3M Science. Applied to Life.™



Solutions for your assembly challenges.

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3M Industrial Adhesives and Tapes

Design & Production Guide | January 2016

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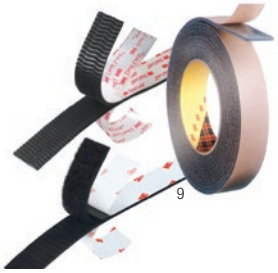
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What can 3M™ Adhesives and Tapes do for your product and process?

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:

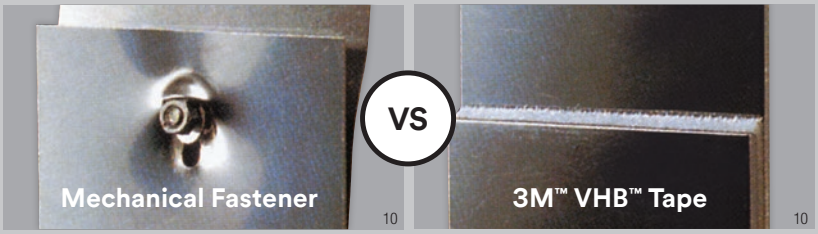
- Reduce process steps such as weld grinding and sealing individual penetrations from screws, nuts and bolts.
- Use thinner, lighter or less expensive materials that cannot be welded or fastened traditionally.
- Potentially lower capital investment. Many adhesives and tapes do not require major capital 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



3M™ VHB™ Tapes



3M™ Scotch-Weld™ Structural Adhesives



3M™ Adhesive Sealants



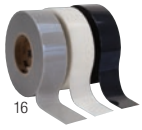
3M™ Adhesive Transfer Tapes



3M™ Contact and Spray Adhesives



3M™ Double Coated Tapes



3M™ Extreme Sealing Tapes



3M™ Hot Melt Adhesives



3M™ Reclosable Fasteners



3M™ Scotch-Weld™ Gasket Makers



3M™ Scotch-Weld™ Instant Adhesives



3M™ Scotch-Weld™ PUR Adhesives



3M™ Scotch-Weld™ Retaining Compound



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 6 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:



Panel to Frame/ Stiffener to Panel
pg 4



Small Joint Assembly
pg 6



Large Surface Lamination
pg 8



Mounting and Trim Attachment
pg 10



Gasket Attachment
pg 12



Sealing
pg 14



Potting and Encapsulating
pg 14

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



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

Panel to Frame: Decorative or load bearing panel that is applied to 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



3M™ VHB™ Tapes (pg 62–69)

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.



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

Acrylic, epoxy and urethane structural adhesives 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.



3M™ Adhesive Sealants (pg 58–59)

Acrylic, polyurethane, nitrile and hybrid are 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.



3M™ Reclosable Fasteners (pg 86–89)

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.

Good = ⊕ Better = ⊕⊕ Best = ⊕⊕⊕

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

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	4941, RP45, 5952 LSB60NS *550FC + AC61 SJ3550/51/52, SJ3571/72	*4941, *RP45, 5952 LSB60NS *550FC + AC61 SJ3540/41/42, SJ3526N/27N	*4941, *RP45, *5952 LSB60NS *590, *560, *760 SJ3560/61/62, SJ3571/72	*4941, *RP45, 5952 LSB60NS *560, *760 SJ3550/51/52, SJ3571/72	*4941, *RP45, *5952 DP8010 Blue *560, *760 SJ3540/41/42, SJ3526N/27N
Paints	*4941, *RP45, 5952 DP8810NS *550, *560, *760	*4941, *RP45, 5952 DP8810NS *550, *560, *760	*4941, *RP45, *5952 LSB60NS *590, *560, *760	*4941, *RP45, 5952 DP8810NS *560, *760	*4941, *RP45, *5952 DP8010 Blue *560, *760
Glass	*4941, *RP45, *5952 DP460 *590	*4941, *RP45, *5952 LSB60NS *590, *560, *760	*4941, *RP45, *5952 DP460 *590	*4941, *RP45, 5952 DP100 Plus Clear *560, *760	*4941, *RP45, *5952 DP8010 Blue *560, *760
Plastics: HSE, MSE	*4941, *RP45, 5952 DP8405NS *560, *760	*4941, *RP45, 5952 DP8810NS *560, *760	*4941, *RP45, *5952 DP8010 Blue *560, *760	*4941, *RP45, 5952 DP8405NS *560, *760	*4941, *RP45, *5952 DP8010 Blue *560, *760
Plastics: LSE	*4941, *RP45, 5952 DP8010 Blue *560, *760	*4941, *RP45, *5952 DP8010 Blue *560, *760	*4941, *RP45, *5952 DP8010 Blue *560, *760	*4941, *RP45, *5952 DP8010 Blue *560, *760	*4941, *RP45, *5952 DP8405NS *560, *760

Key
- 3M™ VHB™ Tapes
- 3M™ Scotch-Weld™ Structural Adhesives
- 3M™ Adhesive Sealants
- 3M™ Reclosable Fasteners

*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 pages 66 for a selection of products.


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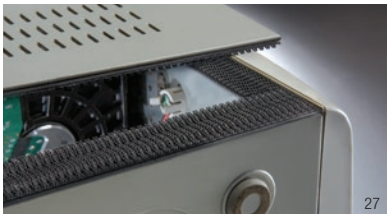
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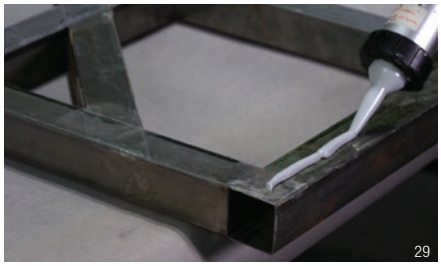
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This guide lists products that are commonly used for this specific application. It is important that the customer evaluates these suggested products in their specific application.

What are Small Joint Assemblies?



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

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



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

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



3M™ Scotch-Weld™ Instant Adhesives (pg 29)

One part solvent-free adhesive that reaches handling strength in 5–10 seconds. Best for small bondlines (<10cm^2). Commonly used on rubbers and plastics. Very tight bondlines are achievable with near instant strength.



3M™ Hot Melt Adhesives (pg 44–45)

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



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

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



3M™ Scotch-Weld™ Retaining Compounds (pg 33)

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



3M™ Scotch-Weld™ Threadlockers (pg 32)

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.

