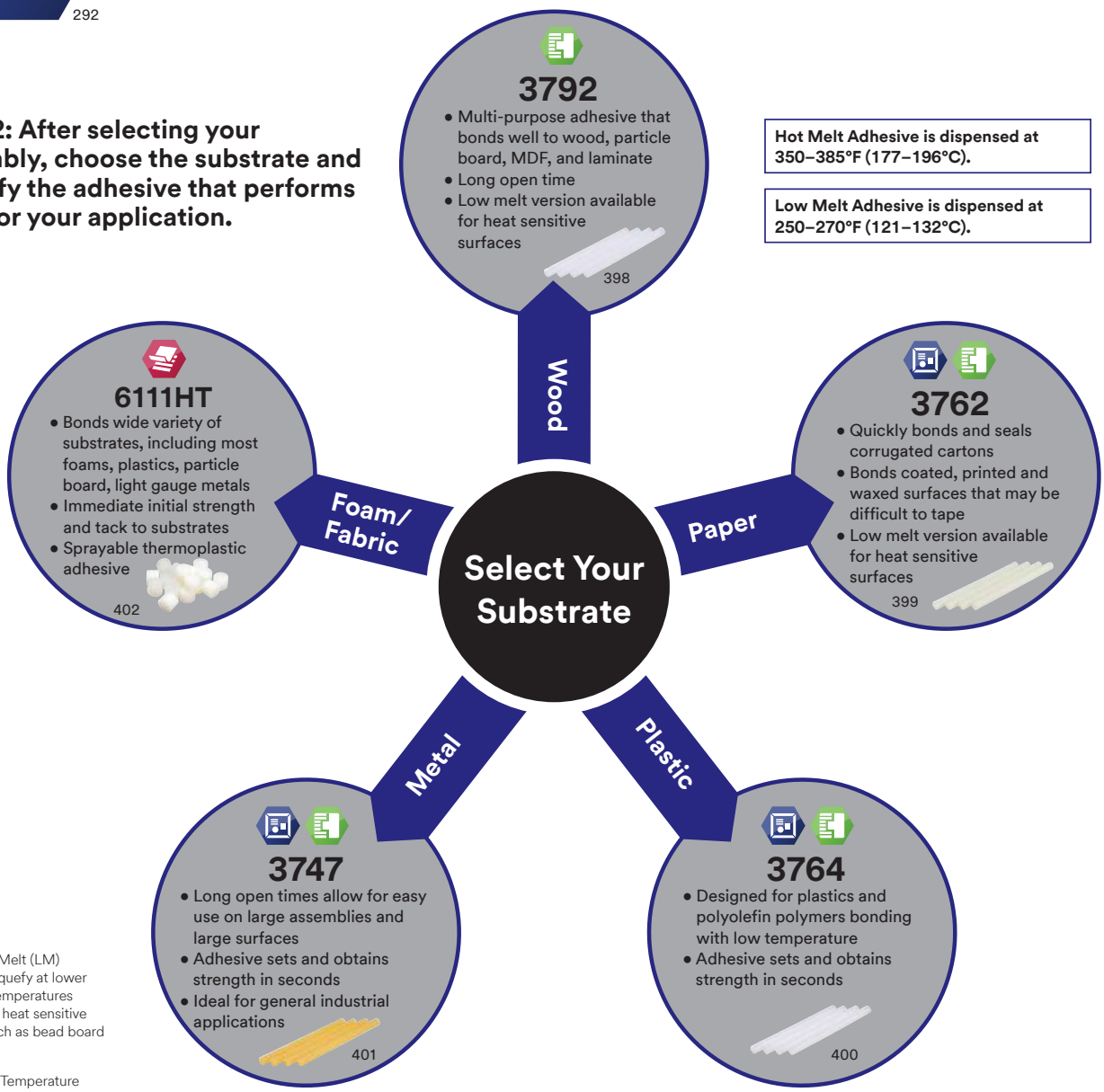
Mounting and Trim Attachment

Small objects are mounted or added to a large surface.

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

Hot Melt Adhesive is dispensed at 350–385°F (177–196°C).

Low Melt Adhesive is dispensed at 250–270°F (121–132°C).



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.

3M™ Hot Melt Spray Adhesives

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Immediate Bonding of Foam and Other Lightweight Materials

3M™ Hot Melt Spray Adhesive is a fast, effective alternative to solvent-based adhesives for bonding most foams, fabrics, plastics, wood and light-gauge metals. Applications range from furniture cushions to foam inserts, modular office panels to gym floor pads, and more. You simply spray a controlled pattern of 100% solids adhesive right where you want it. Apply to one or both surfaces and bond substrates immediately.

Other features include:

- Up to 10-minute open time for handling convenience and bonding larger areas
- Available in two colors to easily identify spray pattern*
- Bulk format adhesives for ease of use in most delivery systems

*See chart below.



Can bond multiple substrates, large surface areas with 1 or 2 surface applications.



In display cases for jewelry and other retail items, foam is bonded to foam and fabric. Low temperature spray will not damage heat-sensitive substrates.



In carrying case assembly, 3M™ Hot Melt Spray Adhesive bonds foam to foam, plywood, metal or plastic.

Adhesives Characteristics and Suggested Coverage

Product Characteristics	6111 HT/6111 HT Blue
Description	Higher Heat Resistance
Color	Tan/Blue
Open Time[1] One Surface (Foam/PVC)	3 min
Open Time[1] Two Surface (Foam/Foam)	8 min
Heat Resistance[2]	175°F (79°C)
Peel Adhesion[3] (PIW) **Fir**	25.6
ABS	16.5
Polypropylene	14.4
PVC	16.3
Cold Rolled Steel	29.9
High Density Polyethylene	2.3

Typical Coverage	Smooth Surface	Textured Surface
Two Surface Applications	1–2g/ft²	2–3g/ft²
One Surface Application	3–5g/ft²	5–7g/ft²

1 – Bonds were made by spraying adhesive onto 3/4" thick, 2 lb. density polyester urethane foam. Open time will vary depending on substrate.
2 – Tested per 3M IATD test method C-3093 using 2 lb. dead load.
3 – According to 3M IATD test method C-3012. 180° peel strength was determined at a cross head speed of 2"/min. at 73°F (23°C).

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

3M™ Hot Melt Adhesives and Applicators

The 3M Systems Approach to Help You Improve Productivity and Lower Costs

3M™ Hot Melt Adhesives and Applicators are advanced hand-held systems to help you improve productivity, lower cost and minimize waste.

Adhesives are 100% solids thermo-plastic resins that become fluid when heated and quickly wet the bonding surface. They cool, harden and reach bond strength in seconds. You can move assemblies immediately to keep production flowing. This helps eliminate clamps, fixturing and drying, and saves time, energy and space.

Each adhesive is designed and precisely manufactured for efficient use in one of the portable 3M™ Hot Melt Applicators. Bonds wood, plastic, foam, fabric, cardboard and more.



3M™ Hot Melt Applicator LT with 3M™ Hot Melt Adhesive 3762LM low temperature (265°F/129°C) adhesive effectively bonds heat-sensitive substrates such as styrene foam to itself, corrugated or other surfaces without damaging the foam.



For bonding the guide to a drawer bottom, 3M™ Hot Melt Adhesive 3792 provides high delivery rate and long bonding range.



For sample and display boards, attach wood flooring, laminates, foams, fabrics or other materials and small products with 3M™ Hot Melt Adhesive 3792.



For economical package sealing, 3M™ Hot Melt Adhesive 3762 is a versatile formulation with a bonding range for production speed. Variety of tips for package types.



To help with sound dampening on drawer bottoms, use 3M™ Hot Melt Adhesive 3792.



3M™ Hot Melt Applicator LT and 3M™ Hot Melt Adhesive 3792LM applied at low temperature (265°F/129°C) make quick work of welting, gimping, and bonding fabric to wood.



For versatility in P.O.P. assembly, 3M™ Hot Melt Adhesive 3792 bonds a variety of plastics, woods and light gauge metals.

Selecting a 3M™ Hot-Melt Applicator to Fit Your Needs

A



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3M™ Hot Melt Applicator TC with Quadrack, Gen II Converter. Medium volume.
UPC# 68060-001481

B



129

3M™ Pneumatic Hot Melt Applicator PG II LT with Speedloader. High volume using low melt adhesive.
UPC# 021200-89395

C



134

3M™ Hot Melt Applicator AE, Gen II. Low volume.
UPC# 68060-002143

D



130

3M™ Hot Melt Applicator TC, Gen II. Low-medium volume.
UPC# 68060-001474

E



133

3M™ Pneumatic Hot Melt Applicator PG II with Speedloader. High volume.
UPC# 021200-22033

F



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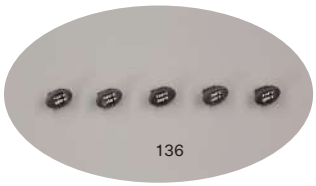
3M™ Hot Melt Applicator AE, Gen II. Low volume.
UPC# 68060-002167

G



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3M™ Hot Melt Applicator EC, Gen II. Medium volume; variable temperature control.
UPC# 68060-001443



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3M™ Hot Melt Applicators

Product	Weight[1]	Output[2] (lb./hr.)	Temp.[3] °F (°C)	Power (120V)	Adhesive Dia. x L (in.)	Features	Warranty (Months)
Low Melt Applicators							
(A) 3M™ TC/TC-Q GEN II	1.05 lbs	4.0	265 (129)	250W	5/8 × 2 TC 5/8 × 8 Q	For use with low melt adhesives in TC or Quadrack Style.	12
(B) Pneumatic PGII LT with Speedloader	4.3 lb	6.0	265 (129)	500W	1 × 3 PG	Pneumatic high output for low melt adhesives.	12
(C) 3M™ AE GEN II	1.05 lbs	4.0	265 (129)	250W	1/2 × 10 AE 1/2 × 12 AE	For use with low melt adhesives.	12
Hot Melt Applicators							
(D) 3M™ TC/TC-Q GEN II	1.05 lbs	4.0	380 (193)	250W	5/8 × 2 TC 5/8 × 8 Q	For use with standard melt adhesives in TC or Quadrack Style	12
(E) Pneumatic PG II with Speedloader	4.3 lb	7.5	385 (196)	500W	1 × 3 PG	Pneumatic high output for standard melt adhesives.	12
(F) 3M™ AE GEN II	1.05 lbs	4.0	380 (193)	250W	1/2 × 12 AE	For use with standard melt adhesives	12
Variable Applicators							
(G) 3M™ EC GEN II	1.4 lb	5.5	160 (320), 180 (356), 195 (380), 205 (401), 215 (419)	300W	5/8 × 8 Q	Temperature modules to operate with standard and low melt adhesives	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 and below this value.

Accessories to Improve Your Productivity

Product	Description	UPC	SN
9725	0.072 in. Mini Extension Tip	021200-21786	62-9725-9930-2
9785	0.07 in. Tapered Aluminum Extension (all applicators)	021200-82554	62-9785-9930-6
9921	0.090 in. Fluted Tip	021200-21840	62-9921-0066-9
9929	High Viscosity Valve (TC, EC, PG II)	021200-64840	62-9729-9930-4
9940	0.125 in. Fluted Tip	021200-22036	62-9940-6920-1
9946	0.072 in. Brass Extension (PG II, PG II LT)	021200-22040	62-9946-6980-2
Heavy-Duty Benchstand	For use with PG II and PG II LT	021200-22039	62-9945-9930-6
	For use with EC, TC and LT	021200-82418	62-9945-9935-5
Bench Mount	Includes bench nozzle assembly (Does not include applicator)	021200-82277	62-9276-9930-6
Bench Nozzle Assembly	For use with bench mounted applicator	021200-21713	62-9233-2781-1
Foot Pedal Assembly	For use with bench mounted applicator	021200-82278	62-9277-9930-4




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Heavy-Duty Benchstands provide added convenience.

Increase loading capacity and ease of operation with Quadrack Converter and Palm Trigger.

Foot Pedal


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Foot pedal, magazine feeder and benchmount accessories can provide high capacity, hands-free operation for 3M™ Hot Melt PG II and PG II LT Applicators.

Valve Assembly Kit


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Bench Nozzle Assembly

Benchmount

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

3M™ Hot Melt Adhesives

	Product/Cat #	Color	Features/Application Ideas	Sizes	Legacy SKU	SAP SKU	Case Qty.	Billing Unit
Low Melt Technology: Applied 250–270°F (121–132°C)	3762LM* Lead Product	Light Amber	Excellent "hot tack", fast setting for corrugated, beadboard, recouperage, repacking chipboard and wood. Economical, general purpose. Use with low melt applicator only.	5/8 in. x 8 in. Q	62-3720-9132-2	7100025246	11	LBS.
				5/8 in. x 2 in. TC	62-3720-9830-1	7000121330	11	
				1 in. x 3 in. PG	62-3720-9330-2	7000121328	22	
				1/2 in. x 12 in. AE	62-3720-9531-5	7000121329	11	
	3792LM* Lead Product	Clear	Clear, multi-purpose for wood, coated paper, polyolefins and other heat-sensitive materials. P.O.P. displays. Use with low melt applicator only.	5/8 in. x 8 in. Q	62-3760-9132-8	7000000880	11	LBS.
				5/8 in. x 2 in. TC	62-3760-9830-7	7000121341	11	
				1 in. x 3 in. PG	62-3760-9330-8	7100020424	22	
				1/2 in. x 12 in. AE	62-3760-9531-1	7100042234	11	
Hot Melt Technology: Applied 350–385°F (177–196°C)	3731*	Tan	High heat resistance. Bonds plastics including polyethylene, polypropylene.	5/8 in. x 8 in. Q	62-3731-9132-9	7100009195	11	LBS.
				1 in. x 3 in. PG	62-3731-9330-9	7100020337	22	
	3738*	Tan	High delivery rate and long bonding range. General purpose for foundry sand cores, wood bonding, corrugated, selected plastics and chipboard.	5/8 in. x 8 in. Q	62-3738-9132-4	7100008738	11	LBS.
				5/8 in. x 2 in. TC	62-3738-9830-3	7100009196	11	
				1 in. x 3 in. PG	62-3738-9330-4	7100020456	22	
				1/2 in. x 12 in. AE	62-3738-9531-7	7100023046	11	
	3747 Lead Product	Tan	General purpose for wide variety of plastics, wood and lightweight metals.	5/8 in. x 8 in. Q	62-3747-9132-5	7000000877	11	LBS.
				5/8 in. x 2 in. TC	62-3747-9830-4	7000121336	11	
				1 in. x 3 in. PG	62-3747-9330-5	7100020458	22	
				1/2 in. x 12 in. AE	62-3747-9531-8	7100020323	11	
	3748*	Off-White	Good thermal shock resistance. Non-corrosive to copper for many electronic applications. Bonds polyolefins.	5/8 in. x 8 in. Q	62-3748-9132-3	7000000878	11	LBS.
				5/8 in. x 2 in. TC	62-3748-9830-2	7000000879	11	
				1 in. x 3 in. PG	62-3748-9330-3	7100005566	22	
	3748 VO	Light Yellow	Self-extinguishing version of 3748. Meets UL 1410 requirements.	5/8 in. x 8 in. Q	62-3768-9132-1	7000000887	11	LBS.
				5/8 in. x 2 in. TC	62-3768-9830-0	7000121345	11	
				1 in. x 3 in. PG	62-3768-9330-1	7010330271	22	
	3750	Tan	Low viscosity for high flow rate, increased production. Good hot tack, quick grab for packaging and woodworking.	1/2 in. x 10 in. AE	62-3726-9531-2	7000121331	11	LBS.
	3750	Clear	Low viscosity for high flow rate, increased production. Good hot tack, quick grab for packaging and woodworking.	1/2 in. x 10 in. AE	62-3729-9531-6	7000046499	11	LBS.
	3762 Lead Product	Tan	Excellent "hot tack", fast setting for corrugated, beadboard, recouperage, repacking chipboard and wood. Economical, general purpose.	5/8 in. x 8 in. Q	62-3762-9132-4	7100023053	11	LBS.
				5/8 in. x 2 in. TC	62-3762-9830-3	7100020333	11	
				1 in. x 3 in. PG	62-3762-9330-4	7000046513	22	
				1/2 in. x 12 in. AE	62-3762-9531-7	7100023019	11	
	3764* Lead Product	Clear	Bonds variety of plastics including polycarbonate, polyethylene, and polypropylene. Flexible at low temperatures.	5/8 in. x 8 in. Q	62-3764-9132-0	7100008178	11	LBS.
				5/8 in. x 2 in. TC	62-3764-9830-9	7000000886	11	
				1 in. x 3 in. PG	62-3764-9330-0	7000000884	22	
				1/2 in. x 12 in. AE	62-3764-9531-3	7000000885	11	
	3779*	Amber	High heat resistance. High strength. Electronics wire attachment.	5/8 in. x 8 in. Q	62-3779-9132-8	7000000088	11	LBS.
				5/8 in. x 2 in. TC	62-3779-9830-7	7000000890	11	
				1 in. x 3 in. PG	62-3779-9330-8	7100009192	22	
	3789*	Brown	High performance for plastics. Impact resistant. Bonds vinyl and wood.	5/8 in. x 8 in. Q	62-3789-9132-7	7100008737	11	LBS.
				1 in. x 3 in. PG	62-3789-9330-7	7100020457	22	
	3792* Lead Product	Clear	Clear, multi-purpose for wood, corrugated, fabric, furniture, upholstery, novelties, and other lightweight materials.	5/8 in. x 8 in. Q	62-3792-9132-1	7000000891	11	LBS.
				5/8 in. x 2 in. TC	62-3792-9830-0	7100020336	11	
				1 in. x 3 in. PG	62-3792-9330-1	7100020334	22	
				1/2 in. x 12 in. AE	62-3792-9531-4	7100020335	11	
	3797	Off-White	High ball and ring. Low viscosity. Good for electrical potting.	5/8 in. x 2 in. TC	62-3797-9830-9	7000121350	11	LBS.
				1 in. x 3 in. PG	62-3797-9330-0	7000000892	22	
Bulk Only	6111HT Lead Product	Tan, Blue	Sprayable hot melt adhesive, bonds to polyurethane foam, felt, fabric and lightweight aluminum. Available in Tan and Blue.	0.75 in. x 0.75 in. chips	62-6115-9335-1	7100069028	22	LBS.
					62-6113-9335-6	7100023018	22	
					62-6113-9339-8	7010292724	850	
					62-6115-9339-3	7010309934	850	

*Also available in bulk.
**Initial starting point for temperature modules.

1. Brookfield Thermosel Viscometer in Centipoise; 2. Douglas Fir to Douglas Fir; 3. 1/8" semicircular bead, Douglas Fir to Douglas Fir;
4. Made from components listed as indirect food additives under FDA regulations for adhesives (21 CFR 175.105).

3M™ Hot Melt Adhesives

	Product/Cat #	EC Temp. Control Modules**	Viscosity CPS[1]	Delivery Time 3 in. Length of Stick Type (sec.)	Shear Strength PSI[2] 72°F (22°C)	Open Time 1/8 in. Bead[3] (sec.)	FDA Listed[4]	UL 94 Listing
Low Melt Technology: Applied 250–270°F (121–132°C)	**3762LM*** Lead Product	N/A	4,000 @ 250°F	Q-TBD TC-TBD PG-45 AE-10	Fir: 375	25	Yes	N/A
	3792LM* Lead Product	N/A	10,500 @ 250°F	Q-15 TC-TBD PG-60 AE-TBD	Fir: 280	40	Yes	V2
Hot Melt Technology: Applied 350–385°F (177–196°C)	**3731***	420°F (215°C) 	12,000 @ 375°F	Q-30 PG-65	Fir: 490 PP: 430	30	—	N/A
	3738*	400°F (205°C) 	2,875 @ 375°F	Q-TBD TC-15 PG-35 AE-TBD	Fir: 350	50	Yes	V2
	3747 Lead Product	400°F (205°C) 	4,100 @ 375°F	Q-15 TC-TBD PG-45 AE-TBD	Fir: 430 Steel: 410 PVC: 410	45	Yes	N/A
	3748*	400°F (205°C) 	5,750 @ 356°F	Q-25 TC-TBD PG-65	Fir: 250	30	Yes	V2
	3748 VO	400°F (205°C) 	5,500 @ 392°F	Q-30 TC-TBD PG-65	Fir: 205	30	—	VO
	3750	N/A	2,550 @ 375°F	AE-6	500, TBD	30	—	N/A
	3750	N/A	4,100 @ 375°F	AE-10	250, TBD	30	—	N/A
	3762 Lead Product	350°F (180°C); 380°F (195°C) 	4,650 @ 300°F	Q-15 TC-TBD PG-30 AE-TBD	545	35	Yes	V2
	3764* Lead Product	400°F (205°C) 	6,000 @ 375°F	Q-20 TC-TBD PG-55 AE-TBD	390	30	Yes	V2
	3779*	420°F (215°C) 	7,000 @ 375°F	Q-TBD TC-TBD PC-75	700	25	Yes	N/A
	3789*	420°F (215°C) 	5,200 @ 375°F	Q-25 PG-70	570	50	Yes	V2
	3792* Lead Product	400°F (205°C) 	5,000 @ 375°F	Q-15 TC-TBD PG-45 AE-TBD	250	<50	Yes	V2
	3797	350°F (180°C) 	3,600 @ 350°F	TC-20 PG-55	PP: 330	30	Yes	V2
Bulk Only	**6111HT** Lead Product	N/A	2,500–4,500 @ 375°F	N/A	PP: 300	1 surface: 180 2 surface: 480	—	N/A

*Also available in bulk.
**Initial starting point for temperature modules.