Good = ⊕ Better = ⊕⊕ Best = ⊕⊕⊕

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	⊕⊕⊕	⊕⊕	⊕	⊕⊕⊕	⊕⊕
Temperature and Solvent Resistance	⊕⊕⊕	⊕	⊕⊕	⊕⊕⊕	⊕⊕
Aesthetics	⊕	⊕⊕⊕	⊕⊕	⊕⊕	⊕⊕
Rate of Strength Build	⊕	⊕⊕⊕	⊕⊕⊕	⊕⊕	⊕⊕
Rework	⊕	⊕⊕	⊕⊕	⊕	⊕⊕⊕

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)	DP420NS 3747, 3789 RT09 TL62	DP8805NS 3747, 3764	DP420NS 3747, 3789	2216	DP8805NS 3764, 3747 TE040, EZ250150	DP8010 Blue 3748, 3764 TE040, EZ250150	DP100 Plus 3792 EZ25150
Metal (Painted)	DP8805NS PR100 3747, 3764	DP100 Plus PR100 3764, 3792	DP620NS *PR100	DP8805NS PR100 3748, 3764 TE040, EZ250150	DP8010 Blue *PR100 3748, 3764 TE040, EZ250150	DP620NS SI100 3764, 3792 EZ25150	
Glass, Ceramic, Stones	DP100 Plus PR100 3792	DP100 Plus *PR100	DP100 Plus PR100 3748, 3764	DP8010 Blue *PR100 3748, 3764	DP420NS SI100 3792 EZ250120, EZ250150		
Rubber, Elastomers	*PR100	DP620NS *PR100	*PR100	DP604NS *SI100			
Plastics: HSE, MSE	DP8405NS, DP8805NS PR100 3748, 3764 EZ250150	DP8010 Blue *PR100 3748, 3764	DP620NS SI100 3764, 3792 EZ250150				
Plastics: LSE	DP8010 Blue *PR100 3748, 3764	DP8010NS *SI100 3764, 3792 EZ250150					
Wood	DP100 SI100 3792 EZ250120, EZ250060						

Key
- 3M™ Scotch-Weld™ Structural Adhesives
- 3M™ Scotch-Weld™ Instant Adhesives
- 3M™ Hot Melt Adhesives
- 3M™ Scotch-Weld™ PUR Adhesives
- 3M™ Scotch-Weld™ Retaining Compounds
- 3M™ Scotch-Weld™ Threadlockers

*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?



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



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

Acrylic, epoxy and urethane structural adhesives hold over 1,000 psi in overlap shear strength. Best suited for applications where high load-bearing strength is required.



3M™ Contact and Spray Adhesives (pg 54–57)

Solvent and water based adhesives 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.



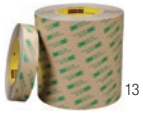
3M™ Hot Melt Adhesives (pg 44–45)

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.



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

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.



3M™ Adhesive Transfer Tapes (pg 78–81)

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.

Good = ⊕ Better = ⊕⊕ Best = ⊕⊕⊕

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	⊕⊕⊕	⊕	⊕⊕	⊕⊕⊕	⊕⊕
Temperature and Solvent Resistance	⊕⊕⊕	⊕	⊕⊕	⊕⊕⊕	⊕
Aesthetics and Read Through	⊕	⊕⊕⊕	⊕⊕	⊕⊕	⊕⊕⊕
Speed and Convenience of Application	⊕	⊕⊕⊕	⊕⊕	⊕⊕	⊕⊕
Rate of Strength Build	⊕	⊕⊕⊕	⊕⊕⊕	⊕⊕	⊕⊕⊕

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	■ LSB60 ■ 94 CA, 1357 ■ 6111/6111HT ■ TS230, TS115HGS ■ F9473PC, 9485PC	■ 2216 ■ 1300, 847 ■ *468MP, 950	■ 74, 100NF ■ 6111/6111HT ■ 6035PC, 950	■ 2216 ■ 4491, 1000NF ■ F9467U, F9465PC	■ 2216 ■ 94 CA, 4475 ■ 6111/6111HT, 6116 ■ TS230, TS115 ■ 468MP, 9472LE	■ 2216 ■ 94 CA, 1357 ■ 6111/6111HT ■ TS230, TS115HGS ■ 6035PC, 468MP
Rubber	■ 2216 ■ 4799 ■ TS230 ■ *468MP, 950	■ 2216 ■ 4799 ■ TS230, TS115 ■ 6035PC, 950	■ 4799 ■ TS230, TS115 ■ 6035PC, 950	■ 2216 ■ 4799 ■ TS230, TS115 ■ *F9467U, F9465PC	■ 2216 ■ 4799 ■ TS230, TS115 ■ *468MP, 9472LE	■ 2216 ■ 4799 ■ TS230, TS115HGS ■ *468MP, 950
Foam and Cloth	■ 74, 100NF ■ 6111/6111HT, 6116 ■ TS230, TS115 ■ 6035PC, 950	■ 4491, 1000NF ■ TS230, TS115 ■ 950, F9465PC	■ 77, 74 ■ 6111/6111HT, 6116 ■ TS230, TS115 ■ 950, 6035PC	■ 77, 1000NF ■ 6111/6111HT, 6116 ■ TS230, TS115HGS ■ 950, 6035PC		
Plasticized Vinyl	■ 2216 ■ 4491, 1300 ■ TS230, TS115 ■ F9467U, F9465PC	■ 2216 ■ 4491, 1300 ■ TS230, TS115 ■ F9467U, F9465PC	■ 2216 ■ 4491, 1000NF ■ TS230, TS115HGS ■ F9467U, F9465PC			
Plastics	■ 2216 ■ 94 CA, 4475 ■ 6111/6111HT, 6116 ■ TS230, TS115 ■ 9472LE, 468MP	■ 2216 ■ 94 CA, 4475 ■ 6111/6111HT, 6116 ■ TS230, TS115HGS ■ 9472LE, 468MP				
Wood	■ 2216 ■ 94 CA, 30NF ■ 6111/6111HT, 6116 ■ TS230, TS115HGS ■ 6035PC, 468MP					

Key
- ■ 3M™ Scotch-Weld™ Structural Adhesives
- ■ 3M™ Contact and Spray Adhesives
- ■ 3M™ Hot Melt Adhesives
- ■ 3M™ Scotch-Weld™ PUR Adhesives
- ■ 3M™ Adhesive Transfer Tapes

*Primers may also be required in some cases. See specific product pages for primer details.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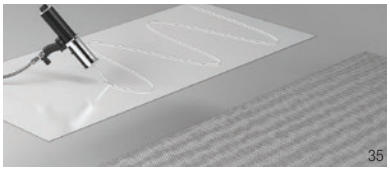
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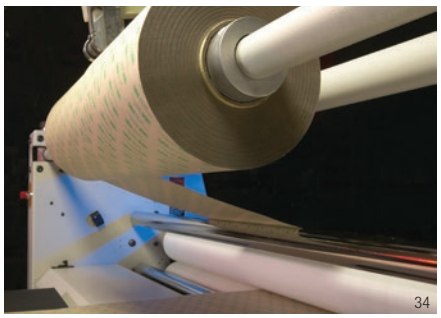
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This guide lists products that are commonly used for this specific application. It is important that the customer evaluates these suggested products in their specific application.

What are Mounting and Trim Attachment Assemblies?



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



3M™ VHB™ Tapes (pg 62–69)

High-strength bonding tapes are a proven alternative to screws, rivets, welds and other mechanical fasteners. Can pre-apply to trim for production flexibility. Ideal for dissimilar substrates.



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

Acrylic, epoxy and urethane structural adhesives 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).



3M™ Scotch-Weld™ Instant Adhesives (pg 29)

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™ Hot Melt Adhesives (pg 44–45)

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



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

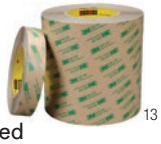
One component, hot applied thermosetting adhesive with immediate strength and holding power. Final cured strength over 1,000 psi. Best for wood and plastic.

3M™ Reclosable Fasteners (pg 86–89)



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.

3M™ Adhesive Transfer Tapes (pg 78–81)



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.

3M™ Double Coated Tapes (pg 71–76)



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 bondlines. 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.