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

Solvent and Water Based Adhesives

Unite Performance, Productivity and Sustainability

3M™ Solvent and Water Based Adhesives start with the customer. Their process, their requirements and their wishes. Then the 3M team of industry experts, in conjunction with our comprehensive technology portfolio, offers customers versatility, efficiency and confidence to answer their "what if?"


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Performance

Find the RIGHT product for your assembly with the RIGHT questions:

- What substrates are being bonded?
- What are the issues with your current product?
- Are there any environmental Health and Safety requirements?
- Are there specific product attributes needed?
- Are there specific manufacturing requirements?
- What is the size of the substrate being sprayed?

Sustainability

Low Emissions. High Standards.



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Going "green" does not mean that you have to give up on performance. For 40 years our engineers have been developing water-based, low VOC and GREENGUARD Certified adhesives that have been used in the most demanding applications.

So, are you ready to go "green?" We're ready to take you there.


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Productivity

Our goal is to make your business as efficient and effective as possible. How the adhesive gets to your assembly is equally as important as the adhesive itself. We work with you to integrate the best delivery system for your process.


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Cylinders

- Self-contained and pressurized
- Portable
- Minimal equipment investment
- Low maintenance
- Optimized spray pattern cuts waste and maximizes coverage


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Aerosols

- Convenient for smaller jobs or multiple stations
- Easy to use and no equipment


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Bulk

- Cost effective
- Integrate into existing equipment

Multipurpose Adhesives — Solvent and Water Based

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Insulation, Light Fabrics, Cardboard and Other Light Duty Bonding

Those working with HVAC, General Industrial, Signage, Exhibit/P.O.P. and packaging can effectively bond insulation, light fabrics, cardboard and paper with these versatile adhesives.

- Insulation attachment (polystyrene*, fiber glass, foam, etc.)
- General assembly
- Temporary holding (third hand)
- P.O.P. displays
- Carton sealing, palletizing and label attachment

*Not all products are compatible with polystyrene.

MULTI-PURPOSE — Solvent Based Adhesives

	Product	Requirement	Size Availability
Key Product	70	FAST TACKING	Cylinder Bulk
	77	Low soak in, mist spray	Aerosol Cylinder Bulk

MULTI-PURPOSE — Water Based Adhesives

	Product	Requirement	Size Availability
Key Product	1000NF	ONE-SIDED BONDING	Bulk
	49	Long open time, long tack time	Bulk
	100NF	Immediate bonding	Bulk

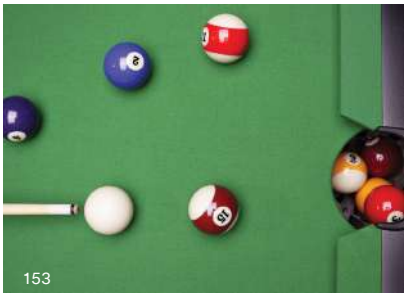
Aerosol Cylinder Bulk



3M multipurpose adhesives are commonly used for installation of shoddy material, venting insulation and other foams and fabrics. Our product line offers the most versatility for adhesive delivery. 3M™ Super 77™ Multipurpose Spray Adhesive, for example, can be sprayed from bulk containers, cylinders or aerosol cans.



When thinking insulation, don't stop at heating and ventilation. In this application, our adhesives can be used for installation of foam for acoustical soundproofing.







The variety of applications for these multi-purpose adhesives is nearly endless. From adhering pool table felt, to building architectural models, and even bonding protective materials like dense foams into electronics, musical instrument or sensitive equipment cases. 3M has a spray adhesive solution to fit customers' needs.

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

Woodworking and Large Surface Lamination — Solvent and Water Based

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Wood, Metal and Rubber Flooring

Woodworking, transportation, construction, and general industrial markets can effectively bond metals, wood, rubber, carpet and flooring (vinyl tiles) with this line of adhesives. Some applications include transportation flooring and carpet, store fixtures and furniture.

- High pressure laminate (HPL)
  - Countertops
  - Furniture
  - Display fixtures
- Edge banding
- Specialty vehicle flooring
- Wood furniture
- Trade show displays



Marine and specialty vehicle applications, like installing carpet, rubber or synthetic flooring, are perfect for 3M sprayable adhesives. Our quick tack, low VOC and cylinder delivery are common benefits in this market.

HEAVY DUTY — Solvent Based Adhesives

	Product	Requirement	Size Availability
Key Product	**94 CA**	**FAST TACKING, POSTFORMABLE**	Cylinder Bulk
	90	High strength	Aerosol Cylinder Bulk
	92	High temperature resistance	Cylinder Bulk
	94 ET	Longer open time, more aggressive tack	Aerosol Cylinder Bulk
	5	Very high temperature resistance	Bulk
	1099	Plasticizer resistance, harsh environments	Bulk



Consider trade show exhibits and store fixtures that are often updated several times a year. 3M's adhesive line offers very low cost per square foot bonded for applications where our customers value total applied cost.

HEAVY-DUTY — Water Based Adhesives

	Product	Requirement	Size Availability
Key Product	**30NF**	**HIGH STRENGTH**	Bulk
	2000NF	Faster initial strength	Bulk
	1000NF	One surface bonding, fast assembly, plasticizer resistance	Bulk

Aerosol Cylinder Bulk



3M™ Hi-Strength 90 Spray Adhesive has a long reputation of holding strong in critical applications like this edge banding strip. Also, 3M has multiple adhesives that are postformable. Postforming is where the laminate is heated and bent as much as 360° around a radius.

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Foam and Fabric Adhesives — Solvent and Water Based

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Upholstery and Furniture

Users in the furniture manufacturing, upholstery, or transportation industry can rely on these adhesives to permanently bond open cell foam, closed cell foam and fabrics in a variety applications.

- Upholstered furniture and seating
- Headliners
- Office partitions
- General foam bonding


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Foam and fabric applications can be very challenging. From soft bond lines to tight radiuses, our lineup can meet the demand. The 3M portfolio of water and solvent based adhesives truly give the customer "flexibility."

FOAM & FABRIC — Solvent Based Adhesives		
Product	**Requirement**	**Size Availability**
74	Soft bond lines	Aerosol Cylinder
77	Low soak in, mist spray	Aerosol Cylinder Bulk

FOAM & FABRIC — Water Based Adhesives		
Product	**Requirement**	**Size Availability**
Key Product **100NF**	**HIGH COVERAGE**	Bulk
100NF + Activator	Faster initial strength	Bulk
1000NF	One surface bonding, higher heat resistance	Bulk

Aerosol Cylinder Bulk



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Aerosol adhesives provide either web or mist spray patterns with higher solid content than our competitors. This combination allows 3M adhesives to sit on the surface versus soaking in. More adhesive on the surface results in less adhesive usage and a better bond for the customer.


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These solvent and water based adhesives are often used as a "third hand" to hold lightweight materials in place until they can be sewn or held in place by other assembly methods.

High Performance Specialty Adhesives — Solvent and Water Based

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Rubber and Plastic

Industrial, and Automotive professionals can rely on these adhesives to effectively bond rubber, plastics and specialty composites.

- Sealing and gasketing
- Chemical resistance
- Unique environments
  - Harsh environments
  - Chemical resistance



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In washing machine repair, 3M™ Neoprene High Performance Rubber and Gasket Adhesive 1300 bonds with high immediate strength and seals the doughnut ring seal in the outer tub.

SPECIALTY — Rubber and Gasket Adhesives			
	Product	Requirement	Size Availability
Key Product	1300	NEOPRENE OR SBR BONDING	Bulk
	1300L	Sprayable, low viscosity	Bulk
	847	Vinyl bonding, plasticizer resistant	Bulk
	4799	EPDM bonding	Bulk
	80	Aerosol	Aerosol

SPECIALTY — Plastic Adhesives			
	Product	Requirement	Size Availability
Key Product	1099	RESISTS WATER, OIL AND PLASTICIZER	Bulk
	1099L	Sprayable, low viscosity	Bulk
	4693	Polyolefin bonding	Bulk
	2262	Clear drying	Bulk

Aerosol Cylinder Bulk



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With excellent resistance to fuel and oil, 3M™ Nitrile High Performance Rubber and Gasket Adhesive 847 bonds and seals chemical drum gaskets in place.



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3M™ Cleaners and Lubricants

Convenience and a Fistful of Work Power for Maintenance and Production

In thousands of factories and plants, these aerosol chemicals are proven daily to save time and effort in maintenance and production. Lubricating, cleaning, inhibiting rust, and other tough jobs become finger-touch easy.

Compact container fits in a tool box to go readily to any job site and can help you reduce storage space and cost. With targeted application you get more usable product for your money.

3M aerosol chemicals contain no methylene chloride, chlorofluorocarbons (CFCs) or 1,1,1-trichlorethane (methyl chloroform).



329 330 331 332 333



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3M™ Silicone Spray Low VOC 60% lubricates cutting tools and tables. Fast, easy application helps prevent buildup of adhesive, wax, inks and paints. Won't stain or become gummy.



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For fast, easy cleanup of gears, 3M™ Industrial Citrus Base Cleaner helps soften and loosen grease, oil and grime. After using this heavy-duty degreaser/cleaner, just wipe away with a shop towel.



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3M™ Adhesive Remover removes adhesive without damaging surface underneath.

MAINTENANCE AND CLEANING

Product	Key Characteristics	Available Format	Color	Application Method	Spray Pattern	VOC Content
Adhesive Remover	Citrus based. Fast acting. No residue left behind.	1 gal., 5 gal., 52 gal.	Pale Yellow	Brush/Roll/Spray	Mist	840g/L
		18.5 oz. Aerosol	Pale Yellow	Spray	Mist	100%
		Mini Cylinder	Pale Yellow	Spray	Mist	800g/L
Adhesive Remover – Low VOC <20% Clear	Extended dwell time. No residual film. Meets CARB/OTC VOC Requirements. Helps contribute to LEED® credits.	Aerosol	Clear	Spray	Mist	15%
Industrial Citrus Base Cleaner	Citrus based. Non-corrosive. Cleans oil, grease, tar and grime.	Aerosol	Transparent	Spray	Mist	91%
Silicone Spray 60% VOC	Excellent lubricant. Fast drying. Long lasting and non-staining.	Aerosol	Clear	Spray	Mist	60%
Silicone Lubricant	Excellent lubricant. Fast Drying. Long-lasting and non-staining.	Aerosol	Clear	Spray	Mist	95%

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3M™ Cylinder Spray Adhesives

Efficient, Portable and Easy to Use

3M™ Cylinder Spray Adhesives have benefits over more traditional spray methods. Minimal startup costs, reduced downtime, simple hose and applicator setup make cylinders an obvious choice.

Whether your priorities are improving speed of application, making spraying easier or reducing capital equipment maintenance and other costs, 3M Cylinder Spray Adhesives get you there.



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Advantages and benefits:

- Very efficient speed of application and reduction of overspray
- Convenient, portable and easy to use delivery system
- Maintenance free and very low equipment costs

Other benefits include:

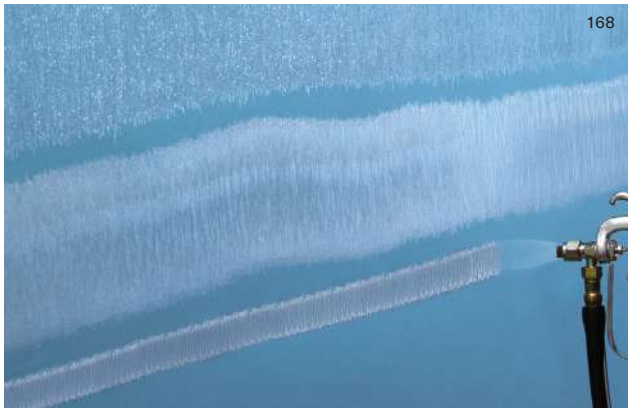
- More efficient spraying over large surface areas or multiple parts means virtually all adhesive is used and very little is wasted
- Easy to learn, use and train new employees to spray
- Portable for easy transition and setup for multiple stations or field work

Key features include:

- High coverage
- Various spray patterns
- Greenguard Certified
- Range of open time (worklife)



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Spray patterns from 1–18+" are achievable using 3M™ Cylinder Spray Adhesives and various spray tips.

Where to Start

Product Selection

The lead products for 3M™ Cylinder Adhesives are:

- 3M™ Postforming 94 CA Cylinder Spray Adhesive
- 3M™ Hi-Strength 94 ET Cylinder Spray Adhesive
- 3M™ Holdfast 70 Cylinder Spray Adhesive

The majority of applications can be done with these three cylinder products.



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3M™ Postforming 94 CA Cylinder Spray Adhesive is a low telegraphing that dries quickly to reach postformable strength in 1–5 minutes. A 1–15 minute open time provides flexibility in assembly speed. 3M™ Hi-Strength 94 ET Cylinder Spray Adhesive offers all the benefits of 3M™ Postforming 94 CA Cylinder Spray Adhesive, but delivers a higher tack and increased bonding range.


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For fast, easy foam board installation, above and below grade, simply spray and stick with 3M™ HoldFast 70 Cylinder Spray Adhesive. Bonds foam to concrete, waterproofing, OSB and more without damaging the foam.

Save Yourself the Hassle of Inefficient Spraying

Most common applications:

- High pressure laminate
- Foam/paper core steel door
- Upholstery
- Metal lamination
- Insulation bonding

Where to find these applications:

- Cabinet shops
- Elevator interiors
- Countertop shops
- Exhibit manufacturing
- Fixture/display manufacturing
- Office furniture
- Theatre/production sets
- Acoustic panel/partition

Key Questions

Asking the right questions related to the application will help you arrive at an adhesive selection quickly and painlessly.

Use A.S.P.E.C.

- What is the **APPLICATION** you are currently using the adhesive for?
- What **SUBSTRATES** does the adhesive need to bond too?
- Are there special **PROCESS** details the adhesive needs to accommodate? Such as high temperatures or VOC regulations?
- What kinds of **END USE** stress or environment will the bond be subject to? (e.g., boat carpet and saltwater conditions or exterior applications).
- How do you determine the **VALUE** beyond simply the **COST** of a product? (e.g., Improved coverage, reduced flammability or speed of application).



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3M™ Cylinder Spray Adhesives do not atomize spray patterns with added airline. This means you get consistent even spray patterns, potentially saving rework and cleanup.



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Consistent spray patterns and portable cylinders mean you can realize big improvements in efficiency and save time and labor costs.

3M™ Cylinder Spray Adhesive Quick Reference Guide

Product	Application	Solids (%)	Solids – Bulk (%)	Cylinder VOCs (g/L)	Coverage*	Open Time (min)	Spray Pattern	Spray Applicator Type	Suggested Tips
General Purpose									
60CA	General Purpose	43	42	<80	2075	1-60	Lace	Standard	9501, 6501
Specialty									
70	Construction, Marine, RV, Polystyrene	21	26	544	1036	1-60	Lace	Standard	QSS tip
71	Composites	20	NA	<80	1090	1-20	Mist	Standard	250050, 650050
74	Foam Bonding	22	36	563	1151	1-15	Lace	Standard	9501, 6501
77	Multi-Purpose	27	36	548	1458	1-15	Mist	Standard	250050, 650050
78 ET	Polystyrene	17	35	582	894	1-60	Lace	Standard	9501, 6501
High Performance, High Temperature Laminating									
78 HT	Polystyrene	15	27	601	771	1-60	Lace	Standard	9501, 6501
90	Laminating	13	23	571	680	1-10	Lace	Standard	9501, 6501, 250050
92	Laminating	23	34	577	1224	1-20	Lace	Standard	9501, 6501, 250050
94 CA	Laminating	28	34	<80	1332	1-15	Pebble	Restricted	4001, 6501
94 ET	Laminating	25	25	<80	1189	1-60	Pebble	Restricted	4001, 6501

3M™ Cylinder Spray Adhesive Equipment and Accessories





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9501



6501



4001



QSS



T-Fitting



Hose Swivel

Spray Tip	Angle	Spray Pattern Width
9501	95°	Wide
6501	65°	Medium
4001	40°	Narrow
QSS*	—	Very Wide
250050	25°	Very Narrow
650050	65°	Medium

*For 3M™ HoldFast 70 Spray Adhesive.

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Solvent and Water Based Adhesives



Product	Available Format	Solids Weight Percent (Approx.)	Key Characteristics	Adhesive Strength	Color	Application Method	Bonding Range (Two Surfaces)	Flammability	Heat Resistance (SAFT)	Spray Pattern	VOC Content
MULTI-PURPOSE											
Multi-Purpose 27	Aerosol	21%	Fast tack. Lightweight applications. Mist spray pattern.	Low	Clear	Spray	15 sec–10 min	Flammable	140°F	Mist	59%
General Purpose 60 CA	5 gal., 54 gal.	43%	High solids for increased coverage. High tack general purpose adhesive.	Medium	Clear	Brush/Roll/Spray	1–60 min	Flammable	170°F	Pebble	79g/L
	Large, Int. Cylinder	42%	High solids for increased coverage. High tack general purpose adhesive.	Medium	Clear	Brush/Roll/Spray	1–60 min	Flammable	170°F	Pebble	73g/L
HoldFast 70	5 gal., 52 gal.	26%	Extremely versatile and very fast tacking. Unique wide web spray pattern with heavy body and low soak-in. Bonds polystyrene without degrading surface.	Medium	Clear	Brush/Roll/Spray	1–60 min	Flammable	190°F	Web	562g/L
	Large, Int. and Jumbo Cylinder	21%		Medium	Clear	Brush/Roll/Spray	1–60 min	Flammable	190°F	Web	562g/L
Super 77™	Aerosol	25%	Low soak-in for long lasting bond. High coverage and aggressive tack. Bonds quickly in 15 seconds.	Low	Clear	Spray	15 sec–15 min	Flammable	150°F	Mist	54%
	5 gal., 52 gal.	36%		Low	Clear	Brush/Roll/Spray	15 sec–15 min	Flammable	150°F	Mist	504g/L
	Large Cylinder	27%		Low	Clear	Spray	15 sec–15 min	Flammable	150°F	Mist	535g/L
Super 77™ CA Multi-Purpose (Low VOC)	Aerosol	19%	Aggressive tack. Quick bonding. Long bonding range.	Low	Clear	Spray	15 sec–30 min	Flammable	205°F	Mist	<25%
Fastbond™ Insulation Adhesive 49	5 gal. box, 5 gal., 50 gal., 100 gal., 255 gal.	55%	Fast tacking, high performance, pressure sensitive adhesive for lightweight materials. Low VOC and GREENGUARD Certified. UL MAGW2 component recognition.	Low	Clear	Brush/Roll/Spray	5 min.–8 hrs.	Non-flammable	—	Mist	2g/L
HEAVY DUTY											
Neoprene Contact 5	5 gal., 53 gal.	19%	High performance contact adhesive. Sprayable. Fast drying.	High	Light Yellow	Spray	10–60 min	Flammable	300°F	Web	687g/L
Neoprene Contact 10	1 qt., 1 gal., 5 gal., 54 gal.	23%	Brushable and rollable with higher coverage.	High	Light Yellow	Brush/Roll	10–60 min	Flammable	300°F	Web	589g/L
Heavy Duty 20	Aerosol	17%	Fast grab. Variable width spray pattern. Forms strong bonds to a variety of substrates.	High	Clear	Spray	1–30 min	Flammable	210°F	Web	52%
Hi-Strength 90	5 gal., 52 gal.	23%	High strength. High temperature resistance.	High	Clear	Brush/Roll/Spray	1–10 min	Flammable	250°F	Web	356g/L
	Large, Int and Jumbo Cylinder	13%	High strength. High temperature resistance.	High	Clear	Spray	1–10 min	Flammable	250°F	Web	586g/L
	Aerosol	13%	High strength. High temperature resistance.	High	Clear	Spray	1–10 min	Flammable	250°F	Web	54%

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Solvent and Water Based Adhesives