Good = ⊕ Better = ⊕⊕ Best = ⊕⊕⊕

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	⊕⊕	⊕⊕⊕	⊕⊕	⊕⊕	⊕⊕⊕	⊕	⊕	⊕
Temperature and Solvent Resistance	⊕⊕	⊕⊕⊕	⊕	⊕	⊕⊕⊕	⊕⊕	⊕⊕	⊕⊕
Aesthetics	⊕⊕⊕	⊕	⊕⊕	⊕⊕	⊕⊕	⊕⊕	⊕⊕⊕	⊕⊕⊕
Repositionability During Application	⊕	⊕⊕⊕	⊕	⊕	⊕⊕	⊕⊕	⊕	⊕⊕
Rate of Strength Build	⊕⊕⊕	⊕	⊕⊕⊕	⊕⊕⊕	⊕⊕	⊕⊕⊕	⊕⊕⊕	⊕⊕⊕
Removable After Cure	⊕⊕	N/A	⊕	⊕	N/A	⊕⊕⊕	⊕⊕	⊕⊕

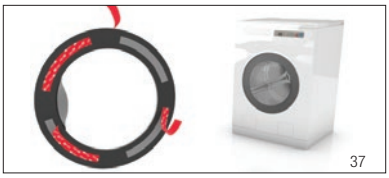
Mounting and Trim Attachment Assembly Solutions

+	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	4941, 5952, RP45 DP8805NS 3789, 3747 TE040, EZ250150 SJ3550/51/52, SJ3571/72 468MP, F9473PC 9500PC, XP6114	*4941, 5952, *RP45 DP8810NS 3764, 3747 TE040, EZ250150 SJ3540/41/42, SJ3526N/27N 9472LE, 9485PC 9500PC, XP6114	*4941, *5952, *RP45 DP420NS 3789, 3747 SJ3560/61/62, SJ3571/72 468MP, F9473PC 9500PC, XP6114	*4941, 5952, *RP45 DP8805NS 3764, 3747 TE040, EZ250150 SJ3550/51/52, SJ3571/72 468MP, 9472LE 9500PC, XP6114	*4941, *5952, *RP45 DP8010 Blue 3764, 3747 SJ3540/41/42, SJ3526N/27N 9472LE, 9485PC 9500PC, XP6114	3792 EZ250150
Paints	*4941, 5952, *RP45 DP8810NS PR100 3764, 3792 EZ250150 SJ3540/41/42, SJ3526N/27N 9472LE, 468MP 9832, 9500PC	*4941, *5952, *RP45 DP420NS 3764, 3792 EZ250150 SJ3560/61/62, SJ3571/72 9472LE, 468MP 9832, 9500PC	*4941, 5952, *RP45 DP8410NS PR100 3747, 3792 EZ250150 SJ3550/51/52, SJ3571/72 468MP, 9472LE 9832, 9500PC	*4941, *5952, *RP45 DP8010 Blue *PR100 3748, 3764 SJ3540/41/42, SJ3526N/27N 9472LE, 9485PC 9832, 9500PC	3764, 3792 EZ25150	
Glass	*4941, *5952, *RP45 DP100 Plus Clear 3792 SJ3560/61/62, SJ3571/72 468MP, F9473PC 9500PC, XP6114	*4941, 5952, *RP45 DP100 Plus 3748, 3792 EZ250150 SJ3550/51/52, SJ3571/72 468MP, 9485PC 9500PC, XP6114	*4941, *5952, *RP45 DP8010 Blue *PR100 3748, 3764 SJ3540/41/42, SJ3526N/27N 9472LE, 9485PC 9500PC, XP6114	3792 EZ250120, EZ250150		
Plastics: HSE, MSE	*4941, 5952, *RP45 DP8405NS PR100 3748, 3792 EZ250150, EZ250030 SJ3550/51/52, SJ3571/72 468MP, 9472LE 9500PC, 9832	*4941, *5952, *RP45 DP8010 Blue *PR100 3748, 3764 SJ3540/41/42, SJ3526N/27N 9472LE, 9485PC 9500PC, 9832	3764, 3792 EZ250150			
Plastics: LSE	*4941, *5952, *RP45 DP8010 Blue *PR100 3748, 3764 SJ3540/41/42, SJ3526N/27N 9472LE, 9485PC 9500PC, XP6114	3764, 3792 EZ250150				
Wood	3792 EZ250120, EZ250060					

Key

- 3M™ VHB™ Tapes
- 3M™ Scotch-Weld™ Structural Adhesives
- 3M™ Scotch-Weld™ Instant Adhesives
- 3M™ Hot Melt Adhesives
- 3M™ Scotch-Weld™ PUR Adhesives
- 3M™ Reclosable Fasteners
- 3M™ Adhesive Transfer Tapes
- 3M™ Double Coated Tapes

*Primers may also be required in some cases. See specific product pages for primer details.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For 3M™ VHB™ Tape applications in the Window and Door market, refer to page 68 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.

Gasketing: 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 62–69)

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 29)

One part solvent-free cyanoacrylate (CA) adhesive that reaches handling strength in 5–30 seconds. Best for small very tight bondlines (<10cm^2). Commonly used on rubbers and plastics.



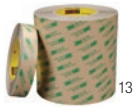
3M™ Scotch-Weld™ Gasket Makers (pg 33)

One-part anaerobic adhesives can be applied as a curing liquid gasket between complex metal shapes, replacing pre-formed gaskets.



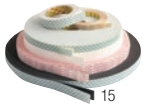
3M™ Contact and Spray Adhesives (pg 54–57)

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 78–81)

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 71–76)

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.

Good = ⊕ Better = ⊕⊕ Best = ⊕⊕⊕

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	⊕⊕⊕	N/A	⊕⊕	⊕	⊕
Temperature and Solvent Resistance	⊕⊕⊕	⊕	⊕⊕⊕	⊕⊕⊕	⊕⊕⊕	⊕⊕⊕
Ease of Application	⊕⊕⊕	⊕⊕	⊕⊕	⊕	⊕⊕⊕	⊕⊕⊕
Rate of Strength Build	⊕⊕⊕	⊕⊕⊕	⊕	⊕⊕⊕	⊕⊕⊕	⊕⊕⊕

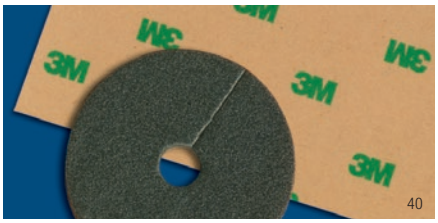
Gasket Attachment Assembly Solutions

+	Metal	Glass	Paint	Plastics: HSE	Plastics: LSE
Rubber (EPDM, Santoprene®)	*PR100 4799 *468MP, 950 9832, XT6110	4799 *468MP, 950 9832, XT6110	*PR100 4799 *468MP, 950 9832, XT6110	*PR100 4799 *468MP, 950 9832, XT6110	*PR100 4799 *9472LE, 950 9832, XT6110
Silicone Gaskets	*PR100 GM18 replace gasket 91022 9731, 96042	91022 9731, 96042	*PR100 91022 9731, 96042	*PR100 91022 9731, 96042	*PR100 91022 9731, 96042
Neoprene	*PR100 6035PC, 950 9832, XT6110	1300 6035PC, 950 9832, XT6110	*PR100 1300 6035PC, 950 9832, XT6110	*PR100 1300 6035PC, 950 9832, XT6110	*PR100 90 6035PC, 950 9832, XT6110
Nylon	PR100 9472LE, XP2112	1099 9472LE, XP2112	PR100 1099 9472LE, XP2112	PR100 1099 9472LE, XP2112	*PR100 90 9472LE, XP2112
PTFE	*PR100 GM18 replace gasket 950	9472LE, XP2112	*PR100 9472LE, XP2112	*PR100 9472LE, XP2112	*PR100 9472LE, XP2112

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.