Product	Available Format	Solids Weight Percent (Approx.)	Key Characteristics	Adhesive Strength	Color	Application Method	Bonding Range (Two Surfaces)	Flammability	Heat Resistance (SAFT)	Spray Pattern	VOC Content
HEAVY DUTY											
Hi-Strength 90 CA (Low VOC)	Aerosol	23%	High strength.	High	Clear	Spray	1–30 min	Flammable	200°F	Web	<25%
Hi-Strength 92	5 gal., 54 gal.	34%	High strength. High temperature resistance. Versatile, high-tack adhesive.	High	Clear/ Red	Spray	1–20 min	Flammable	250+°F	Web	577g/L
	Large, Int and Jumbo Cylinder	23%	High strength. High temperature resistance. Versatile, high-tack adhesive.	High	Clear/ Red	Spray	1–20 min	Flammable	250+°F	Web	577g/L
Hi-Strength Postforming 94 CA (Low VOC)	5 gal., 54 gal.	34%	High solids for increased coverage. Unique non-telegraphing spray pattern with postformable strength. Low VOC, SCAQMD 1168 and LEED® Compliant.	High	Clear/ Red	Brush/Roll/ Spray	1–15 min	Flammable	210°F	Pebble	79g/L
	Large, Int	28%		High	Clear/ Red	Spray	1–15 min	Flammable	210°F	Pebble	79g/L
Fastbond™ Contact Adhesive 30NF	1 qt., 1 gal., 5 gal., 52 gal., 270 gal.	49%	Non-flammable water-based contact adhesive. Extremely high strength, high temperature resistant. Meets MIL-A-24179A, Type I, GREENGUARD Certified, SCAQMD 1168, LEED® Compliant.	High	Neutral/ Green	Brush/Roll/ Spray	30 min.– 4 hours	Non-flammable	300°F	Mist	37g/L
Fastbond™ Contact Adhesive 30H	52 gal., 270 gal.	48%	Long bonding range with high immediate bond strength. Economical high coverage. Low mist version of 30NF.	High	Green	Brush/Roll/ Spray	30 min.– 4 hours	Non-flammable	300°F	Mist	37g/L
Fastbond™ 2000NF	5 gal., 50 gal., 270 gal.	49%	Water dispersed, activated adhesive. Immediate bonding and handling strength without forced drying. GREENGUARD Certified.	High	Blue/ Light Orange/ Neutral	Co-Spray	2 min.– 2 hours	Non-flammable	300°F	Mist	37g/L
FOAM & FABRIC											
Foam & Fabric 24	Aerosol	17%	Aggressive tack. Foam-tearing strength. Variable width lace spray pattern.	Medium	Orange	Spray	30 sec.– 30 min.	Flammable	170°F	Web	53%
Foam Fast 74	Aerosol	22%	Extremely fast tack. Soft non-dimpling glue line. Immediate foam tearing strength.	Medium	Clear/ Orange	Spray	30 sec– 15 min	Flammable	170°F	Web	<55%
	52 gal.	36%	Extremely fast tack. Soft non-dimpling glue line. Immediate foam tearing strength.	Medium	Clear/ Orange	Brush/Roll/ Spray	30 sec– 15 min	Flammable	170°F	Web	352g/L
	Large, Int and Jumbo Cylinder	22%	Extremely fast tack. Soft non-dimpling glue line. Immediate foam tearing strength.	Medium	Clear/ Orange	Brush/Roll/ Spray	30 sec– 15 min	Flammable	170°F	Web	563g/L
Foam Fast 74 CA (Low VOC)	Aerosol	23%	Extremely fast tack. Soft non-dimpling glue line. Immediate foam tearing strength.	Medium	Clear/ Orange	Spray	30 sec– 15 min	Flammable	200°F	Web	<25%
Fastbond™ Foam Adhesive 100NF	1 gal., 5 gal., 52 gal., 100 gal., 255 gal.	47%	One-part, fast setting — foam and fabric adhesive. GREENGUARD Certified. Can be activated for immediate bonding.	Medium	Neutral/ Lavender	Spray	1–20 min	Non-flammable	—	Mist	0g/L

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Solvent and Water Based Adhesives

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Product	Available Format	Solids Weight Percent (Approx.)	Key Characteristics	Adhesive Strength	Color	Application Method	Bonding Range (Two Surfaces)	Flammability	Heat Resistance (SAFT)	Spray Pattern	VOC Content
SPECIALTY											
Pressure Sensitive 72	Aerosol	15%	Permanently tacky and repositionable. Long open time. Variable width lace spray pattern.	Medium	Blue	Spray	1 min.–8 hrs.	Flammable	170°F	Web	55%
Hi-Tack 76	Aerosol	13.5%	Fast tacking. One surface bonds. Variable width lace spray pattern.	High	Clear	Spray	1–60 min.	Flammable	230°F	Web	55%
Polystyrene 78	5 gal.	19%	Bonds polystyrene with no surface degradation. Fast grabbing and fast drying. Uniform spray pattern for fast and easy application.	Medium	Clear	Spray	1–15 min	Flammable	190°F	Web	566g/L
	Aerosol	19%		Medium	Clear	Spray	1–15 min	Flammable	190°F	Web	62%
Polystyrene 78ET	Large, Int and Jumbo Cylinder	17%	Bonds polystyrene with no surface degradation. Extended tack time for long working time. Uniform spray pattern for fast and easy application.	Medium	Clear/ Green	Spray	1–60 min	Flammable	200°F	Web	622g/L
Hi-Temp Polystyrene 78HT	Large, Int and Jumbo Cylinder	27%	Bonds polystyrene with no surface degradation. High temperature resistance. Can be used for roofing membrane attachment.	Medium	Blue	Spray	1–60 min	Flammable	230+°F	Web	611g/L
	Large, Int and Jumbo Cylinder	15%		Medium	Blue	Spray	1–60 min	Flammable	230+°F	Web	611g/L
Rubber and Vinyl 80	Aerosol	13%	High strength. High temperature resistance. Fast setting.	High	Yellow	Spray	3–30 min	Flammable	300+°F	Web	54%
847 High Performance Rubber & Gasket Adhesive	5 oz., 1 qt., 1 gal., 5 gal., 54 gal.	36%	Quick drying and flexible with fuel and oil resistance. Able to reactivate with heat and solvent. Curable with heat.	Medium	Brown	Brush/Flow	Up to 15 min	Flammable	—	Brush	0g/L
847H High Performance Rubber & Gasket Adhesive	5 gal., 52 gal.	51%	High viscosity. Able to reactivate with heat and solvent. Curable with heat.	Medium	Brown	Brush/Flow	Up to 10 min	Flammable	—	Brush	5g/L
1099 High Performance Plastic Adhesive	5 oz., 1 qt., 1 gal., 5 gal., 54 gal.	34%	Fast drying and heat curable. Resists weathering, water, oil, plasticizer migration and aliphatic fuels.	High	Light Tan	Brush/Flow	Up to 40 min	Flammable	—	Brush/ Flow	5g/L
1099L High Performance Plastic Adhesive	5 gal.	24%	Sprayable version of 1099. Fast drying and heat curable. Resists weathering, water, oil, plasticizer migration and aliphatic fuels.	High	Light Tan	Brush/Spray	Up to 20 min	Flammable	—	Brush/ Flow	443g/L
1300 High Performance Rubber & Gasket Adhesive	5 oz., 1 qt., 1 gal., 5 gal.	37%	High immediate strength. Fast-drying and heat resistant for rubber and metal. Meets MMM-A-121.	High	Yellow	Brush/Flow	Up to 12 min	Flammable	300°F	Brush/ Flow	667g/L
1300L High Performance Rubber & Gasket Adhesive	1 qt., 1 gal., 5 gal., 54 gal.	30%	Lower viscosity for spraying. Fast-drying and heat resistant for rubber and metal. Meets MMM-A-121.	High	Yellow	Brush/Spray	Up to 8 min	Flammable	300°F	Brush/ Spray	≤706g/L

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Solvent and Water Based Adhesives

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Product	Available Format	Solids Weight Percent (Approx.)	Key Characteristics	Adhesive Strength	Color	Application Method	Bonding Range (Two Surfaces)	Flammability	Heat Resistance (SAFT)	Spray Pattern	VOC Content
SPECIALTY											
1357 High Performance Contact Adhesive	5 oz., 1 pt., 1 qt., 1 gal., 5 gal., 54 gal. (Light Yellow only 5 gal. and 55 gal.)	25%	Rapid build up to a very high strength bond for metal. Resists heat and continuous load stress. Meets MMM-A-121 requirements.	High	Gray-Green/ Light Yellow	Brush/Spray	10–30 min	Flammable	300°F	Web	≤582g/L
1357L High Performance Contact Adhesive	5 gal., 54 gal.	18%	Low viscosity. Resists heat and continuous load stress.	High	Gray-Green	Spray	10–30 min	Flammable	300°F	Web	515g/L
2262 Plastic Adhesive	1 qt., 5 gal.	27%	Clear and non-staining. Resists plasticizer migration for bonding many flexible vinyls. Fast tack.	High	Clear	Brush/Flow	2–20 min	Flammable	—	Brush/ Flow	177g/L
4475 Industrial Plastic Adhesive	5 oz, 1 qt., 5 gal.	43%	Clear plastic adhesive. Fast drying. Strong environmental resistance.	Medium	Clear	Brush/Flow	1–10 min	Flammable	—	Brush/ Flow	600g/L
4491 Industrial Adhesive	345 gal., 5 gal., 54 gal.	24%	Securely bonds vinyl with resistance to plasticizer migration. Versatile plastic adhesive. Excellent environmental resistance.	High	Light Tan	Brush/Roll/ Spray	Up to 20 min	Flammable	—	Web	190g/L
4693 High Performance Industrial Plastic Adhesive	5 oz, 1 qt., 1 gal., 5 gal., 54 gal., (High viscosity only 5 oz)	26%	Excellent plastic adhesive. Long tack range. Water and heat resistant.	Medium	Clear	Brush/Spray	10–60 min	Flammable	—	Web	597g/L
4799 Industrial Adhesive	5 oz, 1 qt., 1 gal., 5 gal.	32%	Water and heat resistant. Dries rapidly. EPDM bonder.	Medium	Black	Brush/Trowel	1–10 min.	Flammable	—	Brush/ Trowel	628g/L
Fast Tack 1000NF	1 gal., 5 gal., 52 gal., 255 tote	49%	One-part immediate handling strength. Low overspray and high coverage. Bonds a wide variety of substrates with high temperature resistance .	High	Neutral/ Purple	Spray	1–10 min	Non-flammable	300°F	Mist	0g/L
Fastbond™ Spray Activator 1	1 qt., 1L spray bottle, 5 gal., 30 gal.	—	GREENGUARD Certified. Low VOC and LEED® Compliant. UL MAGW2 component recognition.	—	Clear	Spray	—	Non-flammable	—	Mist	0g/L

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

3M™ Adhesive Sealants

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The economical choice for high strength, long lasting elastomeric bonding and sealing.

3M Adhesive Sealants are suitable for bonding and sealing a wide variety of substrates including: glass, wood, composites and plastics.


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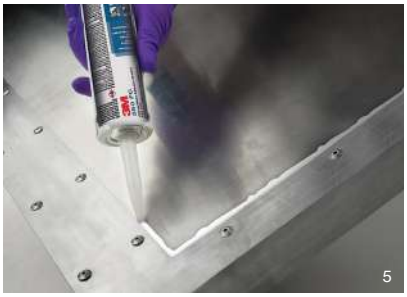
3M™ Polyurethane Sealant 740 moisture cures to a flexible seal/bond between exterior skins and metal framework and between wood flooring and metal framework. Tensile strength up to 580 psi is enough to replace mechanical fasteners in many situations.


358

3M™ Polyurethane Glass Adhesive Sealant 590 is a fast curing one-component, high viscosity polyurethane sealant for bonding windshields and other substrates requiring high strength. This adhesive sealant is certified for 1 Hour Drive Away Time.


367

3M™ Marine Adhesive Sealant 4000 UV Fast Cure cures completely in only 48 hours to a strong flexible bond/seal. Applications include: assembly above or below the waterline such as, hull and stern joints, hull to deck seams, marine hardware and more.


5

3M™ Polyurethane Sealant 560 is an all-purpose, single-component, moisture-curing, gap-filling polyurethane that creates permanently elastic seals and bonds in a wide variety of substrates.


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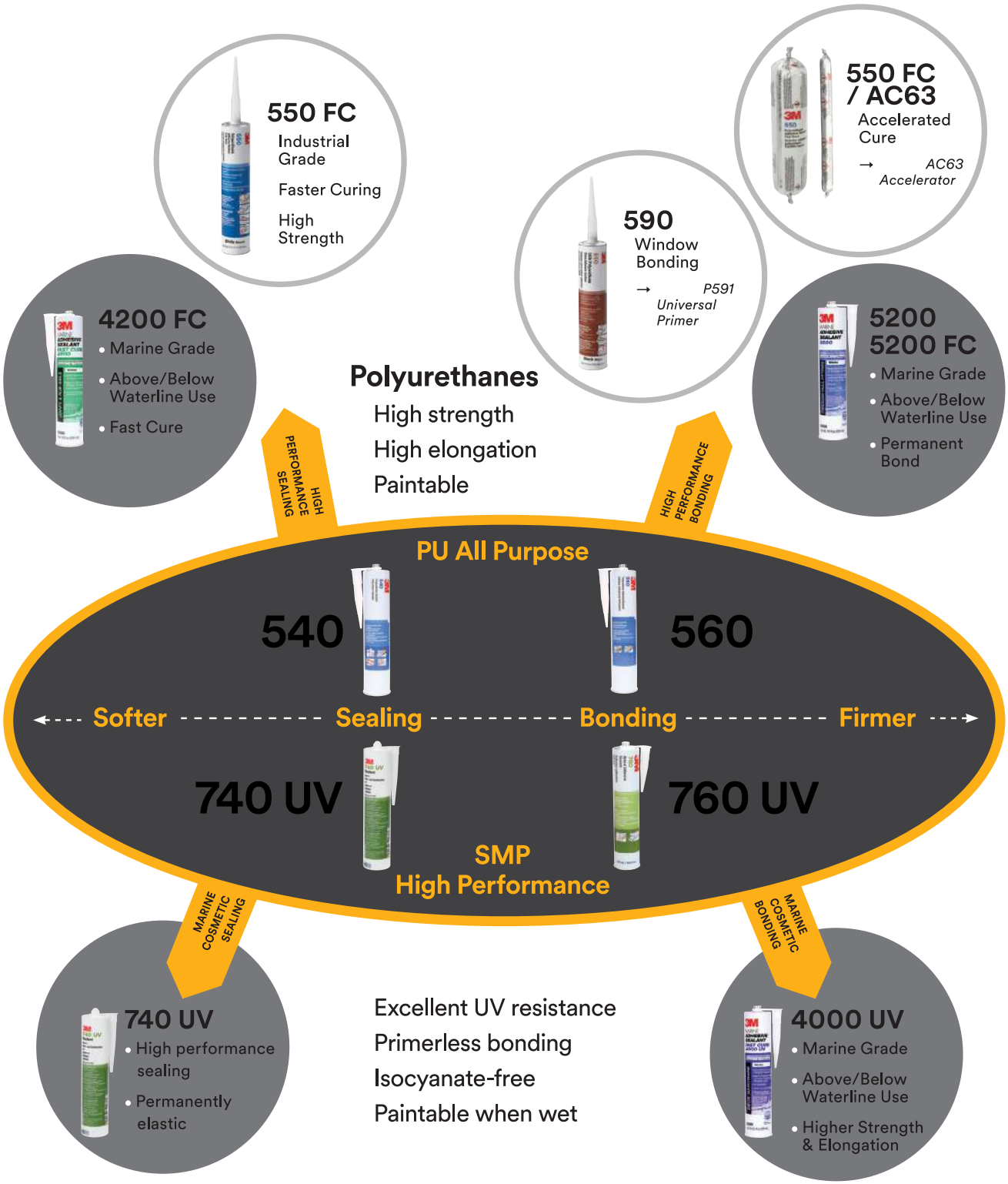
Seam sealing ductwork with 3M™ Polyurethane Sealant 540 will prevent air and dust intrusion. Its flexibility assists with vibration damping.


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3M™ Adhesive Sealant 740 UV has superior UV resistance that is ideal for sealing seams and filling gaps for exterior applications.

Durable, flexible bonding and sealing.

Find the right 3M™ Adhesive Sealant for your job.



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

3M™ Adhesive Sealants



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Proven performance in demanding applications

Product	Description	Tensile Strength psi (MPa)	Stress at 100% Strain psi (MPa)	Elongation (%)	Skin Time (min.)	Hardness (Shore A)	Color (Dry)	Application Method	Typical Handling Strength	Cure Rate (mm/ 24 hours)	Service Temp. Range °F (°C)
3M™ Polyurethane Adhesive Sealants (UV stable, Paintable once skin forms, Multi-purpose)											
525	All-around sealing; very flexible, excellent for concrete.	300 (2.1)	75 (0.5)	>800	90–150	25	Gray	Bead	N/A	3	-22 to 176 (-30 to 80)
540	Multi-purpose sealing.	350 (2.4	90 (0.6)	>700	60–90	40	White, Gray, Black	Bead	24 hrs.	3	-40 to 194 (-40 to 90)
550FC	Multi-purpose adhesive sealant.	375 (2.6	150 (1.0)	>500	50–90	45	White, Gray, Black	Bead	24 hrs.	4	-40 to 194 (-40 to 90)
550FC + AC63	Two component system for accelerated cure of 550.	275 (1.9)	125 (0.9)	>500	20	45	White, Gray, Black	Bead	20 min. full cure	20 min.	-40 to 194 (-40 to 90)
551	Properties similar to 550FC with longer open time.	450 (3.1)	200 (1.4)	>600	120–180	45	White	Bead	24 hrs.	4	-40 to 194 (-40 to 90)
560	High strength adhesive sealant.	380 (2.6)	200 (1.4)	>300	50–60	55	White, Gray, Black	Bead	24 hrs.	4	-40 to 194 (-40 to 90)
560 + AC63	Two component system for accelerated cure of 560.	350 (2.4)	140 (0.9)	>500	40	50	White, Gray, Black	Bead	3 hrs.	<24 hours full cure	-40 to 194 (-40 to 90)
590	Structural glass bonding; approved for windshield replacement.	1170 (8.3)	475 (3.4)	400	25–40	65	Black	Bead	3-hr. drive-away time (FMVSS 212)	3.5	-40 to 194 (-40 to 90)
3M™ Silane Modified Polymer (SMP) Adhesive Sealants (Excellent UV performance, Can be painted immediately, Isocyanate-free)											
730UV	Clear, cosmetic sealing with excellent UV resistance.	300 (2.1)	120 (0.8)	>200	25–30	30	Clear	Bead	24 hrs.	3.5	-40 to 194 (-40 to 90)
740UV	Multi-purpose sealing; excellent UV resistance, low VOC.	180 (1.2)	168 (1.2)	130	40–60	30	White, Gray, Black	Bead	24 hrs.	3.5	-40 to 194 (-40 to 90)
760UV	Multi-purpose bonding; excellent UV resistance, low VOC.	440 (3.0)	280 (1.9)	180	10–30	55	White, Gray, Black	Bead	24 hrs.	3.5	-40 to 212 (-40 to 100)

Product	Description	Tensile Strength psi (MPa)	Stress at 100% Strain psi (MPa)	Elongation (%)	Skin Time (min)	Hardness (Shore A)	Color (Dry)	Application Method	Typical Handling Strength	Cure Rate (mm/ 24 hrs.)	Service Temp. Range °F (°C)
3M™ Weatherban™ Sealants											
5354	High tack butyl tape for sealing; easy to compress, resists cold flow.	N/A	N/A	N/A	N/A	60	Black	Tape	N/A	N/A	N/A
PF5422	Thread reinforced butyl tape. Respositionable without clean up. Weather resistant.	125 (0.9)	25 (0.2)	400	30	N/A	Black	Tape	N/A	N/A	N/A
3M™ Specialty Sealant and Adhesive Products											
800	Solvent-based rubber dries to flexible seal. Solvent resistant.	100 (0.7)	70 (0.5)	1200	10	N/A	Red-Brown	Bead	24 hrs.	0.8	-65 to 200 (-54 to 93)
606	Weatherban™ Acrylic Sealant; Multipurpose indoor and outdoor sealing.	260 (1.8)	153 (1.0)	146	30	60	White	Bead	N/A	1.5	-28 to 180 (-33 to 82)
2084	Scotch-Seal™ solvent-based rubber industrial sealant. Metal sealant; aluminum color. Oil and fuel resistant.	700 (4.8)	475 (3.3)	800	5	30	Aluminum	Bead	24 hrs.	0.7	-65 to 200 (-54 to 93)
5010	Moisture-curing polyurethane. Excellent wood bonder.	275 (19)	N/A	N/A	3–5	N/A	Cream	Bead	24 hrs.	N/A	-22 to 212 (-30 to 100)

3M™ Adhesive Sealants



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Marine sealants

Product	Description	Tensile Strength psi (MPa)	Stress at 100% Strain psi (MPa)	Elongation (%)	Skin Time (min.)	Hardness (Shore A)	Color (Dry)	Application Method	Typical Handling Strength	Cure Rate (mm/ 24 hrs.)	Service Temp. Range °F (°C)
3M™ Polyurethane Adhesive Sealants (UV stable, Paintable once skin forms, Multi-purpose)											
5200	Polyurethane. Industry standard for over 50 years. Permanent bonding of gelcoat, fiberglass. Long working time. Bonds/seals above and below waterline.	650 (4.5)	450 (3.1)	>230	>48 hrs.	70	White, Black, Tan, Mahogany	Bead	>48 hrs.	<1	-40 to 190 (-40 to 88)
5200 FC	Polyurethane. Fast cure version of 5200. Up to 1 hour open time. Permanent bonding. Bonds/seals above and below waterline.	600 (4.1)	200 (1.4)	>350	60–120	60	White	Bead	48 hrs.	3	-40 to 190 (-40 to 88)
4200 FC	Polyurethane. Medium strength bonding and water tight sealing; can be removed after prolonged use. Bonds/ seals above and below waterline.	220 (1.5)	180 (1.2)	>275	50–90	40	White, Black	Bead	24 hrs.	3	-40 to 194 (-40 to 90)
3M™ Silane Modified Polymer (SMP) Adhesive Sealants (Excellent UV performance, Can be painted immediately, Isocyanate-free)											
4000 UV	SMP. High perf ormance, medium strength bonding and water tight sealing; excellent UV resistance. Bonds/seals above and below waterline.	450 (3.1)	210 (1.4)	>300	15–30	40	White, Black	Bead	24 hrs.	3.5	-40 to 194 (-40 to 90)
3M™ Silicone Adhesive Sealants (Excellent UV performance, Clear/White Marine Silicone)											
Marine Silicone	High quality, marine grade, non-yellowing silicone. Mildew resistant, non-sagging. Removable. Bonds/seals above waterline.	220 (1.5)	65 (0.5)	>350	5–10	20	White, Clear	Bead	N/A	3	-40 to 190 (-40 to 88)

Primers and adhesion promoters

Product	Description	Color	Viscosity	VOC g/L	
P591	All purpose primer	Black	Low	613	Polyurethane
P592	Metal primer	Clear	Low	790	Silane
AP596	Adhesion promoter cleaner	Clear	Low	798	Silane

Applicators

Type	Manual	Pneumatic	Manual	Manual	Pneumatic	Pneumatic
310mL Cartridges	310		400M	600M		34A
350mL Sausage Packs		400 A-2K	400M	600M	600A	34A
400mL Sausage Packs			400M	600M	600A	34A
600mL Sausage Packs				600M	600A	

3M™ Adhesive Sealants

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Marine sealants comparison guide


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Features	4000 UV	4200 FC	5200	5200 FC	Marine Grade Silicone	590
Sealing	Yes	Yes	Yes	Yes	Yes	Yes
Bonding	Excellent	Good	Excellent*	Excellent	Poor	Good
Strength	Medium	Medium	High	High	Low	N/A
Chemical base	SMP	Polyurethane	Polyurethane	Polyurethane	Silicone	Polyurethane
Curing time	24 hrs.	24 hrs.	5–7 days	24 hrs.	24 hrs.	24 hrs.
Tack free time (70°F/21°C @ 50% RH)	30 min.	2 hrs.	24–48 hrs.	1 hr.	10 min.	30 min.
Cure rate (mm per 24 hours)	>3.5	>3	<1	3	3	3

Good Best Better

Applications	4000 UV	4200 FC	5200	5200 FC	Marine Grade Silicone	590
Deck to hull bonding	Better	Better	Best	Best		
General purpose sealing and bonding	Best	Better	Best	Best	Above Waterline Only	
Bedding	Best	Best	Better	Better	Good	
Keel sealing	Good	Good	Best*	Best		
General interior sealing	Better	Better			Best	
Sealing wood to deck or superstructure		Better	Best	Best		
Sanitary sealing					Best	
Plastic acrylic window sealing	Best					Best
Wood deck caulking Not recommended for teak deck caulking.	Better	Better	Best	Best	Good	
Bonding anti-slip plates in engine rooms	Good		Best	Best		
Sealing exterior strong UV radiation zones	Best**	Good	Good		Above Waterline Only	
Bonding decorative panels (vertical); work surfaces (horizontal); deck hardware (deck/fittings); wood to wood	Better	Better	Best	Best		
Bonding thru hull; hatches and port lights; fiberglass to fiberglass	Best	Better	Best	Best		

*Bonding to bare aluminum is not recommended for applications with continuous water immersion.
**4000UV Black is the only recommended product for this application.

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3M™ Concrete Repair Products

Fast, Convenient Crack and Spall Repair, Expansion Joints, Custom Threading and Anchoring, and More

3M™ Concrete Repair Products offer a complete line of conveniently packaged and dispensed adhesives/sealants for every job from cracks and joints to spalls and more.

Repairs are long lasting with strong, flexible bonds that resist weathering, expansion and contraction.

Fast setting allows you and your customers to drive on repaired surfaces in as few as five minutes. You can choose non-sag or self-leveling formulations for repairs on both vertical and horizontal surfaces. Non-sag formulation facilitates step and ledge repair.



3M™ Concrete Repair 600 self-leveling flows smoothly into cleaned cracks and gaps and hardens in as little as 5 minutes.



50mL and 12 fl oz. duo-pak cartridges, 5-gallon pails and 55 gallon drums are available to meet your production volume requirements. Nozzle automatically and precisely meters, mixes, and dispenses two-part urethane formulation. Apply material precisely where needed to conserve material.



Make fast work of lengthy expansion or control joints and other larger jobs with the heavy-duty manual applicator and 12 fl oz. duo-pak cartridges.

3M concrete repair formulations harden to any depth without cracking for custom threading and anchoring.

Product (Color)	Key Features	Mix Ratio (Vol.) B:A	Approx. Viscosity at 75°F (24°C) (cP)	Approx. Mixed Work Life at 75°F (24°C)	Approx. Time to Handling Strength at 75°F (24°C)	Floating Roller Peel PLI (N/cm) at 75°F (24°C)	Overlap Shear: psi (MPa)			Size	UPC	Stock #
							-40°F (-40°C)	75°F (24°C)	180°F (82°C)			
* **DP600 600** (Gray)	Concrete repair, Self-leveling	1:1	6,000	1 min	4 min	20 (36)	3,200 (22)	2,300 (16)	700 (5)	50mL 400mL 8.4 fl oz. 5 gal. pail A 5 gal. pail B	00-021200-56602-8 00-051111-98303-4 00-021200-96596-8 00-021200-96575-3 00-021200-96574-6	62-2649-5030-4 62-2649-3530-5 62-2649-1233-8 62-2749-8535-7 62-2649-8535-9
DP600NS 600NS (Gray)	Concrete repair, Non-sag	1:1	Paste	1 min	4 min	8 (14)	2,700 (19)	2,300 (16)	700 (5)	50mL 400mL	00-021200-56606-6 00-051111-98312-6	62-2652-5030-8 62-2652-3530-9
DP5106 (Gray)	Helps relieve stress in large segments of concrete floors	1:1	34,000	4 min	40 min	N/A	N/A	1,100 (8)	N/A	400mL 5 gal. pail A 5 gal. pail B	00-051111-98297-6 00-021200-96584-5 00-021200-96583-8	62-3527-3530-2 62-3527-9535-4 62-3527-8535-6

Accessories

Product	Size	Description
Manual Dispenser 98073	400mL	Heavy-duty applicator.
Pneumatic Dispenser 87979	400mL	Applicator for high volume jobs.
Mix Tip – Higher Throughput 97331	400mL	General use tip.
Mix Tip – Longer Reach 87982	400mL	Alternative nozzle with longer reach.
Mixing Nozzle (threaded) 53382	8.4 fl oz.	Mixes Concrete Repair 600.

* After Key Products, consider these.

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Notes:

Convenience meets extreme bonding power.

Powerful Bonding Solutions

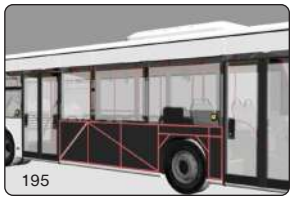
Help your customers successfully bond a variety of materials with strength and speed for permanent, structural and repositionable applications. Our double-sided bonding tapes provide shear strength, conformability, surface adhesion and temperature resistance.

Dream. Design. Deliver.

Since 1980, 3M™ VHB™ Tape has offered unlimited design and application possibilities. By working with 3M's engineering experts, product designers know they can count on this reliable solution. Lab-tested and proven in the real world, 3M™ VHB™ Tape eliminates rivets, bolts, screws and welds.

- Durability for long-term performance indoors and out
- Productivity through application ease and versatility
- Instant bonding
- Smooth, invisible appearance
- Viscoelastic properties absorb shock and distribute stress evenly over the bond line
- Bond dissimilar materials with confidence





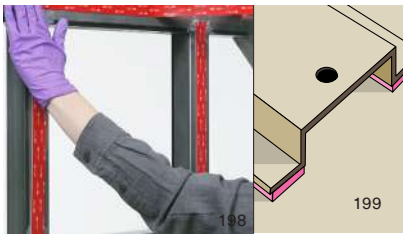
3M™ VHB™ Tape bonds panels to a bus on contact. The tape seals against water, moisture and more. Bonding power eliminates mechanical fasteners for a smooth, clean surface. Viscoelastic properties help absorb shock and vibration for bond reliability.



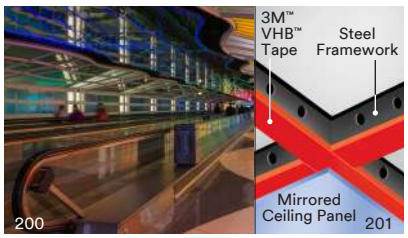
To join a variety of materials for high impact visual combinations throughout a refrigerator, 3M™ VHB™ Tape bonds painted and unpainted metal, HSE and LSE plastics, ceramics and more.



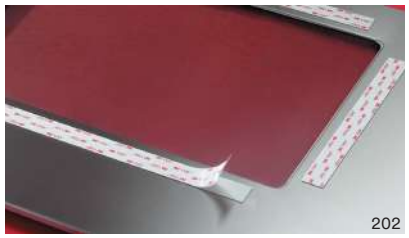
For assembly efficiency, die-cut pieces of 3M™ VHB™ Tape bond components on a laptop.



3M™ VHB™ Tapes bond panel stiffeners on contact to pre-painted metal cabinetry. Unlike welding, applying the tape does not damage the finish.



Mirrored ceiling panels are held in place with 3M™ VHB™ Tapes rather than screws. This helps maintain a clean, smooth appearance without distorting the reflective surfaces.



For a heat resistant bond, 3M™ VHB™ Tape GPH Series bonds and seals stainless steel trim to the glass oven door with strength enough to replace mechanical fasteners. Door surface is smooth and attractive.



With high holding power and long-term reliability, 3M™ VHB™ Tape bonds dimensional letters to a painted wall for indoor or outdoor signage.

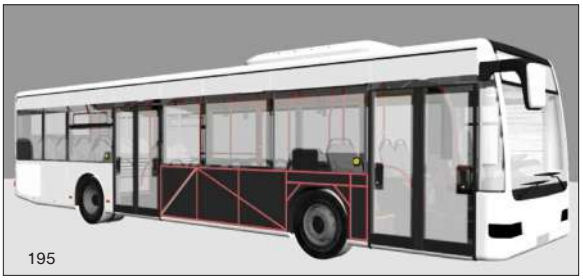
3M™ VHB™ Tapes — Typical Applications

3M™ VHB™ Tape is a proven high-strength alternative to screws, rivets, welds and other forms of traditional fastening methods. While a screw or a rivet can join two substrates at a single point, 3M™ VHB™ Tape permanently adheres one substrate to another and spreads the stress load across the entire length of the joint. The most common applications for 3M™ VHB™ Tape are:

- Reduce weight and solve dynamic force challenges
- Create a clean appearance



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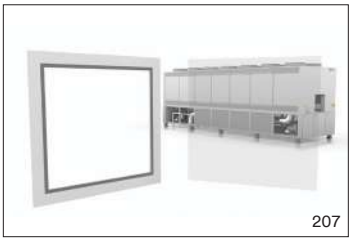

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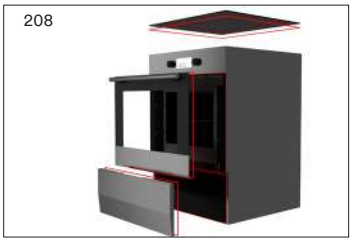
- Exceptional vibration and corrosion resistance
- Deliver unique designs


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- Securely seal dissimilar materials
- Enhance productivity
- Create innovative designs


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- Unlimited opportunities to enhance products
- Flexibility of production and design


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3M™ VHB™ Tapes

Product	Tape Thickness w/o Liner mils (mm)	Liner Type	Description	Adhesive Type	Temp. Resistance Min Hr	Temp. Resistance Days Weeks	Solvent Resistance	Relative Adhesion HSE	Relative Adhesion LSE	Application Ideas
4941 Tape Family										
4926	15 (0.4)	A	Gray, closed-cell acrylic foam carrier. Conformable. Good adhesion to many painted metals. Plasticizer resistant. UL 746C.	Multi-purpose Acrylic	300°F (149°C)	200°F (93°C)	High	High	Med	Bond and seal polycarbonate lens over LCD. Bond and seal plastic windows to pre-painted control panels/switch gear. Mount vinyl wiring ducts and conduit channels. Seam vinyl banners.
4936	25 (0.64)	A								
4936F	25 (0.64)	F								
4941	45 (1.1)	A								
4941F	45 (1.1)	D								
4956	62 (1.6)	A								
4956F	62 (1.6)	F								
4991	90 (2.3)	F			250°F (121°C)	200°F (93°C)	High	High	Med	
4991B	90 (2.3)	F	Black version of 4991.	Multi-purpose Acrylic	250°F (121°C)	200°F (93°C)	High	High	Med	Bond and seal polycarbonate lens over LCD. Bond and seal plastic windows to pre-painted control panels/switch gear. Mount vinyl wiring ducts and conduit channels. Seam vinyl banners.
4919F	25 (0.64)	F	Black version of 4936F.	Multi-purpose Acrylic	300°F (149°C)	200°F (93°C)	High	High	Med	
4947F	45 (1.1)	F	Black version of 4941F.							
4979F	62 (1.6)	F	Black version of 4956F.							
5952 Tape Family										
5906	6 (0.15)	G	Black, closed-cell acrylic foam carrier. Good adhesion to many painted surfaces, including powder coated paint.	Modified Acrylic	300°F (149°C)	250°F (121°C)	High	High	Med	Bond and seal polycarbonate lens over LCD. Lens and touch panel bonding. Logo attachment. P.O.P. and display construction.
5907	8 (0.2)	G								
5908	10 (0.25)	G								
5909	12 (0.3)	G								
5915	16 (0.4)	F	Black, closed-cell acrylic foam carrier. Good adhesion to many painted surfaces, including powder coated paint. UL 746C.	Modified Acrylic	300°F (149°C)	250°F (121°C)	High	High	Med	Bonds to a variety of plastics and paint systems. Bond architectural signs to frames. Attach trim and extrusions. Hat channels and stiffeners.
5915P	16 (0.4)	E								
5925	25 (0.6)	F								
5925P	25 (0.6)	E								
5930	32 (0.8)	F								
5930P	32 (0.8)	E								
5952	45 (1.1)	F								
5952P	45 (1.1)	E								
5962	62 (1.6)	F								
5962P	62 (1.6)	E								
5958FR	40 (1)	F	Meets FAR 25.853 (a) 12 sec vertical burn Appendix F, Part 1 (a) (ii)	Modified Acrylic	300°F (149°C)	200°F (93°C)	High	High	Med	Overhead stow bins, signage, kick plates, galley modules, plastic and metal decorative trim, ceiling tile stiffeners, mirror mounting, air duct spuds, floor and wall panel attachment and clip attachment.
RP+ Tape Family										
RP+040GP	16 (0.4)	A	Gray, closed-cell acrylic foam carrier. Conformable. Good adhesion to many painted metals.	Multi-purpose Acrylic	450°F (230°C)	250°F (121°C)	High	High	Med	Panel bonding, stiffener attachment and trim attachment.
RP+040GF	16 (0.4)	F								
RP+060GP	25 (0.6)	A								
RP+060GF	25 (0.6)	F								
RP+080GP	32 (0.8)	A								
RP+080GF	32 (0.8)	F								
RP+110GP	45 (1.1)	A								
RP+110GF	45 (1.1)	F								
RP+160GP	62 (1.6)	A								

Liner Types:
A – 3 mil 54# Densified Kraft Paper
B – 5 mil Clear Polyethylene Film
C – 2 mil Polyester Film
D – 5 mil Red Polyethylene Film
E – 4 mil 58# Polycoated Kraft Paper
F – 5 mil Red Printed Polyethylene Film
G – 3 mil Clear Polyethylene Film
H – 5 mil Green PE Film

Relative Adhesion:
HSE – High Surface Energy
LSE – Low Surface Energy

Multi-purpose Acrylic: Bonds to a wide range of materials including metals, glass, and high and medium surface energy plastics and paints. Resists migration of plasticizers in vinyl substrates.
Modified Acrylic: Bonds to medium low surface energy paints and plastics, including many powder coated paints in addition to the substrates listed with the multi-purpose acrylic adhesive (except plasticized vinyl).
General Purpose Acrylic: Bonds to most higher surface energy substrates including metal, glass and high surface energy plastics.
Low Temperature Acrylic: Bonds down to 32°F (0°C) compared to 50°F (10°C) for most acrylic adhesives. Bonds most high surface energy substrates including metal, glass and high surface energy plastics.
Low Surface Energy: High performance synthetic adhesive bonds to many lower surface energy substrates, including many plastics and powder coated paints, plus smooth general purpose substrates.

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

3M™ VHB™ Tapes

Product	Tape Thickness w/o Liner mils (mm)	Liner Type	Description	Adhesive Type	Temp. Resistance		Solvent Resistance	Relative Adhesion		Application Ideas
					Min Hr	Days Weeks		HSE	LSE	
RP+ Tape Family (continued)										
RP+160GF	62 (1.6)	F	Gray, closed-cell acrylic foam carrier. Conformable. Good adhesion to many painted metals.	Multi-purpose Acrylic	450°F (230°C)	250°F (121°C)	High	High	Med	Panel bonding, stiffener attachment and trim attachment.
RP+230GP	90 (2.3)	A								
RP+040GF	90 (2.3)	F								
LSE Tape Family										
LSE-060WF	25 (0.6)	F	Specifically for LSE substrates such as polypropylene (PP), thermoplastic elastomers (TPE) and thermoplastic olefins (TPO).	LSE Acrylic	300°F (150°C)	200°F (93°C)	High	High	High	Made to live outdoors. Resists hot, cold and cycling temperature, UV light, moisture and solvents. Seals against environmental conditions. Low-temperature bonding with high initial tack at low temperatures on frost-free surfaces down to 0°C.
LSE-110WF	45 (1.10)	F								
LSE-160WF	62 (1.6)	F								
GPH Tape Family										
GPH-060GF	25 (0.6)	F	Superior high-temperature performance for powder coat or liquid paint processes and multi material bonding.	High Temp Acrylic	450°F (230°C)	300°F (150°C	High	High	Medium	High temperature resistance allows tape to reduce the number of "touches," leading to a more streamlined manufacturing process.
GPH-110GF	45 (1.10)	F								
GPH-160GF	62 (1.6)	F								
4950 Tape Family										
4914	10 (0.25)	A	Closed-cell acrylic foam carrier. UL 746C.	General Purpose Acrylic	300°F (149°C)	200°F (93°C)	High	High	Low	Attach stiffeners in air conditioners, office furniture and telecommunications equipment.
4920	15 (0.4)	A								
4929	25 (0.6)	C								
4930	45 (1.1)	A								
4930F	45 (1.1)	D								
4949	45 (1.1)	C								
4950	45 (1.1)	A								
4955	80 (2)	C	Closed-cell acrylic foam carrier. UL 746C.	General Purpose Acrylic	400°F (204°C)	300°F (149°C)	High	High	Low	Attach stiffeners in air conditioners, office furniture and telecommunications equipment.
4959	120 (3)	C								
4959F	120 (3)	D								
4910 Tape Family										
4905	20 (0.5)	F	Clear, acrylic construction for joining transparent material.	General Purpose Acrylic	300°F (149°C)	200°F (93°C)	High	High	Low	Mount backlit translucent signs. Edge-bond resin filled glass.
4910	40 (1)	F								
4611 Tape Family										
4646	25 (0.6)	D	Dark gray, closed-cell acrylic foam carrier. High temperature resistance. UL 746C.	General Purpose Acrylic	450°F (232°C)	300°F (149°C)	High	High	Low	Pre-powder coat paint applications. Hat channels and stiffeners.
4611	45 (1.1)	D								
4655	62 (1.6)	D								

Liner Types:
A – 3 mil 54# Densified Kraft Paper
B – 5 mil Clear Polyethylene Film
C – 2 mil Polyester Film
D – 5 mil Red Polyethylene Film
E – 4 mil 58# Polycoated Kraft Paper
F – 5 mil Red Printed Polyethylene Film
G – 3 mil Clear Polyethylene Film
H – 5 mil Green PE Film

Relative Adhesion:
HSE – High Surface Energy
LSE – Low Surface Energy

Multi-purpose Acrylic: Bonds to a wide range of materials including metals, glass, and high and medium surface energy plastics and paints. Resists migration of plasticizers in vinyl substrates.
Modified Acrylic: Bonds to medium low surface energy paints and plastics, including many powder coated paints in addition to the substrates listed with the multi-purpose acrylic adhesive (except plasticized vinyl).
General Purpose Acrylic: Bonds to most higher surface energy substrates including metal, glass and high surface energy plastics.
Low Temperature Acrylic: Bonds down to 32°F (0°C) compared to 50°F (10°C) for most acrylic adhesives. Bonds most high surface energy substrates including metal, glass and high surface energy plastics.
Low Surface Energy: High performance synthetic adhesive bonds to many lower surface energy substrates, including many plastics and powder coated paints, plus smooth general purpose substrates.