Key
- 3M™ Scotch-Weld™ Instant Adhesives
- 3M™ Scotch-Weld™ Gasket Makers
- 3M™ Contact and Spray Adhesives
- 3M™ Adhesive Transfer Tapes
- 3M™ Double Coated Tapes

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



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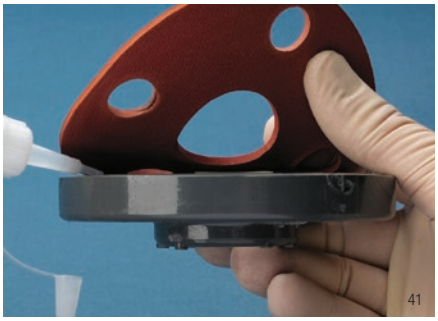
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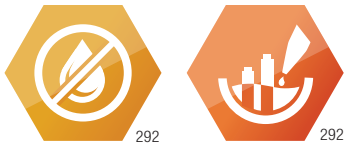
This guide lists products that are commonly used for this specific application. It is important that the customer evaluates these suggested products in their specific application.

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



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



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.



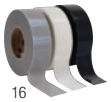
3M™ Hot Melt Adhesives (pg 44–45)

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



3M™ Adhesive Sealants (pg 58–59)

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.



3M™ Extreme Sealing Tapes (pg 70)

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.

Good = ⊕ Better = ⊕⊕ Best = ⊕⊕⊕

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

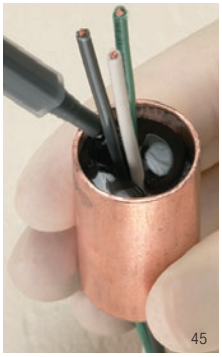
+	Metals (Aluminum, Steel, Stainless, Galvanized)	Paints (Powder Coat, Painted Metal, Composite Panel)	Glass	Plastics: HSE, MSE (ABS, Acrylic, Polycarbonate, Nylon)	Plastics: LSE (Polypropylene, Polyethylene)
Metals	2216, DP270 3797, 3748 VO *540, *740 4411B, 4411N, 4411G	2216, DP604NS 3797, 3748 VO *540, *740 4411B, 4411N, 4411G	DP125 Gray, DP100 Plus Clear *540, *740 4411B, 4411N, 4411G	2216, DP604NS 3797, 3748 VO *540, *740 4411B, 4411N, 4411G	DP8010 Blue 3797, 3748 VO *540, *740 *4411B, *4411N, *4411G
Paints		2216, DP604NS *540, *740 4411B, 4411N, 4411G	DP125 Gray, DP100 Plus Clear *540, *740 4411B, 4411N, 4411G	2216, DP604NS *540, *740 4411B, 4411N, 4411G	DP8010 Blue *540, *740 *4411B, *4411N, *4411G
Glass			DP125 Gray, DP100 Plus Clear *540, *740 4411B, 4411N, 4411G	DP125 Gray, DP100 Plus Clear *540, *740 4411B, 4411N, 4411G	DP8010 Blue *540, *740 *4411B, *4411N, *4411G
Plastics: HSE, MSE				2216, DP604NS 3797, 3748 VO *540, *740 4411B, 4411N, 4411G	DP8010 Blue 3797, 3748 VO *540, *740 *4411B, *4411N, *4411G
Plastics: LSE					DP8010 Blue 3797, 3748 VO *540, *740 *4411B, *4411N, *4411G

Key

- 3M™ Scotch-Weld™ Structural Adhesives
- 3M™ Hot Melt Adhesives
- 3M™ Adhesive Sealants
- 3M™ Extreme Sealing Tapes

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







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.

Notes:

The best formulas deliver the best performance.

Powerful Adhesive 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 Adhesives

Improving product and process.

In today's world, successful new products demand advancements in both design and manufacturing processes. 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 50 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.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Advanced product designs and process innovations.

The benefits of designing and building products with 3M Scotch-Weld Structural Adhesives help drive product success.

- **Freedom of Design:** Improve aesthetics, reduce weight and noise, enhance corrosion and fatigue resistance and more.
- **Process Efficiencies:** Speed production with quiet, fast and easy manufacturing processes.
- **Low Odor Advantages:** Improve your environment with 3M's low odor structural adhesives.
- **Dispensing Options:** Dispense by hand or with automated equipment.


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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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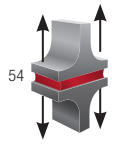
Simplifying adhesive decisions for your application.

What materials will be bonded?
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?

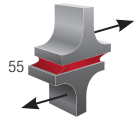
What is the preferred cure speed?
The chosen structural adhesive must have enough work life (open time, pot life) to allow proper mixing and application of the adhesive and assembling of the bonded parts. Smaller assemblies or shorter cycle time production processes may be able to use a faster curing 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.

What surface preparation will be required?
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.

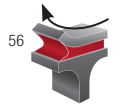
What types of joints are best for structural adhesives?
Joint designs that put the adhesive bond under shear, tension, or compression forces will provide the highest strength. Designs that tend to apply peel or cleavage forces to the adhesive, where the applied stresses are not distributed over the entire 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.



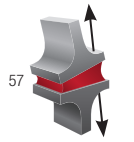
Tensile is pull exerted equally over the entire joint. Pull direction is straight and away from the adhesive bond.



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



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



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.

How are structural adhesives used and applied?
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 dispense cartridge mixing systems.

What are the general characteristics of the different types of structural adhesives?
All structural adhesives provide at least 1,000 psi of overlap shear strength to aluminum, but each 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). Generally, they have the highest strength and overall performance, and provide the best resistance to high temperatures, solvents and outdoor weathering. They adhere well to metals, woods and concrete, and 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, including 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, have excellent impact resistance and good adhesion to most plastics. They also bond well to woods, concrete and rubbers, but 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 have lower flexibility, peel strength and impact resistance compared to other structural adhesives. They are generally used for 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. They keep your factory running efficiently, reducing maintenance and leakage. They do not bond well to glass, plastics or rubbers, and are primarily used for locking threads and sealing pipe connections.