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3M™ VHB™ Thin Foam Tapes

With a uniquely thin form, 3M™ VHB™ Thin Foam Tapes go where thicker foam tapes simply can't, while still providing the same great benefits of regular 3M™ VHB™ Tapes. Common applications include LCD, lens and touch panel bonding, logo attachment and point of purchase displays.


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Product	Tape Thickness w/o Liner mils (mm)	Liner Type	Description	Adhesive Type	Temp. Resistance		Solvent Resistance	Relative Adhesion		Application Ideas
					Min Hr	Days Weeks		HSE	LSE	
5900 Tape Family										
5906	6 (0.15)	G	Black, closed-cell acrylic foam carrier. Good adhesion to many painted surfaces, including powder coated paint.	Modified Acrylic	300°F (149°C)	250°F (121°C)	High	High	Med	LCD, lens and touch panel bonding, logo attachment, P.O.P. and display construction.
5907	8 (0.2)	G								
5908	10 (0.25)	G								
5909	12 (0.3)	G								
4914 Tape Family										
4914-015	6 (0.15)	A	White, closed-cell acrylic foam carrier.	General Purpose	300°F (149°C)	200°F (93°C)	High	High	Low	LCD, lens and touch panel bonding, logo attachment, P.O.P. and display construction.
4914-020	8 (0.2)	A								
4914	10 (0.25)	A	White, closed-cell acrylic foam carrier. All-purpose adhesive. UL 746C.							

See key on page 74.

3M™ VHB™ Tape for Commercial Vehicles and Trailers

Built Tough with Smooth Sides to Look Good for the Long Haul

For durability and smooth sides on trailers, trucks, buses, and other commercial vehicles, 3M™ VHB™ Tapes are proven to go the distance.

- 3M™ VHB™ Tape is up to 41% quieter than mechanical fasteners with up to 30% less vibration at highway speeds
- Surfaces of truck panels are aesthetically smooth and graphics apply easily
- Permanently bonds and seals

3M™ VHB™ Tapes for Commercial Vehicles and Trailers are only available through authorized distributors and a warranty may be available on pre-approved applications.


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Mechanically fastened at 36,000 miles — leaks at less than 75 psi.


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Smooth sides with 3M™ VHB™ Tape at 100,000 miles — no leaks at 3200 psi.

Product	Tape Thickness w/o Liner mils (mm)	Liner Type	Description	Adhesive Type	Temp. Resistance		Solvent Resistance	Application Ideas
					Min Hr	Days Weeks		
CV45F	45 (1.1)	D	Gray, closed-cell acrylic foam carrier. Conformable. Good adhesion to many painted metals.	Multi-purpose Acrylic	300°F (149°C)	200°F (93°C)	High	Bond overlap seams on vehicle side panels.
CV62F	62 (1.6)	F						Bond vehicle side panels to posts.

See key on page 74.

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

3M™ VHB™ Structural Glazing Tapes

Application Ease and Immediate Handling Strength for Increased Productivity

3M™ VHB™ Structural Glazing Tapes have been proven in thousands of buildings worldwide since 1990 as an alternative to structural silicone and spacer tapes/gaskets.

Immediate handling strength results in faster throughput and delivery. No mixing or curing simplifies manufacturing.

Proven technology with a 30+ year history in construction, an application warranty* is available for qualifying applications in select countries.



Product	Tape Thickness w/o Liner mils (mm)	Liner Type	Description	Adhesive Type	Temp. Resistance		Relative Adhesion		Solvent Resistance
					Min Hr+	Days Weeks	HSE	LSE	
G23F	90 (2.3)	F	Gray, closed-cell acrylic foam carrier. Conformable.	Multi-purpose Acrylic	300°F (149°C)	200°F (93°C)	High	Med	High
B23F			Black, closed-cell acrylic foam carrier. Conformable.						

*3M™ VHB™ Structural Glazing Tapes are only available for structural glazing applications approved by 3M Technical Service through select distributors.
See key on page 74.

3M™ VHB™ Architectural Panel Tapes

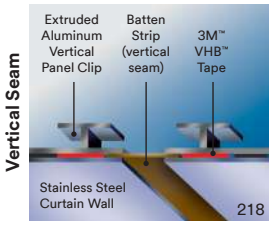
Proven for More Than 30 Years in Applications from Denver to Singapore

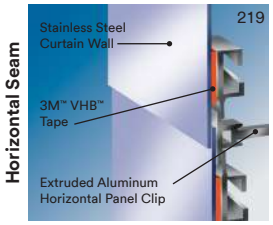
For quick permanent assembly of cladding and curtain wall panels, 3M™ VHB™ Tapes provide an ideal combination of durability, performance and application ease.

Bond to a wide range of architectural panel substrates including dissimilar materials. With design flexibility, create visibly stunning facades.

Application warranty available for qualifying applications in select countries.







Product	Tape Thickness w/o Liner mils (mm)	Liner Type	Description	Adhesive Type	Temp. Resistance		Solvent Resistance	Relative Adhesion	
					Min Hr	Days Weeks		HSE	LSE
G11F	45 (1.1)	Red, Printed Film	Gray, closed-cell acrylic foam carrier. Conformable.	Multi-purpose Acrylic	300°F (149°C)	200°F (93°C)	Med	High	Med
B11F	45 (1.1)		Black, closed-cell acrylic foam carrier. Conformable.						
G16F	62 (1.6)		Gray, closed-cell acrylic foam carrier. Conformable.						
B16F	62 (1.6)		Black, closed-cell acrylic foam carrier. Conformable.						
G90F	90 (2.3)		Gray, closed-cell acrylic foam carrier. Conformable.		250°F (121°C)	200°F (93°C)	Med	High	Med
B90F	90 (2.3)		Black, closed-cell acrylic foam carrier. Conformable.						

See key on page 74.

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

3M™ VHB™ Tape for Windows and Doors

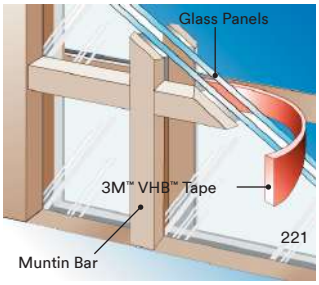
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Attach Wood, Vinyl, Composite or Painted Metal Muntin Bars to Windows

These high strength tapes conform to glass with good wet-out and resistance to UV light, thermal expansion and contraction, solvents and cleaners. Tapes below are available only for approved window and door customers. Pre-approved applications may be eligible for a 10-year warranty.

See 3M™ Primers on page 79.





Product	Tape Thickness w/o Liner mils (mm)	Liner Type	Description	Adhesive Type	Temp. Resistance		Solvent Resistance	Relative Adhesion	
					Min Hr	Days Weeks		HSE	LSE
G45P	45 (1.1)	A	Gray, closed-cell acrylic foam carrier. Conformable.	Multi-purpose Adhesive	300°F (149°C)	200°F (93°C)	High	High	Med
G45F	45 (1.1)	D	Gray, closed-cell acrylic foam carrier. Conformable.						
B45F	45 (1.1)	F	Black, closed-cell acrylic foam carrier. Conformable.						

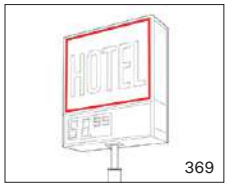
See key on page 74.

3M™ VHB™ Tape for Sign and Display

Reliable and Immediate Bonding

For indoor and outdoor signage, 3M™ VHB™ Tapes hold immediately without the work of screws and the mess and curing time of liquid adhesives.

- Bond metals, plastics, glass, foam board and more
- Invisible fastening for smooth, attractive surfaces





3M™ VHB™ Tape provides durable bonding in outdoor applications.



Clear 3M™ VHB™ Tape permanently bonds aluminum letters to glass and appears almost invisible from behind the pane.

Product	Tape Thickness w/o Liner mils (mm)	Liner Type	Description	Adhesive Type	Temp. Resistance		Solvent Resistance	Relative Adhesion		Application Ideas
					Min Hr	Days Weeks		HSE	LSE	
5952	45 (1.1)	F	Black or white, closed-cell acrylic foam carrier. Good adhesion to many painted surfaces, including powder coated paint. UL 746C.	Modified Acrylic	300°F (149°C)	250°F (121°C)	High	High	Med	Bond and seal metal and plastic through a sign.
5962	62 (1.6)	F								
LSE-060WF	25 (0.6)	F	Specifically for LSE substrates such as polypropylene (PP), thermoplastic elastomers (TPE) and thermoplastic olefins (TPO).	LSE Acrylic	300°F (150°C)	200°F (93°C)	High	High	High	Outdoor use. Seals against environmental conditions.
LSE-110WF	45 (1.10)	F								
LSE-160WF	62 (1.6)	F								
4910	40 (1)	F	Clear, acrylic construction for joining transparent material.	General Purpose	300°F (149°C)	200°F (93°C)	High	High	Low	Bond unpainted metal.
4941	45 (1.1)	A	Gray, closed-cell acrylic foam carrier. Good adhesion to many painted metals. Plasticizer resistant. UL 746C.	Multi-purpose Acrylic	300°F (149°C)	200°F (93°C)	High	High	Med	Bond flexible vinyl banners.
4956	62 (1.6)	A								

See key on page 74.

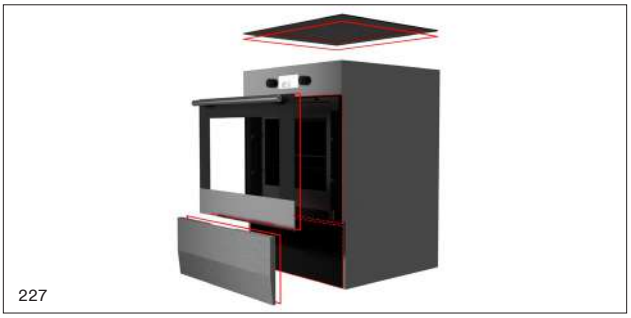
Note: The technical information and data on these pages should be considered representative or typical only and should not be used for specification purposes.

3M™ VHB™ Tape for Appliances

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3M™ VHB™ Tape is the Ultimate Solution for Appliance Design Applications

From the kitchen to the laundry room, trust in 3M™ VHB™ Tape to expand design freedom in everything from how the side panels hold together to the way a brand's logo is displayed. Thanks to the viscoelastic properties of 3M™ VHB™ Tape, OEM consumer and commercial design engineers and manufacturers have access to a new realm of opportunities for beautiful, more efficient household appliance designs.



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Product	Tape Thickness w/o Liner mils (mm)	Liner Type	Description	Adhesive Type	Temp. Resistance		Solvent Resistance	Relative Adhesion		Application Ideas
					Min Hr	Days Weeks		HSE	LSE	
4941	45 (1.1)	A	Gray, closed-cell acrylic foam carrier.	Multi-purpose Acrylic	300°F (149°C)	200°F (93°C)	High	High	Med	Logo attachment, overlay attachment and control panel assembly.
5952	45 (1.1)	F	Black, closed-cell acrylic foam carrier.	Modified Acrylic	300°F (149°C)	250°F (121°C)	High	High	Med	
RP+110GP	45 (1.1)	A	Gray, closed-cell acrylic foam carrier.	Multi-purpose Acrylic	450°F (230°C)	250°F (121°C)	High	High	Med	

See key on page 74.

3M™ VHB™ Tape for Electronics

Electronic designs are becoming lighter, thinner and smaller every day. Bulky mechanical systems can be replaced with the incredible, strong, long-lasting viscoelastic bond of 3M™ VHB™ Tape. Expand design freedom and simplify manufacturing processes while meeting the challenges of a dynamic market and look no further than 3M™ VHB™ Tape.



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Product	Tape Thickness w/o Liner mils (mm)	Liner Type	Description	Adhesive Type	Temp. Resistance		Solvent Resistance	Relative Adhesion		Application Ideas
					Min Hr	Days Weeks		HSE	LSE	
5908	10 (0.25)	G	Black, closed-cell acrylic foam carrier.	Modified Acrylic	300°F (149°C)	250°F (121°C)	High	High	Med	Bond and seal polycarbonate lens over LCD. Bond and seal plastic windows to pre-painted control panels/switch gear. Mount vinyl wiring ducts and conduit channels. Electronic component and assembly attachment.
5915	16 (0.4)	F								
5925	25 (0.6)	F								
5952	45 (1.1)	F								
RP+040GP	16 (0.4)	A	Gray, closed-cell acrylic foam carrier.	Multi-purpose Acrylic	450°F (230°C)	250°F (121°C)	High	High	Med	
RP+110GP	45 (1.1)	A								

See key on page 74.

3M™ Primers

Product	Solvent	Active Ingredients	VOCs	Color	Flashpoint	Coverage	Application Ideas
AP111	Isopropyl Alcohol (IPA)	Less than 5% by weight	5.91 lb./gal. (708g/L)	Clear	52°F (11°C)	19m²/L (800 ft²/gal.) based on .002 in. wet coating thickness depending on method of application	Promote better adhesion for bare metals and painted surfaces.
AP115	Isopropyl Alcohol and Water	Less than 1% by weight	6.08 lb./gal. (728g/L)	Clear	53°F (12°C)	20–25 ft² per 4 fl oz. bottle (1.8–2.3m² per 118mL bottle)	Promote better adhesion for glass.
Primer 94	See SDS	See SDS	Approx 6.3 lb./gal. (755g/L) less H20 and exempt solvents	Clear Light Yellow/Clear Dark Orange	-4°F (-20°C)	600 ft²/gal. (211m²/L)	Promote better adhesion for a variety of plastic surfaces such as polyethylene, polypropylene, ABS and PET/PBT blends.
Primer UPUV	See SDS	Approx. 5% by weight	3.58 lbs/gal. (429g/L)	Clear	-5°F (-21°C)	600 ft²/gal. (211m²/L)	Improved environmental, health, and safety profile compared to 3M™ Tape Primer 94.

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3M™ Extreme Sealing Tapes

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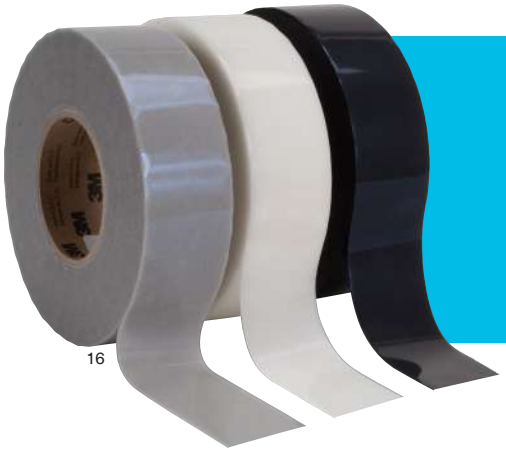
From Trailer, Bus and Rail Car Roof Seams to Metal Enclosures, a Sure Winner Over Traditional Sealants

- Sticks on contact to many metals and plastics without dripping, oozing or clean-up
- Increases productivity throughput with no drying time; immediately paintable*
- Conforms over contours, edges, rivets and screw heads for a water tight seal
- Looks neat and precise for improved aesthetics
- Outstanding resistance to many common industrial solvents
- Excellent resistance to abrasion and high pressure washing

*Accepts many paints. Test paint on tape to check for compatibility.



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Suggested Uses

- RV trailer and roofs
- Metal enclosures
- Awnings
- Trailer home roofs
- Metal storage buildings
- Vent stacks/windows
- Gutters and downspouts
- Skylights
- Outdoor signs/displays
- Leak patching and repairs

Scan the code to download the 3M™ Extreme Sealing Tape Exterior Durability Report.

Product	Color	Backing/ Adhesive	Tape Thickness mils (mm)	Tensile Strength lb/in (N/cm)	90° Peel Adhesion Strength† lb/in (N/cm)						Widths in. (mm)	Length yd. (m)
					Aluminum	Stainless Steel	Glass	Truck Paint	PVC	ABS		
4411G	Grey	Ionomer Film/Pressure Sensitive Acrylic	40 (1)	13 (23)	15 (26)	16 (28)	15 (26)	15 (26)	15 (26)	16 (28)	0.75, 1, 2, 2.5, 3, 4 (19, 25, 50, 65, 75, 100)	36 (32.9)
4411N	Neutral/Translucent		40 (1)	13 (23)	15 (26)	15 (26)	15 (26)	14 (25)	16 (28)	16 (28)		36 (32.9)
4411B	Black		40 (1)	13 (23)	19 (33)	17 (30)	19 (33)	17 (30)	19 (33)	18 (32)		36 (32.9)
4412G	Grey		80 (2)	13 (23)	18 (32)	18 (32)	16 (28)	17 (30)	18 (32)	18 (32)		18 (16.5)
4412N	Neutral/Translucent		80 (2)	13 (23)	18 (32)	18 (32)	19 (33)	19 (33)	19 (33)	19 (33)		18 (16.5)

†Adhesion promoters were used on peel Adhesion test substrates.

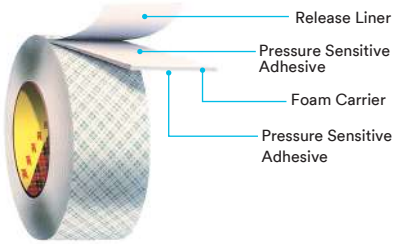
Note: The technical information and data on these pages should be considered representative or typical only and should not be used for specification purposes.

3M™ Double Coated Foam Tapes

Flexible Foam Carriers Fill Gaps and Help Bond Irregular Surfaces

In bonding rough or irregular surfaces, 3M™ Double Coated Foam Tapes fill gaps and distribute stress uniformly over the bonded area.

- Bond line that seals, cushions and damps vibration
- Resists impact
- Withstands a wide temperature range to meet your application requirements
- Provides good insulating qualities
- Select from rubber or acrylic adhesive and a choice of different foam carriers: urethane, polyethylene or acrylic



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To replace screws and liquid adhesives, 3M™ Multipurpose Mounting Tape 4016 bonds immediately to many indoor surfaces, even permanently mounting a plastic soap dispenser to a mirror.



231

3M™ Double Coated Foam Tapes can be precisely die-cut and pre-applied to the back of any shape. Ready to mount to a variety of surfaces.



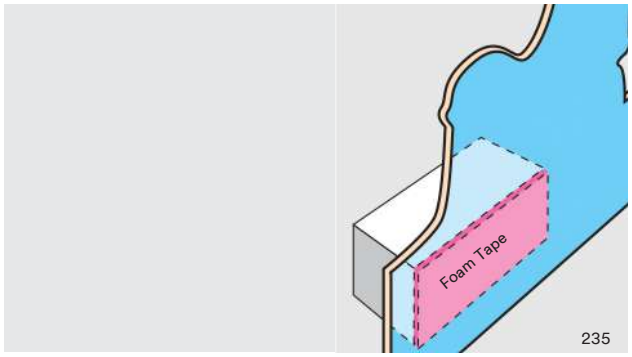
232

To permanently mount to a textured wall, 3M™ Extra Thick Multipurpose Mounting Tape 4008 bonds on contact and fills gaps between the surfaces.



233

3M™ Double Coated Urethane Foam Tapes bond plastic signs to painted cinder block. The foam fills gaps between irregular surfaces. Various foam thicknesses are available for surface conformance based on the degree of roughness.



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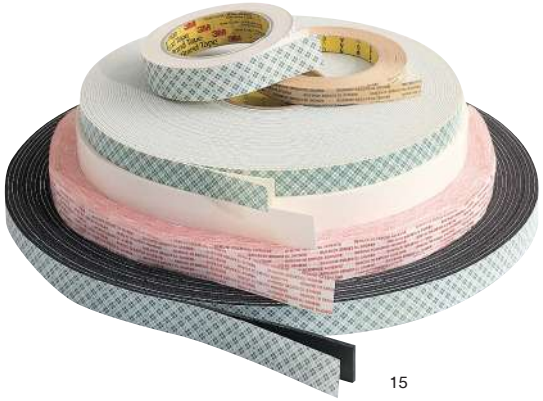
3M™ Double Coated Polyethylene Foam Tapes with high tack adhesive bond foam spacers between the planes of a 3-dimensional P.O.P. display.