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



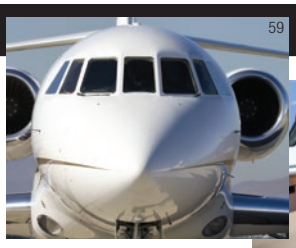
Aerospace

Key Benefits

- Flame, smoke and toxicity compliance
- UL94 V-0 rated formulation
- Strong, yet flexible formulations

Lead Products

2216 Gray, DP100FR, DP640







Appliance

Key Benefits

- Bonds powder coated materials
- Noise dampening
- Joins plastic and glass to metals

Lead Products

DP125 Gray, DP8810NS, TL42







Electronics

Key Benefits

- Low halogen
- Fast curing
- Potting

Lead Products

DP420LH, DP270, DP8805NS, PR100







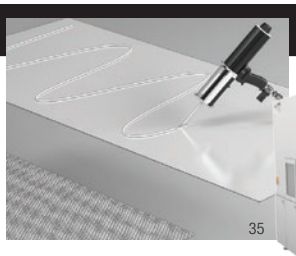
Metalworking

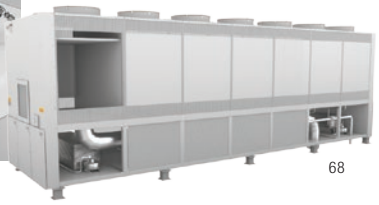
Key Benefits

- High strength
- Reduces surface preparation
- Replaces mechanical fasteners

Lead Products

DP420NS Black, DP8410NS, LSB60NS







Plastic, Composite & Rubber

Key Benefits

- Bonds low surface energy plastics without priming
- Impact resistant composite bonding

Lead Products

DP8010 Blue, DP420NS, PR100







Signage

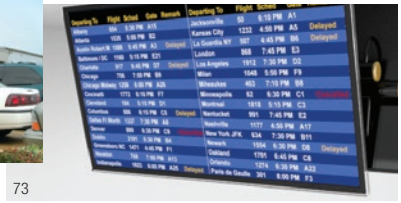
Key Benefits

- Bonds a variety of materials
- Weather resistant
- UL recognized

Lead Products

DP8805NS, DP8405NS, DP100 Plus







Specialty Vehicle

Key Benefits

- Reduces weight
- High strength
- Vibration and fatigue resistant

Lead Products

DP8810NS, LSB60NS, TL42







Sporting Goods

Key Benefits

- Excellent impact resistance
- High strength for small joints
- Bonds rubber, composites and metals

Lead Products

DP420NS Black, DP8810NS, PR100





3M™ Scotch-Weld™ Structural Adhesives



	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 at 75°F (24°C)	Overlap Shear (psi) -67°F (-55°C)	Overlap Shear (psi) 75°F (24°C)	Overlap Shear (psi) 180°F (82°C)	Size	UPC	Stock #
	3M™ Scotch-Weld™ Rigid Epoxies												
*	**DP100** **100** (Clear)	General purpose. Rigid bonds.	1:1	13,000	5 minutes	20 minutes	2	900	1,500	300	50mL 200mL 400mL 5 gal. pail B 5 gal. pail A	00-021200-22648-9 00-021200-87260-0 00-021200-87261-7 00-021200-82344-2 00-021200-82345-9	62-3575-1435-5 62-3575-3830-5 62-3575-3530-1 62-3575-8531-4 62-3675-8531-2
	DP100FR **100FR** (Cream)	Flame retardant. UL94 V-0 rating.	1:1	80,000	6 minutes	20 minutes	2	1,250	2,200	800	50mL 200mL 400mL 5 gal. pail B 5 gal. pail A	00-048011-56742-6 00-048011-56744-0 00-048011-56743-3 00-048011-57229-1 00-048011-57230-7	62-3531-1435-8 62-3531-3830-8 62-3531-3530-4 62-3531-8530-9 62-3631-8530-7
	DP100NS **100NS** (Translucent)	General purpose. Non-sag.	1:1	95,000	5 minutes	20 minutes	2	900	1,500	300	50mL 200mL 400mL 5 gal. pail B 5 gal. pail A	00-021200-82255-1 00-021200-87264-8 00-021200-87265-5 00-021200-82256-8 00-021200-82257-5	62-3265-1435-3 62-3265-3830-3 62-3265-3530-9 62-3265-8530-4 62-3365-8530-2
*	**DP190** (Gray)	High performance. Slightly flexible bonds.	1:1	80,000	90 minutes	10 hours	50	1,500	2,500	400	50mL 200mL 400mL	00-021200-22647-2 00-021200-87840-4 00-021200-87841-1	62-3553-1435-2 62-3553-3830-2 62-3553-3530-8
	DP270 **270** (Black)	Rigid potting compound. Non-corrosive.	1:1	12,000	60 minutes	3 hours	2	1,200	2,500	300	50mL 200mL 400mL 1 gal. kit 5 gal. pail B 5 gal. pail A	00-021200-82262-9 00-021200-87836-7 00-021200-87837-4 00-021200-82263-6 00-021200-82264-3 00-021200-82265-0	62-3266-1435-1 62-3266-3830-1 62-3266-3530-7 62-3266-7430-6 62-3266-8530-2 62-3366-8530-0
	DP270 **270** (Clear)	Rigid potting compound. Non-corrosive.	1:1	12,000	60 minutes	3 hours	2	1,200	2,500	300	50mL 200mL 400mL 5 gal. pail B 5 gal. pail A	00-021200-82248-3 00-021200-87834-3 00-021200-87835-0 00-021200-82250-6 00-021200-82251-3	62-3262-1435-0 62-3262-3830-0 62-3262-3530-6 62-3262-8530-1 62-3362-8530-9
	1751 B/A (Gray)	Excellent void filler. Rigid bonds.	3:2	700,000	45 minutes	10 hours	4	1,400	2,000	500	2 oz. tube kit 1 pt. kit 1 qt. kit 1 gal. kit 5 gal. pail B 5 gal. pail A	00-021200-20100-4 00-021200-20101-1 00-021200-20103-5 00-021200-20105-9 00-021200-20108-0 00-021200-20120-2	62-1751-0530-3 62-1751-5430-1 62-1751-6430-0 62-1751-7430-9 62-1751-8530-5 62-1752-8530-3
	1838 B/A (Green)	Multi-purpose. Rigid bonds.	4:5	400,000	60 minutes	8 hours	4	1,500	3,000	500	2 oz. tube kit 1 pt. kit 1 qt. kit 1 gal. kit 5 gal. pail B 5 gal. pail A	00-021200-20148-6 00-021200-20150-9 00-021200-20152-3 00-021200-20154-7 00-021200-20155-4 00-021200-20160-8	62-1838-0530-8 62-1838-5430-6 62-1838-6430-5 62-1838-7430-4 62-1838-8530-0 62-1839-8530-8
	1838 B/A (Tan)	Multi-purpose. Rigid bonds.	5:6	250,000	60 minutes	8 hours	4	1,500	2,000	500	1 qt. kit 5 gal. pail B 5 gal. pail A	00-021200-22599-4 00-021200-22600-7 00-021200-22603-8	62-1614-6435-9 62-1614-8535-4 62-1752-8535-2
	1838L B/A (Translucent)	Multi-purpose. Rigid bonds.	1:1	10,000	60 minutes	8 hours	4	2,000	2,500	300	2 oz. tube kit 1 qt. kit 5 gal. pail B 5 gal. pail A	00-021200-22645-8 00-021200-22646-5 00-021200-82634-4 00-021200-82635-1	62-3520-0535-9 62-3520-6435-6 62-3520-8531-0 62-3620-8531-8
	2158 B/A (Gray)	Multi-purpose. Rigid bonds.	1:1	375,000	2 hours	10 hours	3	1,500	2,000	400	1 pt. kit 1 qt. kit 1 gal. kit 5 gal. pail B 5 gal. pail A	00-021200-20258-2 00-021200-20260-5 00-021200-20262-9 00-021200-20264-3 00-021200-20269-8	62-2158-5430-8 62-2158-6430-7 62-2158-7430-6 62-2158-8530-2 62-2159-8530-0
	3501 B/A (Gray)	Multi-purpose. Rigid bonds.	1:1	500,000	7 minutes	25 minutes	4	1,500	2,400	300	2 oz. tube kit 400mL 1 pt. kit 1 gal. kit 55 gal. drum	00-021200-20842-3 00-021200-45184-3 00-021200-20843-0 00-021200-20846-1 00-051111-91639-1	62-3501-0530-0 62-3501-3530-7 62-3501-5430-8 62-3501-7430-6 62-3501-9530-1

DP = Duo-Pak NS = Non-Sag

* Consider these products first when evaluating adhesives for your application.