3M™ Double Coated Foam Tapes

Product	Tape Thickness mils (mm)	Liner Type	Description	Adhesive Type	Temp. Resistance Min Hr	Temp. Resistance Days Weeks	Adhesive Type	Relative Adhesion HSE	Relative Adhesion LSE	Application Ideas
Urethane										
4004	250 (6.4)	A	Off-white, open-cell urethane foam carrier. High shear adhesive with high temperature resistance.	100	380°F (193°C)	220°F (104°C)	Med	High	Low	Bond acoustic panels to walls. Mount air fresheners. Mount soap dispensers. Mount interior signs and nameplates. Attach wire clips to various surfaces. Mount electrical channel to wall.
4008	125 (3.2)	A								
4016	62 (1.6)	A								
4026	62 (1.6)	A								
4032	31 (0.8)	A								
4052	31 (0.8)	A	Black version of 4032.	100	380°F (193°C)	220°F (104°C)	Med	High	Low	Bond acoustic panels to walls. Mount air fresheners. Mount soap dispensers. Mount interior signs and nameplates. Attach wire clips to various surfaces. Mount electrical channel to wall.
4056	62 (1.6)	A	Black versions of 4016 and 4026.							
4085	45 (1.1)	E	Off-white, open-cell urethane foam carrier. High tack adhesive.	740	200°F (93°C)	125°F (52°C)	Med	High	Low	
Polyethylene										
4462	31 (0.8)	B	White or black, closed-cell polyethylene foam carrier. High tack adhesive.	745	158°F (70°C)	120°F (49°C)	Med	High	Low	Attach hooks, wire clips and racks. Mount retail shelf price channels. Mount pen holders.
4466	62 (1.6)	B								
4492	31 (0.8)	C	White or black, closed-cell polyethylene foam carrier. High shear adhesive with high temperature resistance.	430	180°F (82°C)	158°F (70°C)	Med	High	Low	Mount nameplates on awards and novelties. P.O.P. displays and signs.
4496	62 (1.6)	C								
Acrylic										
4658F	31 (0.8)	D	Clear, closed-cell, acrylic foam tape. Clean removability from many substrates.	100	212°F (100°C)	175°F (80°C)	High	High	Low	Removable P.O.P. displays. Signs. Exhibits and trade shows. Nameplates.

Liner Types:
A – 3 mil 62# Densified Kraft paper – Green plaid
B – 3 mil Densified Kraft paper – White
C – 4 mil 58# Polycoated Kraft paper – Tan
D – 2 mil Polyester film – Clear
E – 3 mil Densified Kraft paper – Tan

Relative Adhesion:
HSE – High Surface Energy
LSE – Low Surface Energy



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

3M™ Double Coated Tapes

A Variety of Carriers for Easy Handling and Dispensing

3M™ Double Coated Tapes are engineered with adhesive on both sides of paper, film or tissue. This increases the dimensional stability of the adhesive for easy handling and application.

Depending on your production volume, you can apply tape by hand or with automatic high-volume dispensers. Select paper, polyester film or other synthetic carriers to help meet your special needs. Different adhesives (rubber, silicone or acrylic) can be on opposite sides of the carrier to join different materials. Your choice of properties include high temperature resistance, conformability to irregular surfaces, high initial adhesion, high shear strength and more.



Simply roll on a strip or band of 3M™ Double Coated Tape 9832 for quick edge banding with no special equipment. Pressure sensitive adhesive tape grabs with immediate handling strength for improved productivity.



With differential adhesive, the silicone adhesive side of 3M™ Double Coated Tape adheres to a silicone rubber keypad. Acrylic adhesive side adheres to a plastic base.



3M™ Double Coated Tape 410M is the quick, convenient way to bond golf club grips to shafts. Adhesive sets up fast and bonds firmly for long-lasting performance.



For precise fit, 3M™ Double Coated Tape is pre-applied to foam gasketing materials and then die-cut to size. This helps increase dimensional stability of the part to facilitate assembly.

Product	Description/Application Ideas	Tape Cal. (mils)	Carrier Type	Liner		Master Size	Specs	Adhesion				Chem. Resist.	Temp. Range	
				Type	Caliper (mils)			Metal	HSE Plastic	LSE Plastic	Foam		Low (°F)	High (°F)
200MP/300LSE (Differential Adhesive)														
9496LE	Differential double coated tape featuring High Performance Acrylic Adhesive 200MP and Low Surface Energy Acrylic Adhesive 300LSE.	6.7	PET	58# PCK	4.2	24 in. x 36 in. sheets	–	10	9	1	3	9	-40	250
								9	9	10	1	7	-40	250
300LSE (Low Surface Energy Acrylic)														
93005LE	Very thin double-coated tape polyester tape with good anti-lifting properties.	2.0	PET	58# PCK/ 83# PCK	4.2/ 6.2	48 in. x 60 yd.	–	9	9	10	1	8	-40	300
93010LE	High adhesion to polypropylene and LSE plastics for excellent graphic appearances. Good chemical/humidity resistance.	3.9	PET	58# PCK	4.2	54 in. x 180 yd.	–	9	9	10	1	8	-40	300
93015LE		5.9	PET	58# PCK	4.2	54 in. x 180 yd.	–	9	9	10	1	8	-40	300
93020LE		7.9	PET	58# PCK	4.2	54 in. x 180 yd.	–	9	9	10	1	8	-40	300

Values: 1 = Lowest Performance; 10 = Highest Performance

Rankings are a general guide. Adhesives should be tested with actual components to ensure acceptable performance.

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

3M™ Double Coated Tapes  292

Product	Description/Application Ideas	Tape Cal. (mils)	Carrier Type	Liner		Master Size	Specs	Adhesion				Chem. Resist.	Temp. Range	
				Type	Caliper (mils)			Metal	HSE Plastic	LSE Plastic	Foam		Low (°F)	High (°F)
300 (High Strength Acrylic)														
444	Foam lamination. Gasket attachment.	3.9	PET	55# DK	3.2	48 in. x 108 yd.	–	7	9	9	9	6	-40	250
444PC	Foam lamination. Gasket attachment.	3.9	PET	58# PCK	4.2	48 in. x 108 yd.	–	7	9	9	9	6	-40	250
300MP+ (High Tack Acrylic)														
9832+	General purpose tape with improved temperature resistance.	4.8	PET	58# PCK	4.2	54 in. x 250 yd.	–	7	7	4	9	–	-40 (-40)	–
9832HL+	Same as 9832+ except with a heavier liner.	4.8	PET	83# PCK	6.2	54 in. x 250 yd.	–	7	7	4	9	–	-40 (-40)	–
99786+	Thin non-woven carrier for dimensional stability and improved handling.	5.5	Non-woven	58# PCK Printed	4.2	48 in. x 180 yd.	–	7	7	4	9	–	-40 (-40)	–
99786NP+	Same as 99786+ except on an unprinted liner.	5.5	Non-woven	58# PCK Unprinted	4.2	54 in. x 180 yd.	–	7	7	4	9	–	-40 (-40)	–
340 (High Tack Acrylic)														
9456	High tack acrylic adhesive with good adhesion to many plastics.	5.0	Tissue	55# DK	3.2	54 in. x 180 yd.	–	6	6	5	4	8	-40	180
9824	Foam lamination. Gasket attachment.	3.1	PET	55# DK	3.2	54 in. x 250 yd.	–	6	6	5	4	8	-40	180
9828	Foam lamination. Gasket attachment.	4.0	PET	55# DK	3.2	54 in. x 250 yd.	–	6	6	5	4	8	-40	180
9828PC	High tack acrylic adhesive with good adhesion to many foams.	4.0	PET	74# PCK	5.6	54 in. x 250 yd.	–	6	6	5	4	8	-40	180
350 (High Performance Acrylic)														
9500PC	High performance with good chemical resistance.	5.6	PET	61.5 PCK	4.5	48 in. x 108 yd.	–	9	10	10	9	8	-40	450
3028EK	Same as 9500PC with an extensible kraft liner which facilitates narrow slitting.	5.6	PET	Extensible Kraft	5.5	48 in. x 108 yd.	–	9	10	10	9	8	-40	450
375 (High Performance Double Coated)														
9086	Easy tearing, easy handling.	7.5	Tissue	Glassine Black Logo	3.0	54 in. x 750 yd.	–	High	High	Med	Low	Good	-10	250
9087	Thick adhesive to bond rough surfaces.	10.2	PVC	Glassine Green Logo	3.0	54 in. x 750 yd.	–	High	High	Med	Low	Good	-10	185
400 (Acrylic Adhesive)														
415	Splice papers, films and foils.	4.0	PET	60# DK	4.0	48 in. x 108 yd.	–	5	5	5	5	5	-60	250
9576	Splice papers, films and foils.	4.0	Clear PP	60# DK	4.0	27 in. x 360 yd.	–	5	5	5	5	5	-60	250

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3M™ Double Coated Tapes

Silicone/Acrylic Differential														
9731	Differential adhesive. Silicone/Acrylic double coated tape. Ideal for attaching silicone materials to HSE or LSE materials.	5.5	PET	Clear PET/54# Tan PCK	3.0/5.4	48 in. x 180 yd.	–	10	10	9	8	8	-40	300
Silicone														
96042	Silicone attachment. Silicone linered for easier processing.	5	PET	White PET	2	48 in. x 180 yd.	–	9	8	7	6	10	-40	350
700/745/760 (Synthetic Rubber)														
9443NP	High tack rubber adhesive with good adhesion to most plastics.	6	HDPE	60# DK	3.7	27 in. x 120 yd.	–	8	9	9	2	2	-40	200
9579	Core starting on metal cores.	9	HDPE	62# DK	3.7	27 in. x 144 yd.	–	8	9	9	2	2	-40	200
9589	Carpet attachment.	9	HDPE	60# DK	3.7	26 in. x 144 yd.	–	8	9	9	2	2	-40	200
830/850/860 (Natural Rubber)														
401M	Used for mounting rubber or photopolymer printing plates.	9.0	Paper	54# DK	3.0	22 in. x 108 yd.	–	8	8	8	5	1	-40	180
410M	Core starting/end tabbing of papers, films and foils.	6.0	Paper	54# DK	3.0	23.5 in. x 108 yd.	–	8	8	8	5	1	-40	200
900 (Miscellaneous)														
9737	Clear, thin PET carrier. Aggressive and versatile splicing tape.	3.5	PET	55# DK White	3.5	54 in. x 180 yd.	–	5	5	2	5	7	-10	300
9738	Clear, non-woven tissue carrier. Aggressive and versatile splicing tape.	4.3	Non-woven tissue	55# DK White	4.3	54 in. x 180 yd.	–	5	5	2	5	7	-10	300
9740	Clear, high peel, tack and shear strength. Performance grade splicing tape for corrugators.	3.5	PET	55# DK	3.5	54 in. x 180 yd.	–	6	6	2	3	6	10	425
9741	Clear, thick, super aggressive tape. Adheres to a wide variety of substrates for splicing applications.	6.5	PET	55# Glassine	6.5	54 in. x 180 yd.	–	7	7	3	7	5	-40	200
9816L	General purpose, high tack, rubber-based adhesive.	3.5	PET	60# Kraft	3.5	54 in. x 200 yd.	–	8	8	7	7	3	-40	150
9816M	General purpose, high tack, rubber-based adhesive.	3.5	PET	74# Kraft	3.5	54 in. x 200 yd.	–	8	8	7	7	3	-40	150
9816H	General purpose, high tack, rubber-based adhesive.	3.5	PET	14 pt. Board	3.5	54 in. x 200 yd.	–	8	8	7	7	3	-40	150
9817L	Exposed side is acrylic, liner side is rubber-based. Excellent quick stick and adhesion to high and low energy surfaces.	3.3	PET	60# Kraft	3.5	54 in. x 200 yd.	–	8	7	6	7	3	-40	175
9817M	Exposed side is acrylic, liner side is rubber-based. Excellent quick stick and adhesion to high and low energy surfaces.	3.3	PET	74# Kraft	3.5	54 in. x 200 yd.	–	8	8	7	6	3	-40	175
9817H	Exposed side is acrylic, liner side is rubber-based. Excellent quick stick and adhesion to high and low energy surfaces.	3.3	PET	14 pt. Board	3.5	54 in. x 200 yd.	–	8	8	7	6	3	-40	175
Specialty Differential Rubber/Acrylic														
9377	Flame retardant double-coated tape for carpet installation to bond carpet to interior floorboards.	11.0	PP	58# PCK	4.2	24 in. x 25 yd.	–	4, 10	–	–	–	8	40	250

Values: 1 = Lowest Performance; 10 = Highest Performance

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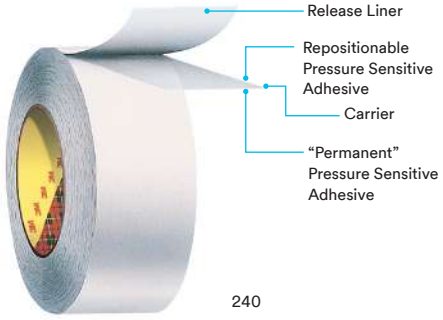
3M™ Removable/Repositionable Tapes

Versatility for Many Substrates on On-Off and Open-Close Applications

Some 3M™ Removable/Repositionable Tapes feature a "permanent" adhesive on one side of a film or tissue carrier and a removable/repositionable adhesive on the other side.

Other tapes in the line offer different levels of adhesion on each side. And others feature equal adhesive strength on each side for reliable attachment but with easy separation for repositioning or multiple openings and closings. You can join substrates that include glass, metals, wood, paper, painted surfaces and many plastics.

With lined versions, you can initially join one side to a surface while the other side is covered with the liner, ready to be joined later to the second surface. Linerless versions are used for bonding both surfaces at the same time.



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High tack side of 3M™ Removable/ Repositionable Tape 9415 "permanently" adheres to cores for winding up paper or film. Low tack side releases the paper or film when unwinding.

Product	Description/Application Ideas	Tape Cal. (mils)	Carrier Type	Liner		Master Size	Specs	Adhesion				Chem. Resist.	Temp. Range	
				Type	Caliper (mils)			Metal	HSE Plastic	LSE Plastic	Foam		Low (°F)	High (°F)
400/1000* (Differential Adhesive)														
9415PC	Differential adhesive; polyester film carrier.	2	PET	78# PCK	6.0	48 in. x 216 yd.	–	5	5	5	4	5	-20	150
9416	Differential adhesive; tissue carrier.	1	Tissue	70# PCK	5.6	48 in. x 216 yd.	–	3	1	1	–	2	-20	150
928ATG	Reverse wound ATG version of 9416 on 1 in. core. Used with ATG700 Applicator.	1	Tissue	70# PCK	5.6	Up to 3/4 in. W Up to 36 yd. L	–	3	1	1	–	2	-20	150
420/1050* (Differential Adhesive)														
9425	High tack/medium tack for repositionable parts.	5.5	UPVC	58# PCK	4.2	48 in. x 144 yd.	–	8	7	1	4	2	-20	125
							–	3	1	1	1	2		
9425HT	High tack/medium tack acrylic adhesive offers permanent adhesion to one substrate with removability to the other.	5	PET	58# PCK	4.2	48 in. x 144 yd.	–	8	7	1	4	2	-20	250
							–	3	1	1	1	2		
400/1070 (Repositionable Acrylic)														
665	Differential adhesive; linerless.	3.5	UPVC	None	–	46 in. x 108 yd.	–	5	5	5	4	5	-60	125
666	Differential adhesive; linered.	3.5	UPVC	LDPE	4.0	46 in. x 108 yd.	–	5	5	5	4	5	-60	125
800 (Natural Rubber)														
401M	Temporary positioning or fixturing of parts during machining operations and plate mounting.	9	Paper	54# DK	3	22 in. x 108 yd.	–	8	8	8	5	1	-40	180
410M		6	Paper	54# DK	3	23.5 in. x 108 yd.	–	8	8	8	5	1	-40	200

*Second number reflects removable adhesive side.

Values: 1 = Lowest Performance; 10 = Highest Performance

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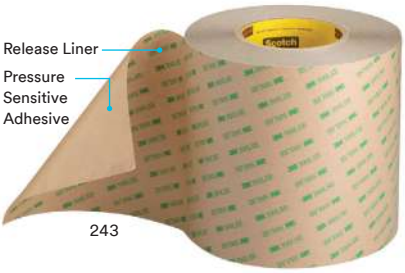
3M™ Adhesive Transfer Tapes

Neat, Precise Application and High Performance in a Variety of Applications

3M™ Adhesive Transfer Tapes are rolls of pressure sensitive adhesive pre-applied to a special release liner.

For application, the tape is simply pressed, adhesive side down, to a surface and the liner is peeled off.

A variety of adhesive properties and liners are available to meet requirements for applications such as nameplate attachment to high and low surface energy plastics, appliance graphic overlays that perform in high temperatures, foam gasketing, web splicing and more.





With high cohesive strength, 3M™ Adhesive 200MP bonds aggressively with excellent temperature resistance. Meets the non-fogging specifications of the automotive industry.



For bonding flexible vinyl in such applications as door gaskets, 3M™ Adhesive Transfer Tape F9465PC resists the effect of plasticizers that tend to migrate from the vinyl.



3M™ Adhesive Transfer Tape 465 has the grab strength for many printing splices, including flying splices, zero speed and manual overlap. Can be used with a variety of paper grades.



3M™ Adhesive Transfer Tape 467MP is used to laminate metal foil to a circuit board to reduce interference on electronic circuitry.



For graphic beauty, 3M™ Acrylic Adhesive 100 attaches graphics in closed environments. With low odor, reduced outgassing and low fogging, it is used extensively in the automotive, aerospace and appliance industries.

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3M™ Adhesive Transfer Tapes



Product	Description/Application Ideas	Adhesive Caliper (mils)	Liner		Master Size	Specs	Adhesion				Chem. Resist.	Temp. Range	
			Type	Caliper (mils)			Metal	HSE Plastic	LSE Plastic	Foam		Low (°F)	High (°F)
100MP* (High Performance Acrylic)													
F9460PC	High performance industrial joining and metal fabrication.	2	58# PCK	4.2	60 in. x 180 yd.	UL	10	7	1	2	10	-40	500
F9469PC	High performance industrial joining and metal fabrication.	5	58# PCK	4.2	60 in. x 180 yd.	UL	10	7	1	2	10	-40	500
F9473PC	High performance industrial joining and metal fabrication.	10	58# PCK	4.2	60 in. x 180 yd.	UL	10	7	1	2	10	-40	500
200MP (High Performance Acrylic)													
467MC	Same as 467MP with a paper MicroChannel liner to aid in bubble and wrinkle free graphic attachment.	2	58# PCK	4.2	54 in. x 180 yd.	–	10	9	1	3	9	-40	400
467MCF	Same as 467MP with a polyester MicroChannel liner to aid in bubble and wrinkle free graphic attachment.	2	PET	4.2	54 in. x 180 yd.	–	10	9	1	3	9	-40	400
467MP	Graphic attachment and general industrial joining. Industry standard. 60 in. width master also available.	2	58# PCK	4.2	48 in. x 180 yd.	UL MH	10	9	1	3	9	-40	400
467MPF	Polyester liner for rotary processing of graphic and die cut parts.	2	PET	2.0	54 in. x 180 yd.	UL	10	9	1	3	9	-40	400
468MC	Same as 468MP with a paper MicroChannel liner to aid in bubble and wrinkle free graphic attachment.	5	58# PCK	4.0	54 in. x 180 yd.	–	10	9	1	3	9	-40	400
468MCF	Same as 468MP with a polyester MicroChannel liner to aid in bubble and wrinkle free graphic attachment.	5	PET	4.0	54 in. x 180 yd.	–	10	9	1	3	9	-40	400
468MP	Industry standard for graphic attachment and die cut parts. 60 in. width master also available.	5	58# PCK	4.2	48 in. x 180 yd.	UL MH	10	9	1	3	9	-40	400
468MPF	Thicker version of 467MPF.	5	PET	2.0	54 in. x 180 yd.	UL	10	9	1	3	9	-40	400
9667MP	Same as 467MP on heavy, lay-flat liner for kiss-cutting. 48 in. width master also available.	2	83# PCK	6.2	54 in. x 180 yd.	UL	10	9	1	3	9	-40	400
9668MP	Same as 468MP on heavy, lay-flat liner. 48 in. width master also available.	5	83# PCK	6.2	54 in. x 180 yd.	UL MH	10	9	1	3	9	-40	400
9668MPL	Better lay-flat properties.	5	94# PCK	7.0	60 in. x 180 yd.	–	10	9	1	3	9	-40	400
220 (Industrial Acrylic)													
9502	Economical attachment of graphics and industrial joining. 60 in. width master also available.	2	58# PCK	4.2	48 in. x 180 yd.	UL	8	7	1	2	8	-40	350
9505	Thicker version of 9502 for textured surfaces. 60 in. width master also available.	5	58# PCK	4.2	48 in. x 180 yd.	UL	8	7	1	2	8	-40	350
9552	Double-lineredlaminating adhesive version of 9502.	2.3	58/58# PCK	4.2	48 in. x 360 yd.	UL	8	7	1	2	8	-40	350
9555	Double-lineredlaminating adhesive version of 9505.	4.9	58/58# PCK	4.2	48 in. x 360 yd.	UL	8	7	1	2	8	-40	350

*Products in this platform are 3M™ VHB™ Tapes offering our highest strength.
MH meets Mil-P-19834B Type I.