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™ Structural Adhesives (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 at 75°F (24°C)	Overlap Shear (psi)			Size	UPC	Stock #
							-67°F (-55°C)	75°F (24°C)	180°F (82°C)			
3M™ Scotch-Weld™ Flexible Epoxies												
Lead Product **DP100 Plus 100 Plus** (Clear)	Very flexible. Colorless.	1:1	8,500	4 minutes	20 minutes	55	3,000	3,500	200	50mL 200mL 400mL 5 gal. pail B 5 gal. pail A	00-021200-87195-5 00-021200-87266-2 00-021200-87267-9 00-021200-87197-9 00-021200-87198-6	62-3272-1435-9 62-3272-3830-9 62-3272-3530-5 62-3272-8530-0 62-3372-8530-8
DP105 105 (Clear)	Very flexible. Colorless.	1:1	6,500	5 minutes	20 minutes	50	3,500	2,000	150	50mL 200mL 400mL 5 gal. pail B 5 gal. pail A	00-021200-87203-7 00-021200-87270-9 00-021200-87271-6 00-021200-87205-1 00-021200-87206-8	62-3287-1435-7 62-3287-3830-7 62-3287-3530-3 62-3287-8530-8 62-3387-8530-6
DP110 110 (Gray)	General purpose. Flexible bonds.	1:1	55,000	8 minutes	20 minutes	40	2,700	3,500	250	50mL 200mL 400mL 5 gal. pail B 5 gal. pail A	00-021200-82470-8 00-021200-87274-7 00-021200-87275-4 00-021200-82471-5 00-021200-82472-2	62-3533-1434-7 62-3533-3830-4 62-3533-3530-0 62-3533-8531-3 62-3633-8531-1
DP110 110 (Translucent)	General purpose. Flexible bonds.	1:1	50,000	8 minutes	20 minutes	40	2,500	2,500	200	50mL 200mL 400mL 5 gal. pail B 5 gal. pail A	00-021200-82465-4 00-021200-87846-6 00-021200-87847-3 00-021200-82466-1 00-021200-82467-8	62-3563-1434-4 62-3563-3830-1 62-3563-3530-7 62-3563-8531-0 62-3663-8531-8
Lead Product **DP125 125** (Gray)	High performance. Very flexible bonds.	1:1	52,500	25 minutes	2.5 hours	90	3,400	4,300	400	50mL 200mL 400mL 5 gal. pail B 5 gal. pail A	00-002100-87211-2 00-002100-87842-8 00-002100-87843-5 00-002100-87217-4 00-002100-87218-1	63-3291-1435-9 62-3291-3830-9 62-3291-3530-5 62-3293-8530-6 62-3393-8530-4
DP125 125 (Translucent)	High performance. Very flexible bonds.	1:1	15,000	25 minutes	2.5 hours	85	4,000	2,500	150	50mL 200mL 400mL	00-021200-87211-2 00-021200-87842-8 00-021200-87843-5	62-3291-1435-9 62-3291-3830-9 62-3291-3530-5
DP190 (Translucent)	High performance. Flexible bonds.	1:1	10,000	80 minutes	6 hours	60	3,500	1,200	150	50mL 200mL 400mL	00-021200-87219-8 00-021200-87838-1 00-021200-87839-8	62-3286-1435-9 62-3286-3830-9 62-3286-3530-5
Lead Product **2216 B/A** (Gray)	High performance. Very flexible bonds.	2:3	80,000	90 minutes	10 hours	50	3,000	3,200	400	2 oz. tube kit 1 pt. kit 1 qt. kit 1 gal. kit 5 gal. pail B 5 gal. pail A 55 gal. drum B 55 gal. drum A	00-021200-20351-0 00-021200-20354-1 00-021200-20356-5 00-021200-20358-9 00-021200-20360-2 00-021200-20365-7 00-021200-20361-9 00-021200-20366-4	62-2216-0530-6 62-2216-5430-4 62-2216-6430-3 62-2216-7430-2 62-2216-8530-8 62-2217-8530-6 62-2216-9530-7 62-2217-9530-5
2216 B/A (Translucent)	General purpose. Very flexible bonds.	1:1	10,000	2 hours	14 hours	70	3,000	1,700	140	2 oz. tube kit 1 pt. kit 1 qt. kit 1 gal. kit 5 gal. pail B 5 gal. pail A 55 gal. drum B 55 gal. drum A	00-021200-20851-5 00-021200-20852-2 00-021200-20854-6 00-021200-20856-0 00-021200-64980-6 00-021200-64981-3 00-021200-20859-1 00-021200-20927-7	62-3508-0530-5 62-3508-5430-3 62-3508-6430-2 62-3508-7430-1 62-3508-8535-6 62-3608-8535-4 62-3508-9530-6 62-3608-9530-4
2216NS B/A (Tan)	High performance. Non-sag.	2:3	350,000	2 hours	10 hours	50	2,000	2,500	400	5 gal. pail B 5 gal. pail A	00-021200-87179-5 00-021200-87180-1	62-3278-8530-7 62-3378-8530-5
LSB90 (Off-White)	General purpose. Very flexible bonds.	1:1	25,000	90 minutes	10 hours	40	3,500	2,500	400	400mL 5 gal. pail B 5 gal. pail A 55 gal. drum B 55 gal. drum A	00-051115-63419-2 00-051115-63420-8 00-051115-63421-5 00-051115-63423-9 00-051115-63425-3	62-3556-3532-7 62-3556-8532-2 62-3656-8532-0 62-3556-9532-1 62-3656-9532-9

DP = Duo-Pak

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3M™ Scotch-Weld™ Structural Adhesives (cont.)