Values: 1 = Lowest Performance; 10 = Highest Performance

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3M™ Adhesive Transfer Tapes



Product	Description/Application Ideas	Adhesive Caliper (mils)	Liner		Master Size	Specs	Adhesion				Chem. Resist.	Temp. Range	
			Type	Caliper (mils)			Metal	HSE Plastic	LSE Plastic	Foam		Low (°F)	High (°F)
290 (Low Outgassing Acrylic)													
501FL	Ultra-clean adhesive for low outgassing applications.	1	PET	2.0	54 in. x 180 yd.	–	9	7	1	2	9	-40	450
502FL	Ultra-clean adhesive for low outgassing applications.	2	PET	2.0	54 in. x 180 yd.	–	9	7	1	2	9	-40	450
300 (High Strength Acrylic)													
927	Attach gaskets and a variety of industrial foam materials.	2	60# DK	3.5	48 in. x 180 yd.	–	7	9	9	9	6	-40	250
950	Thicker version of 927.	5	60# DK	3.5	48 in. x 180 yd.	UL	7	9	9	9	6	-40	250
950EK	Thicker version of 927 with extensible Kraft liner.	5	78# EK	6.0	48 in. x 180 yd.	–	7	9	9	9	6	-40	250
992U	For performance-engineered labels. UV indicator in adhesive.	2	55# DK	3.2	48 in. x 180 yd.	UL	7	9	9	9	6	-40	250
9458	Thin, high tack adhesive for rotary processing HSE and LSE parts.	1	55# DK	3.2	54 in. x 360 yd.	UL	7	9	9	9	6	-40	250
9459W	White version of laminating adhesive 9459S.	1.5	55# DK	3.2	48 in. x 360 yd.	UL	7	9	9	9	6	-40	250
9471	For smooth LSE plastics.	2	60# DK	3.5	48 in. x 180 yd.	UL MH	7	9	9	9	6	-40	250
9472	5.0 mil version of 9471; for textured surfaces.	5	60# DK	3.5	48 in. x 180 yd.	UL MH	7	9	9	9	6	-40	250
9653	A 3.5 mil version of 9471 on a heavy, lay-flat liner for kiss-cutting.	3.5	83# PCK	6.2	48 in. x 180 yd.	UL	7	9	9	9	6	-40	250
9671	Heavier linered version of 9471 for easy handling, lay-flat properties.	2	83# PCK	6.2	48 in. x 180 yd.	UL MH	7	9	9	9	6	-40	250
9672	Heavier linered version of 9472 for easy handling, lay-flat properties.	5	83# PCK	6.2	48 in. x 180 yd.	UL	7	9	9	9	6	-40	250
9673	Same as 9671 with unprinted liner.	2	83# PCK	6.2	48 in. x 180 yd.	UL MH	7	9	9	9	6	-40	250
300FR (Flame Retardant)													
9372W	Flame retardant. Moisture stable liner.	2	83# PCK	6.2	60 in. x 180 yd.	UL	8	9	9	9	6	-40	250
9372DKW	Flame retardant. Rotary diecuttable liner.	2	55# DK	3.2	60 in. x 180 yd.	UL	8	9	9	9	6	-40	250
9375W	Flame retardant. Moisture stable liner.	5	83# PCK	6.2	60 in. x 180 yd.	UL	8	9	9	9	6	-40	250

*Products in this platform are 3M™ VHB™ Tapes offering our highest strength.
MH meets Mil-P-19834B Type I.

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3M™ Adhesive Transfer Tapes



Product	Description/Application Ideas	Adhesive Caliper (mils)	Liner		Master Size	Specs	Adhesion				Chem. Resist.	Temp. Range	
			Type	Caliper (mils)			Metal	HSE Plastic	LSE Plastic	Foam		Low (°F)	High (°F)
300LSE (Low Surface Energy Acrylic)													
9453FL	Film linered version of 9453LE for rotary processing.	3.5	PET	2.0	54 in. x 180 yd.	UL	9	10	10	1	7	-40	300
9453LE	A 3.5 mil version of 9471LE for application to rough surfaces. 48 in. master width available.	3.5	58# PCK	4.2	54 in. x 180 yd.	UL	9	10	10	1	7	-40	300
9471FL	Film linered version of 9471LE for rotary processing.	2.3	PET	2.0	54 in. x 180 yd.	UL	9	10	10	1	7	-40	300
9471LE	Bonds graphics to powder coatings, LSE plastics and oily materials.	2.3	58# PCK	4.2	54 in. x 180 yd.	UL	9	10	10	1	7	-40	300
9472FL	A 5 mil version of 9471LE with film liner for textured surfaces.	5.2	PET	2.0	54 in. x 180 yd.	UL	9	10	10	1	7	-40	300
9472LE	Thicker adhesive for textured LSE plastics and powder coatings.	5.2	58# PCK	4.2	54 in. x 180 yd.	UL	9	10	10	1	7	-40	300
9653LE	Heavy linered 9453LE for easy handling and lay-flat properties.	3.5	83# PCK	6.2	54 in. x 180 yd.	UL	9	10	10	1	7	-40	300
9671LE	Heavy linered 9471LE for easy handling and lay-flat properties.	2.3	83# PCK	6.2	54 in. x 180 yd.	UL	9	10	10	1	7	-40	300
9672LE	Heavy linered 9472LE for easy handling and lay-flat properties.	5.2	83# PCK	6.2	54 in. x 180 yd.	UL	9	10	10	1	7	-40	300
300MP+ (High Tack Acrylic)													
9772WL+	Provides excellent bond to various fabricated foams, fabrics and substrates.	2	96# PCK	7.0	60 in. x 360 yd.	–	7	7	4	9	–	-40 (-40)	–
9773WL+	Provides excellent bond to various fabricated foams, fabrics and substrates.	3	96# PCK	7.0	60 in. x 360 yd.	–	7	7	4	9	–	-40 (-40)	–
9774WL+	Provides excellent bond to various fabricated foams, fabrics and substrates.	4	96# PCK	7.0	60 in. x 360 yd.	–	7	7	4	9	–	-40 (-40)	–
9775WL+	Provides excellent bond to various fabricated foams, fabrics and substrates.	5	96# PCK	7.0	60 in. x 360 yd.	–	7	7	4	9	–	-40 (-40)	–
320 (High Tenacity Acrylic)													
9447	Designed for use with 3M™ Label Component Systems.	1	55# DK	3.2	54 in. x 360 yd.	–	5	5	1	1	5	-60	250
350 (High Performance Acrylic)													
9442	Excellent temperature and solvent resistance; high bond to low surface energy substrates.	2	55# DK	3.2	48 in. x 180 yd.	UL	9	10	10	9	8	-40	450
9445	Thicker version of 9442.	5	55# DK	3.2	48 in. x 180 yd.	UL	9	10	10	9	8	-40	450
9482PC	High tack and shear strength; excellent adhesion to plastics and foams.	2	58# PCK	4.2	48 in. x 180 yd.	UL	9	10	10	9	8	-40	450
9485EK	Thicker version of 9482PC with an extensible Kraft liner.	5	78# EK	6.0	48 in. x 180 yd.	–	9	10	10	9	8	-40	450
9485PC	A 5 mil version of 9482PC.	5	58# PCK	4.2	48 in. x 180 yd.	UL	9	10	10	9	8	-40	450
9675	Heavy linered version of 9485PC for easy handling, lay-flat properties.	5	83# PCK	6.2	48 in. x 180 yd.	–	9	10	10	9	8	-40	450

*Manufactured using a solventless adhesive coating process.

Values: 1 = Lowest Performance; 10 = Highest Performance

Rankings are a general guide. Adhesives should be tested with actual components to ensure acceptable performance.

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

3M™ Adhesive Transfer Tapes


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Product	Description/Application Ideas	Adhesive Caliper (mils)	Liner		Master Size	Specs	Adhesion				Chem. Resist.	Temp. Range	
			Type	Caliper (mils)			Metal	HSE Plastic	LSE Plastic	Foam		Low (°F)	High (°F)
400 (Acrylic Adhesive)													
463	High tack and excellent adhesion to most paper stocks. For automatic dispensing.	2	60# DK	3.5	48 in. x 180 yd.	–	5	5	5	4	5	-60	250
465	Same as 463, but with easy liner release for manual or hand application.	2	60# DK	3.5	48 in. x 180 yd.	–	5	5	5	4	5	-60	250
9457	Adhesive with long term stability, excellent outdoor performance and UV resistance. Adhesive 400 is best if necessary to apply at cooler temperatures.	1	55# DK	3.2	54 in. x 360 yd.	UL	5	5	5	4	5	-60	250
9665	Thicker version of 9457.	2	58# PCK	4.2	48 in. x 180 yd.	–	5	5	5	4	5	-60	250
420 (Acrylic Adhesive)													
F9752PC	High tack; can be applied in temperatures as low as 32°F (0°C).	2	58# PCK	4.2	54 in. x 360 yd.	–	7	7	8	4	6	-40	300
F9755PC	Thicker version of F9752PC for textured surfaces.	5	58# PCK	4.2	54 in. x 360 yd.	–	7	7	8	4	6	-40	300
430 (Acrylic Adhesive)													
9497	Pink tinted high temperature splicing tape.	2	60# DK	3.5	48 in. x 360 yd.	–	6	6	5	4	5	-40	350
9499	Transparent version of 9497.	2	60# DK	3.5	48 in. x 360 yd.	–	6	6	5	4	5	-40	350
Specialty Acrylic													
9379	Jet fuel and hydraulic fluid resistant adhesive transfer tape.	2	PET	2	48 in. x 200 yd.	MH*	9	8	1	2	9	-40	350
9380	Thicker version of 9379.	5	PET	2	48 in. x 200 yd.	MH*	9	8	1	2	9	-40	350
F9465PC	Vinyl plasticizer resistant adhesive.	5	58# PCK	4.2	54 in. x 360 yd.	–	10	10	7	5	5	-40	200
F9467U	Vinyl plasticizer resistant adhesive.	3.5	58# PCK	4.2	54 in. x 180 yd.	–	10	10	7	5	5	-40	200
Silicone													
91022	Silicone attachment. Silicone linered for easier processing.	2	White PET	2	48 in. x 180 yd.	–	9	8	7	6	10	-40	500

*MH meets Mil-P-19834B Type I.

Values: 1 = Lowest Performance; 10 = Highest Performance

Rankings are a general guide. Adhesives should be tested with actual components to ensure acceptable performance.

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

Scotch® ATG Adhesive Transfer Tapes

Finger Touch Application of Pressure Sensitive Adhesive

Versatility, convenience and speed. That's what you get with Scotch® ATG Adhesive Transfer Tapes for assembly operations in businesses ranging from appliance and printing to P.O.P. and electronics. Readily bond, join, mount, or laminate materials such as paper, plastics, metal, foam and more.

With Scotch® ATG Applicators, a touch of the finger triggers a quick, controlled application of Scotch® ATG Adhesive Transfer Tape at the same time as the liner rewinds into the applicator. There is no mess and no cleanup. 3M advanced acrylic adhesive bonds on contact and is formulated with a choice of properties such as high temperature resistance, differential tack, adhesion to low surface energy plastic and more.



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Save time and effort with Scotch® ATG Adhesive Transfer Tapes and Applicators. You apply a precise strip of adhesive at the same time as the liner rewinds into the applicator.



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Scotch® ATG Applicator 700 with Scotch® ATG Adhesive Transfer Tape 924 makes fast work of folder assembly. Pressure sensitive adhesive bonds immediately and the folder pocket is ready to hold contents.


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Scotch® ATG Applicator 700 for 3/4" and 1/2" wide tape


253

Scotch® ATG Applicator 714 for 1/4" wide tape


255

Scotch® ATG Applicator 752C for 3/4", 1/2" and 1/4" wide tape (1/4" adapter purchased separately)


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Scotch® ATG Applicator 3662 for 2" wide tape

Product	Tape Thickness w/o Liner mils (mm)	Description	Temperature Resistance		Solvent Resistance	Relative Adhesion		Application Ideas	Adhesive Transfer Tape Equivalent
			Min Hr	Days Weeks		HSE	LSE		
350 (Firm Acrylic)									
926	5 (0.13)	High adhesion, excellent shear holding power to a variety of substrates. UV resistant.	450°F (232°C)	300°F (149°C)	Very Good	High	Med-High	Nameplates on award plaques, bonding foam insulation.	—
300 (Soft Acrylic)									
969	5 (0.13)	Very high initial adhesion, good shear holding power to a variety of materials including plastics.	250°F (121°C)	180°F (82°C)	Med	High	Med-High	Assemble point of purchase displays, attach fabric swatches in sample books.	—
300 (High Tack Acrylic)									
976	2 (0.05)	High tack. Excellent adhesion to most plastics.	250°F (121°C)	150°F (65°C)	Med	High	High	Attach fabric swatches in sample books.	927
400 (General Purpose Adhesive)									
924	2 (0.05)	General purpose. Excellent adhesion to most paper stocks.	250°F (121°C)	180°F (82°C)	Med	Med	Low	Seal pocket in folders. Bond mat board in picture frames. Splice paper, films, foils. General purpose bindery attaching.	465
987*	1.7 (0.040)	General purpose. Excellent adhesion to most paper stocks.	250°F (121°C)	180°F (82°C)	Med	Med	Low	Seal pocket in folders. Bond mat board in picture frames. Splice paper, films, foils. General purpose bindery attaching.	9498

*3M Brand. **Relative Adhesion: HSE** – High Surface Energy; LSE – Low Surface Energy

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

3M™ Extended Liner Tapes

Versatile Pressure Sensitive Adhesive on Easy-to-Remove Liners

3M™ Extended Liner Tapes offer the adhesive versatility of 3M tapes but with liners wider than the adhesive. This leaves an easy-to-lift edge for convenient and easy liner removal. With the variety of adhesives, you have a selection of performance characteristics such as high tack for coated papers and plastics, low tack for temporary attachment, high temperature resistance and more. Apply manually or with equipment matched to your production volume requirements.


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3M™ Extended Liner Tapes are available with a release liner wider than the adhesive. This provides an easy-to-grab edge for convenient liner removal.

Depending on adhesive type, 3M™ Extended Liner Tapes are applied to envelopes, polybags, boxes or tubes. User simply peels off liner to expose the adhesive for an immediate, secure closure.


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3M™ Extended Liner Tapes 450XL, 450EK and 465XL immediately bond product information "outserts" to polyethylene bottles. Holds tightly but can be cleanly removed.

Product	Tape Thickness w/o liner mils (mm)	Liner Type	Description	Temperature Resistance		Solvent Resistance	Relative Adhesion		Application Ideas
				Min Hr	Days Weeks		HSE	LSE	
340									
466XL	2 (0.05)	62# DK White with Black Print	High tack; Permanent	180°F (82°C)	150°F (65°C)	Med	High	High	Coated papers and low surface energy (LSE) plastics. Overnight envelopes. Features an end-of-roll indicator tab for automated dispensing.
400									
465XL	2 (0.05)	60# DK Tan with Green Print	General purpose	250°F (121°C)	180°F (82°C)	Med	Med	Low	Seal flaps on overnight envelopes. Pressure sensitive edging on business forms. General commercial joining applications. For attaching materials that require more adhesive thickness. Larger outsert attachments.
450EK	1 (0.025)	78# Extensible Kraft White without Print	General purpose	250°F (121°C)	180°F (82°C)	Med	Med	Low	Pharmaceutical outsert attachment. For applications requiring a more tear resistant liner.
450XL	1 (0.025)	60# DK Tan with Green Print	General purpose	250°F (121°C)	180°F (82°C)	Med	Med	Low	Pharmaceutical outsert attachment. General paper attachment.
920XL	1 (0.025)	40# DK White with Red Print	General purpose	250°F (121°C)	180°F (82°C)	Med	Med	Low	Seal flaps on polybags and envelopes. Pressure sensitive edging on business forms, literature, photos, posters and labels.
9926XL	1 (0.025)	40# DK White with Red Print	General purpose	180°F (82°C)	150°F (65°C)	Med	Med	Low	Economical alternative for general paper-to-paper applications.
600									
9934XL	4 (0.10)	60# DK tan without Print	High tack to LSE materials	150°F (65°C)	120°F 49°C)	Med	High	High	P.O.P. displays. Difficult splicing applications, shelf talkers, price tags, polyethylene foam bonding. Indirect food-contact applications. High tack to LSE materials.
760									
476XL	6 (0.16)	62# DK White with Red Print	High tack, double coated film	150°F (65°C)	120°F 49°C)	Med	High	High	Heavy-duty sealing. Mounting of promotional items. Core starting. Closure of overnight boxes, tubes and envelopes. Indirect food-contact applications.
770									
9925XL*	2.5 (0.065)	43# DK White with Black Print	Tissue reinforced; High initial adhesion to a wide variety of materials	150°F (65°C)	100°F 41°C)	Low	Med	Med	General mounting. P.O.P. items. Attaching tags and labels. Core starting. Permanent bonding paper-to-paper, business forms, traffic tickets, novelty items and literature. Indirect food-contact applications.

*Non-liner side is adhesive coated full width.

Relative Adhesion:
HSE – High Surface Energy
LSE – Low Surface Energy

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

Notes:

Supporting your designs behind the seams.

Powerful Fastening Solutions

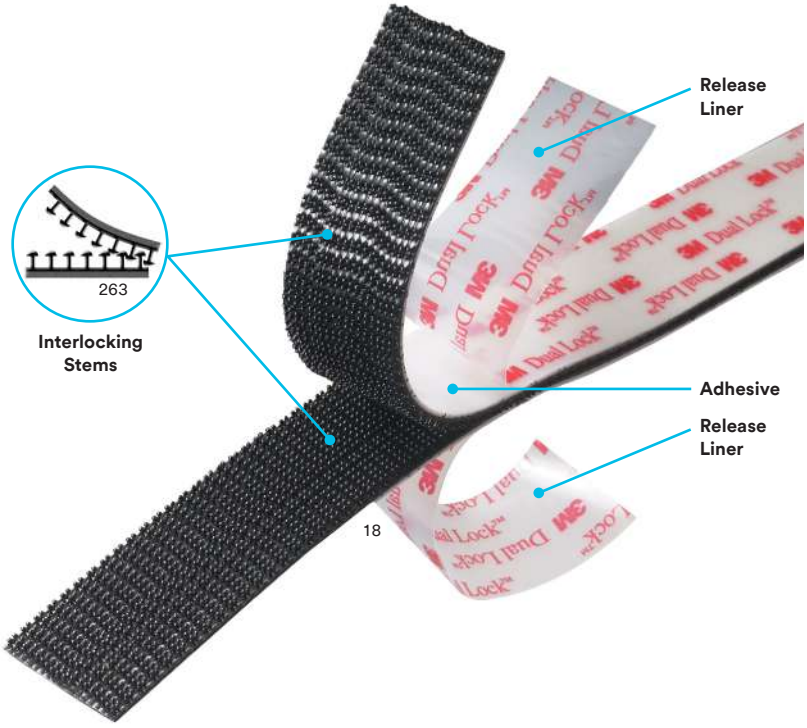
Weather-resistant single coated foam tapes are practical solutions that protect against moisture, dust, vibration and impact, and remain flexible.

3M™ Dual Lock™ Reclosable Fasteners

Holding Power to Replace Screws, Bolts and Rivets

Durable enough to last through repeated opening and closing. Unique mushroom-shaped heads snap shut and stay locked.

- Durable — up to 1,000 openings and closings before losing 50% of original tensile strength
- Helps reduce vibration
- Temperature, moisture and UV resistant
- Strong, pressure-sensitive adhesive bonds on contact
- Interlocking mushroom-shaped heads have **5X the tensile strength** of hook-and-loop products





Secure plastic signs to window glass.



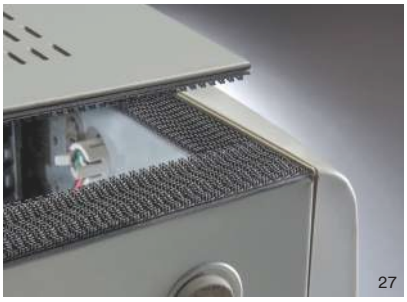
Anchor vehicle accessories to dashboard.



Attach elevator control panel to interior wall.



Fasten ceiling panels to interior for future access.



Attach access panels to industrial, electronic and electrical equipment.