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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 at 75°F (24°C)	Overlap Shear (psi)			Size	UPC	Stock #
							-67°F (-55°C)	75°F (24°C)	180°F (82°C)			
3M™ Scotch-Weld™ Toughened Epoxies												
DP405 **405** (Black)	Tough durable bonds. High impact resistance.	2:1	40,000	4 minutes	15 minutes	40	4,500	4,500	600	37mL 200mL 400mL 5 gal. pail B 5 gal. pail A	00-051111-07698-9 00-051111-07700-9 00-051111-07699-6 00-051111-07707-8 00-051111-07708-5	62-2814-1435-9 62-2814-3830-9 62-2814-3530-5 62-2814-8530-0 62-2914-8530-8
DP420 **420** (Black)	Tough durable bonds. High impact resistance.	2:1	30,000	20 minutes	2 hours	75	4,500	4,500	1,250	37mL 200mL 400mL 5 gal. pail B 5 gal. pail A 55 gal. drum B 55 gal. drum A	00-021200-41528-9 00-021200-41530-2 00-021200-41529-6 00-021200-41531-9 00-021200-41532-6 00-021200-41533-3 00-021200-41534-0	62-2778-1435-6 62-2778-3830-6 62-2778-3530-2 62-2778-8530-7 62-2878-8530-5 62-2778-9530-6 62-2878-9530-4
DP420 **420** (Off-White)	Tough durable bonds. High impact resistance.	2:1	30,000	20 minutes	2 hours	70	4,500	4,500	450	37mL 200mL 400mL 5 gal. pail B 5 gal. pail A 1 gal. kit B/A	00-021200-82236-0 00-021200-87832-9 00-021200-87833-6 00-021200-82238-4 00-021200-82239-1 00-021200-97347-5	62-3280-1435-2 62-3280-3830-2 62-3280-3530-8 62-3280-8530-3 62-3380-8530-1 62-3280-7530-4
DP420LH **420LH** (Off-White)	Tough durable bonds. Low halogen.	2:1	30,000	20 minutes	2 hours	70	4,500	4,500	1,250	37mL 200mL 400mL 5 gal. pail B 5 gal. pail A	00-051111-07244-8 00-051111-07697-2 00-051111-07696-5 00-051111-07275-2 00-051111-07276-9	62-2818-1435-0 62-2818-3830-0 62-2818-3530-6 62-2818-8530-1 62-2918-8530-9
Lead Product **DP420NS** **420NS** (Black)	Tough durable bonds. Non-sag.	2:1	180,000	20 minutes	2 hours	60	4,500	4,500	1,250	37mL 200mL 400mL 5 gal. pail B 5 gal. pail A 55 gal. drum B 55 gal. drum A	00-021200-39285-6 00-021200-39286-3 00-021200-39287-0 00-021200-56587-8 00-021200-31309-7 00-048011-58132-3 00-048011-58133-0	62-3299-1435-2 62-3299-3832-8 62-3299-3532-4 62-3299-8535-2 62-3399-8530-1 62-3299-9530-2 62-3399-9530-0
DP460 **460** (Off-White)	Tough durable bonds.	2:1	30,000	60 minutes	4 hours	80	4,500	4,500	700	37mL 200mL 400mL 1 qt. kit 5 gal. pail B 5 gal. pail A	00-021200-82225-4 00-021200-87830-5 00-021200-87831-2 00-021200-82226-1 00-021200-82227-8 00-021200-82228-5	62-3593-1435-8 62-3593-3830-8 62-3593-3530-4 62-3593-6430-4 62-3593-8530-9 62-3693-8530-7
DP460NS **460NS** (Off-White)	Tough durable bonds. Non-sag.	2:1	125,000	60 minutes	4 hours	70	4,900	4,650	1,350	37mL 200mL 400mL 5 gal. pail B 5 gal. pail A	00-021200-43670-3 00-021200-43671-0 00-021200-43672-7 00-021200-43673-4 00-021200-43674-1	62-2792-1435-7 62-2792-3830-7 62-2792-3530-3 62-2792-8530-8 62-2892-8530-6
LSB60 (Gray)	Tough durable bonds. High impact resistance.	1:1	30,000	90 minutes	10 hours	15	3,400	4,500	900	400mL 5 gal. pail B 5 gal. pail A 55 gal. drum B 55 gal. drum A	00-051115-63411-6 00-051115-63414-7 00-051115-63416-1 00-051115-63417-8 00-051115-63418-5	62-3554-3532-2 62-3554-8532-7 62-3654-8532-5 62-3554-9532-6 62-3654-9532-4
LSB60NS (Gray)	Tough durable bonds. Non-sag. High impact resistance.	1:1	180,000	90 minutes	10 hours	30	3,800	4,500	800	400mL 5 gal. pail B 5 gal. pail A 55 gal. drum B 55 gal. drum A	00-051115-63426-0 00-051115-63427-7 00-051115-63428-4 00-051115-63429-1 00-051115-63430-7	62-3562-3532-5 62-3562-8532-0 62-3662-8532-8 62-3562-9532-9 62-3662-9532-7
LSB360NS (Green)	Tough durable bonds. Non-sag. Extra long work life. Bonds oily metals.	1:1	Paste	10 hours	16 hours	30	4,000	3,900	800	400mL	00-051111-64291-3	62-3560-3530-3

DP = Duo-Pak NS = Non-Sag LH = Low Halogen

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™ Structural Adhesives (cont.)



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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 at 75°F (24°C)	Overlap Shear (psi) -67°F (-55°C)	Overlap Shear (psi) 75°F (24°C)	Overlap Shear (psi) 180°F (82°C)	Size	UPC	Stock #
3M™ Scotch-Weld™ Low Odor Acrylics												
DP810 (Black)	Tough durable bonds. High impact resistance.	1:1	20,000	10 minutes	20 minutes	30	1,200	3,600	500	50mL 200mL 1 gal. pail 5 gal. pail 20 liter pail B 20 liter pail A	00-021200-49077-4 00-021200-49079-8 00-048011-56711-2 00-048011-56712-9 00-021200-49080-4 00-021200-49081-1	62-2788-1435-5 62-2788-3830-5 62-2788-7530-7 62-2888-7530-5 62-2788-8730-2 62-2888-8730-0
DP810 810 (Tan)	Tough durable bonds. High impact resistance.	1:1	20,000	10 minutes	20 minutes	30	1,200	3,600	500	50mL 200mL 400mL 20 liter pail B 20 liter pail A	00-021200-31310-3 00-021200-31311-0 00-021200-31312-7 00-021200-45230-7 00-021200-45233-8	62-3298-1435-4 62-3298-3830-4 62-3298-3530-0 62-3298-8730-1 62-3398-8730-9
DP810NS 810NS (Tan)	Tough durable bonds. Non-sag.	1:1	95,000	10 minutes	20 minutes	20	1,200	4,000	500	50mL 200mL 400mL 20 liter pail B 20 liter pail A	00-021200-49082-8 00-021200-49084-2 00-021200-49083-5 00-021200-49085-9 00-021200-49086-6	62-2799-1435-2 62-2799-3830-2 62-2799-3530-8 62-2799-8730-9 62-2899-8730-7
Lead Product **DP8805NS 8805NS** (Green)	Low odor. Fast rate of strength build.	10:1	80,000	5 minutes	10 minutes	30	n/a	3,600	900	45mL 400mL 5 gal. pail B 5 gal. pail A 55 gal. drum B 55 gal. drum A	00-051115-68958-1 00-051115-68959-8 00-051115-68979-6 00-051115-68984-0 00-051115-68981-9 00-051115-68980-2	62-2852-1445-8 62-2852-3630-3 62-2852-8530-0 62-2852-9530-9 62-2952-7530-9 62-2952-8530-8
DP8810NS 8810NS (Green)	Low odor. Fast rate of strength build.	10:1	80,000	10 minutes	20 minutes	30	n/a	3,600	800	45mL 400mL 5 gal. pail B 5 gal. pail A 55 gal. drum B 55 gal. drum A	00-051115-68960-4 00-051115-68962-8 00-051115-68982-6 00-051115-68985-7 00-051115-68981-9 00-051115-68980-2	62-2854-1445-4 62-2854-3630-9 62-2854-8530-6 62-2854-9530-5 62-2952-7530-9 62-2952-8530-8
DP8825NS 8825NS (Green)	Low odor. Fast rate of strength build.	10:1	80,000	25 minutes	50 minutes	20	n/a	3,000	800	45mL 490mL 5 gal. pail 55 gal. drum 1 gal. can 5 gal. pail	00-051115-81288-0 00-051115-81289-7 00-051115-81290-3 00-051115-81291-0 00-051115-81415-0 00-051115-81414-3	62-2866-1445-8 62-2866-3630-3 62-2866-8530-0 62-2866-9530-9 62-2962-7530-8 62-2962-8530-2