3M™ Dual Lock™ Reclosable Fasteners and Applications

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■ Best Suggested Product
● Primer Recommended
▲ Performance Dependent on Selected Attachment Method

Product	Stem Density (per sq/in)	Adhesive	Color	3M Liner	Engaged Thickness	Temperature Resistance °F (°C)	Metals (Al & SS)	Glass	Plastics (Acrylic, PC, ABS)	Powder Coated Paints	Low Surface Energy (PP,PE)	Indoor/ Outdoor Use	Appliance & Electronics	Design & Construction	Furniture & Upholstery	General Industrial	Marine & Specialty Vehicle	POP, Display & Signage
SJ3540	250	Rubber	Black	White, 5 mil (0.13mm) Polyolefin	0.23 in (5.7mm)	120 (49)	■		■	■	■	Indoor			■	■		■
SJ3541	400	Rubber	Black	White, 5 mil (0.13mm) Polyolefin	0.23 in (5.7mm)	120 (49)	■		■	■	■	Indoor			■	■		■
SJ3542	170	Rubber	Black	White, 5 mil (0.13mm) Polyolefin	0.23 in (5.7mm)	120 (49)	■		■	■	■	Indoor			■	■		■
SJ3550CF	250	Clear Acrylic	Black	Clear, 4 mil (0.10mm) Polyolefin	0.23 in (5.7mm)	200 (93)	■	■	■	●	●	Indoor/ Outdoor	■	■	■	■	■	■
SJ3551CF	400																	
SJ3552CF	170																	
SJ3560	250	Clear Acrylic	Clear	Clear, 4 mil (0.10mm) Polyolefin	0.23 in (5.7mm)	200 (93)	■	■	■	●	●	Indoor/ Outdoor	■	■	■	■	■	■
SJ3561	400																	
SJ3562	170																	
SJ3870	250	Modified Acrylic	Black	Red, 4.5 mil (0.11mm) Polyolefin	0.24 in (6.1mm)	140 (60)	■		■	■	●	Indoor/ Outdoor			■	■		■
SJ3871	400																	
SJ3872	170																	
SJ3782	250	Low Surface Energy Acrylic	Black	Brown, 83# Polykraft	0.16 in (4.1mm)	120 (49)	■		■	■	■	Indoor/ Outdoor	■		■	■		■
SJ3440	250	None	Black	No Liner	0.15 in (3.86mm)	220 (104)	▲	▲	▲	▲	▲	Indoor/ Outdoor	▲	▲	▲	▲	▲	▲
SJ3441	400	None	Black	No Liner	0.15 in (3.86mm)	220 (104)	▲	▲	▲	▲	▲	Indoor/ Outdoor	▲	▲	▲	▲	▲	▲
SJ3442	170	None	Black	No Liner	0.15 in (3.86mm)	220 (104)	▲	▲	▲	▲	▲	Indoor/ Outdoor	▲	▲	▲	▲	▲	▲
SJ3443	400	Non-woven Backing with No Adhesive	Black	No Liner	0.28 in (7.1mm)	220 (104)	▲	▲	▲	▲	▲	Indoor/ Outdoor	▲	▲	▲	▲	▲	▲
SJ3444	170		Black	No Liner	0.28 in (7.1mm)	220 (104)	▲	▲	▲	▲	▲	Indoor/ Outdoor	▲	▲	▲	▲	▲	▲
SJ3445	250		Black	No Liner	0.28 in (7.1mm)	220 (104)	▲	▲	▲	▲	▲	Indoor/ Outdoor	▲	▲	▲	▲	▲	▲
SJ3460	250	None	Clear	No Liner	0.15 in (3.86mm)	220 (104)	▲	▲	▲	▲	▲	Indoor/ Outdoor	▲	▲	▲	▲	▲	▲
SJ3463	400	Piece Part Circle†	Black	No Liner	0.20 in** (5.1mm)	220 (104)	■		■	■	■	Indoor/ Outdoor	■	■	■	■	■	■
SJ3481	400	Rigid Strip†	Black	No Liner	0.20 in** (5.1mm)	220 (104)	▲	▲	▲	▲	▲	Indoor/ Outdoor	▲	▲	▲	▲	▲	▲
Low Profile																		
SJ4570	Low Profile/ Thin	Low Surface Energy Acrylic	Clear	Brown, 83# Polykraft	0.098 in (2.489mm)	158 (70)	■		■	■	■	Indoor/ Outdoor	■	■	■	■		■
SJ4575	Low Profile/ Thin	Low Surface Energy Acrylic	Black	Brown, 83# Polykraft	0.098 in (2.489mm)	158 (70)	■		■	■	■	Indoor/ Outdoor	■	■	■	■		■
SJ4580	Low Profile/ Thin	Clear Acrylic	Clear	Red, 4.5 mil (0.11mm) Polyolefin	0.12 in (3.0mm)	200 (93)	■	■	■	●	●	Indoor/ Outdoor	■	■	■	■	■	■

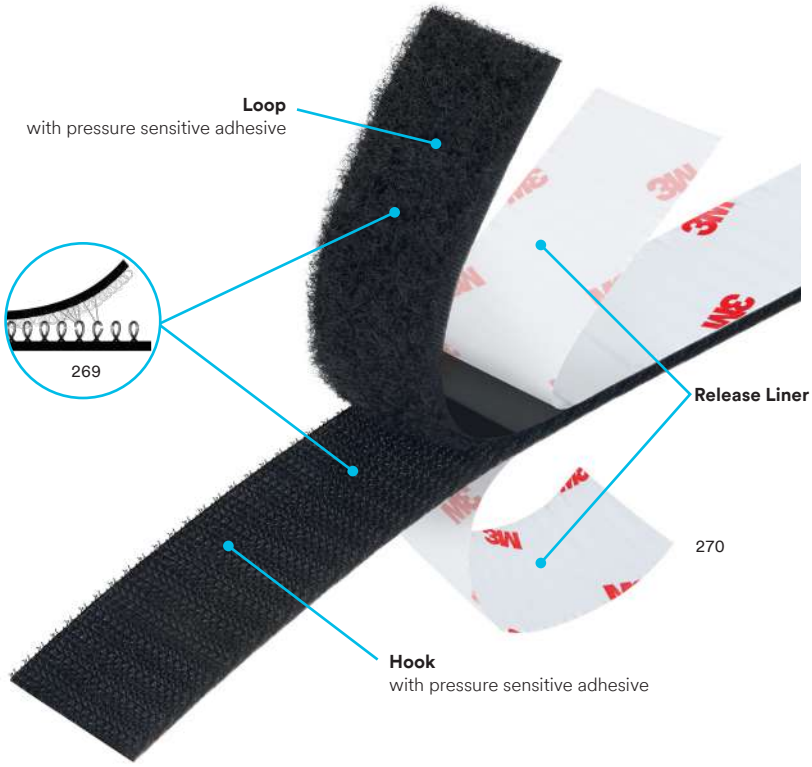
**Single thickness; not engaged †No adhesive

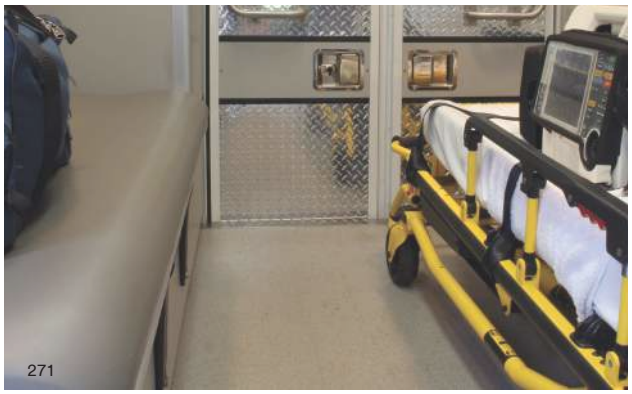
Note: The technical information and data on these pages should be considered representative or typical only and should not be used for specification purposes.

3M™ Hook and Loop Reclosable Fasteners

Hooks on One Side, Loops on the Other for Secure, Repeated Closures

- Reliable PSA holds on contact with a variety of materials
- Low profile options, as much as 75% thinner than standard product
- Up to 5,000 closures for standard Hook and Loop
- Flame resistant product available
- Also available without adhesive





Attach cushioning panels in an ambulance or bus.



Sew to the fabric and leather of jackets and gloves.



Use as a replacement for string, tapes, rubber bands, wire and strapping.



Attach removable seat cushions.



Hang graphics and banners that change frequently.

3M™ Hook and Loop Reclosable Fasteners and Applications

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- ■ Best Suggested Product
- ● Performance Dependent on Selected Attachment Method
- ▲ Primer Recommended
- □ Back-to-back fastener which can wrap around any type of surface or substrate

Product	Type	Adhesive	Closure Life	Product Material	Liner Description	Engaged Thickness	Temperature Resistance °F (°C)	Metals (Al & SS)	Glass	Plastics (Acrylic, PC, ABS)	Powder Coated Paints	Low Surface Energy (PP, PE)	Indoor/Outdoor Use	Aerospace & Rail	Furniture & Upholstery	General Industrial	Marine & Specialty Vehicle	POP, Display & Signage
High Performance																		
SJ3526N	Hook	High Performance Rubber	5,000	Nylon	White, 3 mil (0.08mm) Polyethylene Film 3M Red Print	0.14 in. (3.6mm)	120 (49)	■		■	■	■	Indoor		■	■		■
SJ3527N	Loop	High Performance Rubber	5,000	Nylon	White, 3 mil (0.08mm) Polyethylene Film 3M Red Print	0.14 in. (3.6mm)	120 (49)	■		■	■	■	Indoor		■	■		■
SJ3572	Hook	High Performance Acrylic	5,000	Nylon	Clear, 4 mil (0.10mm) Polypropylene Film Embossed 3M Logo	0.14 in. (3.6mm)	200 (93)	■	■	■	▲	▲	Indoor/ Outdoor		■	■	■	■
SJ3571	Loop	High Performance Acrylic	5,000	Nylon	Clear, 4 mil (0.10mm) Polypropylene Film Embossed 3M Logo	0.14 in. (3.6mm)	200 (93)	■	■	■	▲	▲	Indoor/ Outdoor		■	■	■	■
General Purpose																		
SJ3522	Hook	Plasticizer Resistant Acrylic	5,000	Nylon	Clear, 3.5 mil (0.08mm) Polyolefin Film, No print	0.14 in. (3.6mm)	158 (70)	■		■			Indoor/ Outdoor		■	■	■	■
SJ3523	Loop	Plasticizer Resistant Acrylic	5,000	Nylon	Clear, 3.5 mil (0.08mm) Polyolefin Film, No print	0.14 in. (3.6mm)	158 (70)	■		■			Indoor/ Outdoor		■	■	■	■
SJ3530	Hook	High Tack Rubber	5,000	Nylon	Yellow, 3 mil (mm) Polyethylene Film No Print	0.14 in. (3.6mm)	90 (32)	■		■	■	■	Indoor		■	■		■
SJ3531	Loop	High Tack Rubber	5,000	Nylon	Yellow, 3 mil (mm) Polyethylene Film No Print	0.14 in. (3.6mm)	90 (32)	■		■	■	■	Indoor		■	■		■
No Adhesive																		
SJ3401	Loop	None	5,000	Nylon	None	0.12 in. (3.0mm)	200 (93)	●	●	●	●	●	Indoor/ Outdoor		●	●		●
SJ3402	Hook	None	5,000	Nylon	None	0.12 in. (3.0mm)	200 (93)	●	●	●	●	●	Indoor/ Outdoor		●	●		●
Low Profile/Thin																		
SJ3506	Hook	Acrylic	25	Polypropylene	Brown #83 Polykraft Green Print	0.034 in. (0.84mm)	158 (70)	■	■	■	▲	▲	Indoor/ Outdoor			■		■
SJ3507	Loop	Acrylic	25	Polyester	Brown #83 Polykraft Green Print	0.034 in. (0.84mm)	158 (70)	■	■	■	▲	▲	Indoor/ Outdoor			■		■
SJ3001	Back-to-Back Hook and Loop	None	10	Polypropylene/ Nylon	None	0.053 in. (1.3mm)	200 (93)	□	□	□	□	□	Indoor	□	□	□	□	□
Flame Resistant																		
SJ3519FR	Hook	Flame Resistant	5,000	FR Nylon	White, 3 mil (0.08mm) Polyethylene Film 3M Red Print	0.14 in. (3.6mm)	158 (70)	■		■	■	■	Indoor	■	■	■	■	
SJ3518FR	Loop	Flame Resistant	5,000	FR Nylon	White, 3 mil (0.08mm) Polyethylene Film 3M Red Print	0.14 in. (3.6mm)	158 (70)	■		■	■	■	Indoor	■	■	■	■	
SJ3419FR	Hook	None	5,000	FR Nylon	None	0.12 in. (3.0mm)	200 (93)	●	●	●	●	●	Indoor/ Outdoor	●	●	●		
SJ3418FR	Loop	None	5,000	FR Nylon	None	0.12 in. (3.0mm)	200 (93)	●	●	●	●	●	Indoor/ Outdoor	●	●	●		

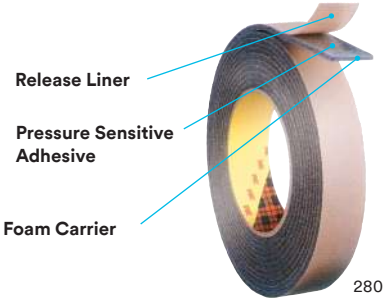
Note: The technical information and data on these pages should be considered representative or typical only and should not be used for specification purposes.

3M™ Single Coated Foam Tapes

Roll-on Protection Against Moisture, Dust, Noise, Vibration and Impact

3M™ Single Coated Foam Tapes are strips of foam in a roll with high strength acrylic adhesive on one side of the foam. Cut to length, they seal, damp, insulate or cushion. For die-cut shapes, 3M™ Single Coated Foam Tape Series 4100, 4300, and 4700 is protected by a liner. With 3M™ Single Coated Foam Tape Series 4500, the liner is on the non-adhesive side to minimize foam stretching while placing the gasket.

Urethane foams seal, cushion, damp sound, and absorb vibration. Weather-resistant vinyl foams seal out light and dust when under compression and remain flexible even when exposed to variable temperatures and UV.




276

In a computer printer, 3M™ Urethane Foam Tape 4318 is a very soft, low density cushion that helps absorb impact and vibration.


277

When compressed 50%, the open cell construction of 3M™ Urethane Foam Tape 4314 provides an air barrier and cushion in electronic equipment.



278

To help prevent light leakage around a sign perimeter, 3M™ Vinyl Foam Tape 4726 attaches securely on contact.


279

In outdoor mailboxes, strips of 3M™ Vinyl Foam Tape 4504 helps seal the inside from rain and dirt. Vinyl provides excellent aging characteristics and remains flexible.

Product	Color	Description	Adhesive	Approximate Thickness in. (mm)	Density lb./cu. ft (kg/cu. m)	Tensile Strength psi (kPa)	Compression Deflection 25% psi (kPa)	Compression Set % Loss	Temperature Tolerance	
									Short-term	Long-term
Urethane										
4104*	Natural White	Firm, rigid, open cell urethane foam for cushioning. Allows air or gas vapors to pass through. Not recommended for outdoor use.	350 Acrylic	0.250 (6)	12 (192)	115 (795)	4 (27.6)	8	350°F (176°C)	200°F (93°C)
4108				0.125 (3)	16 (256)	130 (895)	6 (82.8)	8		
4116				0.062 (1.5)	18 (288)	115 (795)	12 (82.8)	12		
4314	Charcoal Gray	Soft conformable, low density foam for sealing out air, dust and light when compressed 30%. Used to help damp sound and absorb vibration in electronics.	430 Acrylic	0.250 (6)	2 (32)	25 (170)	0.3 (2.1)	5	250°F (121°C)	150°F (66°C)
4317*				0.375 (9.5)	2 (32)	25 (170)	0.3 (2.1)	5		
4318				0.125 (3)	2 (32)	25 (170)	0.3 (2.1)	5		
Vinyl										
4504*	Black	Durable, flexible, closed cell vinyl foams with excellent aging characteristics. Weather resistant. Application ideas include dust and moisture seal.	430 Acrylic	0.250 (6)	20 (320)	90 (620)	4 (27.6)	15	250°F (121°C)	150°F (66°C)
4508*				0.125 (3)	20 (320)	100 (690)	4 (27.6)	15		
4516*				0.062 (1.5)	25 (400)	130 (895)	4 (27.6)	15		
4714*	Black	Same as above except lower density and liner over PSA.	430 Acrylic	0.250 (6)	14 (225)	75 (515)	2 (13.8)	5	250°F (121°C)	150°F (66°C)
4718*				0.125 (3)	20 (320)	100 (690)	4 (27.6)	15		
4726*				0.062 (1.5)	20 (320)	130 (895)	3 (20.7)	15		

*Meets requirements of UL 94HBF.

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

3M™ Converter Markets Center

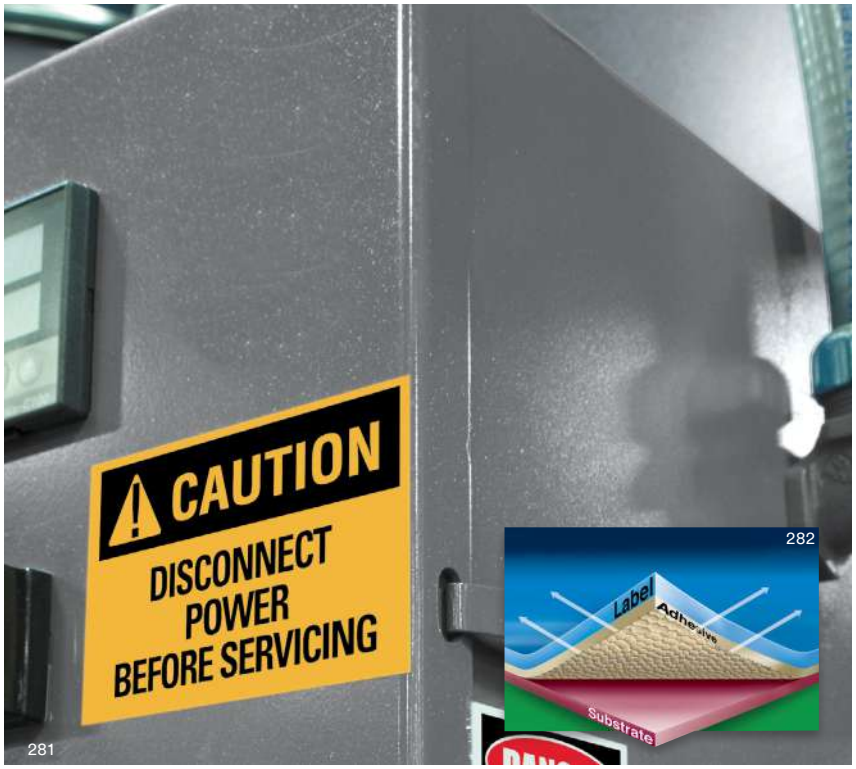
Converting 3M Technology into Successful Applications

3M Converters match 3M technologies to customer requirements with the exact form, fit, and functionality for application success in identifying, bonding, protecting, and electrical shielding or conducting.

Converter expertise includes part design, quick prototyping, laminating adhesives to various surfaces, printing labels and durable graphics, slitting, and die-cutting.

3M technologies include the following:

- 3M™ Performance Label Materials
- 3M™ Thin Attachment Tapes
- 3M™ Adhesive Transfer and Double Coated Bonding Tapes such as 3M™ VHB™ Tapes
- 3M™ Single Coated Tapes such as crepe masking tape
- 3M™ Reclosable Fasteners
- 3M™ Bumpon™ Protective Products
- And more



3M™ Performance Label Materials with Structured Adhesive — With unique microchannels throughout the structured adhesive, air flows freely from between the label adhesive and substrate. Hand-applied large labels go on smoothly and stay that way permanently without unsightly wrinkles and bubbles.



For permanent attachment of die-cut durable graphics, 3M™ Low Surface Energy (LSE) Acrylic Adhesive 300 bonds on contact and stays tight on low surface energy plastics, powder coated paints, and lightly oiled metals.



Dimensionally-stable 3M™ Double Coated Tapes are pre-applied to foam gasketing material and die-cut to precise shape and size for fast, easy application.



3M converters can slit 3M™ Masking Tapes to specified widths and roll lengths, as well as die-cut to unique shapes for specialized applications.



For hundreds to thousands of openings and closings, 3M converters customize 3M™ Reclosable Fasteners to meet exact customer requirements for form, fit, mating strength, and liner.



For a little touch of quiet and skid resistance on a PDA or other small product, custom 3M™ Bumpon™ Protective Products are scaled for the design. Adhesive is formulated to hold even a small bonding surface.



From the 150,000 possible combinations of adhesives, facestocks, overlaminates and liners, 3M has many choices for durable labels requiring UL and/or RoHS compliance.

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Notes:

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