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 at 75°F (24°C)	Overlap Shear (psi) -20°F (-29°C)	Overlap Shear (psi) 75°F (24°C)	Overlap Shear (psi) 150°F (66°C)	Size	UPC	Stock #
3M™ Scotch-Weld™ Low Surface Energy (LSE) Plastic Acrylics												
DP8005 8005 (Black)	Bonds polyolefins and low surface energy materials.	10:1	25,000	3 minutes	3 hours	9	875	2,000	475	35mL 250mL 1 gal. pail A 5 gal. pail B 5 gal. pail A 50 gal. drum B	00-051111-92166-1 00-051111-92167-8 00-021200-45171-3 00-051111-92168-5 00-021200-45172-0 00-051111-92171-5	62-2779-0437-1 62-2779-3936-9 62-2879-7530-4 62-2779-8536-2 62-2879-8530-3 62-2779-9536-1
DP8005 8005 (Off-White)	Bonds polyolefins and low surface energy materials.	10:1	25,000	3 minutes	3 hours	17	750	2,200	500	35mL 250mL 1 gal. pail A 5 gal. pail B	00-051111-92130-2 00-051111-92131-9 00-021200-41552-4 00-051111-92143-2	62-2786-0437-6 62-2786-3936-4 62-2886-7530-9 62-2786-8536-7
Lead Product **DP8010 8010** (Blue)	Bonds polyolefins and low surface energy materials.	10:1	20,000	10 minutes	1 hour	n/a	2,700	2,700	500	45mL 490mL 1 gal. cont. A 5 gal. pail B 5 gal. pail A 55 gal. drum B	00-051115-71600-3 00-051115-71601-0 00-021200-49113-9 00-051115-71669-0 00-021200-49115-3 00-051115-81460-0	62-2863-1445-5 62-2863-3630-0 62-2883-7530-6 62-2863-8530-7 62-2883-8530-5 62-2863-9530-6
DP8010NS 8010NS (Blue)	Bonds polyolefins and low surface energy materials.	10:1	65,000	10 minutes	1 hour	n/a	2,700	2,700	500	45mL 490mL 1 gal. cont. A 5 gal. pail B 5 gal. pail A 55 gal. drum B	00-051115-81451-8 00-051115-81453-2 00-021200-49113-9 00-051115-81454-9 00-021200-49115-3 00-051115-81461-7	62-2865-1445-0 62-2865-3630-5 62-2883-7530-6 62-2865-8530-2 62-2883-8530-5 62-2865-9530-1

DP = Duo-Pak NS = Non-Sag

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3M™ Scotch-Weld™ Structural Adhesives (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 at 75°F (24°C)	Overlap Shear (psi) -67°F (-55°C)	Overlap Shear (psi) 75°F (24°C)	Overlap Shear (psi) 180°F (82°C)	Size	UPC	Stock #
3M™ Scotch-Weld™ Standard MMA Acrylics												
DP805 **805** (Light Yellow)	Fast strength build. Minimal surface prep.	1:1	110,000	3 minutes	10 minutes	35	2,500	3,500	2,200	50mL 200mL 400mL 5 gal. pail B 5 gal. pail A	00-021200-83758-6 00-021200-87828-2 00-021200-87829-9 00-021200-87233-4 00-021200-87234-1	62-3288-1435-5 62-3288-3830-5 62-3288-3530-1 62-3288-8530-6 62-3388-8530-4
DP807 **807** (Light Yellow)	Short work life. Two-part toughened acrylic adhesive.	1:1	50,000	5 minutes	20 minutes	20	2,000	4,300	800	47mL 200mL 400mL 5 gal. pail B 5 gal. pail A	00-051115-31635-7 00-051115-31636-4 00-051115-31637-1 00-051115-31638-8 00-051115-31639-5	62-3290-1435-1 62-3290-3830-1 62-3290-3530-7 62-3290-8530-2 62-3390-8530-0
DP812 **812** (Yellow)	Medium work life. Two-part toughened acrylic adhesive.	1:1	50,000	10 minutes	20 minutes	20	2,100	4,500	1,000	50mL 200mL 400mL 5 gal. pail B 5 gal. pail A	00-051115-31641-8 00-051115-31646-3 00-051115-31643-2 00-051115-31644-9 00-051115-31645-6	62-3292-1435-7 62-3292-3830-7 62-3292-3530-3 62-3292-8530-8 62-3392-8530-6
DP820 (Light Yellow)	Tough durable bonds. Minimal surface prep.	1:1	55,000	15 minutes	40 minutes	20	3,100	3,150	1,900	50mL 200mL 400mL	00-021200-89347-6 00-021200-89348-3 00-021200-89349-0	62-3277-1435-8 62-3277-3830-8 62-3277-3530-4
DP825 **825** (White)	Long work life. Two-part toughened acrylic adhesive.	1:1	50,000	25 minutes	40 minutes	20	2,700	4,500	1,000	47mL 200mL 400mL 5 gal. pail B 5 gal. pail A	00-051115-31667-8 00-051115-31668-5 00-051115-31669-2 00-051115-31670-8 00-051115-31671-5	62-3285-1435-1 62-3285-3830-1 62-3285-3530-7 62-3285-8530-2 62-3385-8530-0
DP8405NS **8405NS** (Green)	High impact. Adhesion to most plastics.	10:1	70,000	5 minutes	15 minutes	50	n/a	4,100	900	45mL 490mL 5 gal. pail 55 gal. drum	00-051115-68963-5 00-051115-68964-2 00-051115-68986-4 00-051115-68987-1	62-2856-1445-9 62-2856-3630-4 62-2856-8530-1 62-2856-9530-0
Lead Product **DP8410NS** **8410NS** (Green)	High impact. Adhesion to most plastics.	10:1	70,000	10 minutes	25 minutes	50	n/a	4,100	800	45mL 490mL 5 gal. pail 55 gal. drum	00-051115-70994-4 00-051115-70995-1 00-051115-70997-5 00-051115-71101-5	62-2860-1445-1 62-2860-3630-6 62-2860-8530-3 62-2860-9530-2
DP8425NS **8425NS** (Green)	High impact. Adhesion to most plastics.	10:1	70,000	25 minutes	50 minutes	50	n/a	3,700	800	45mL 490mL 5 gal. pail 55 gal. drum B	00-051115-81303-0 00-051115-81302-3 00-051115-81298-9 00-051115-81031-6	62-2862-1445-7 62-2862-3630-2 62-2862-8530-9 62-2862-9530-8
3M™ Scotch-Weld™ Flexible Urethanes												
Lead Product **DP604NS** **604NS** (Black)	Flexible. Non-sag.	1:1	Paste	4 minutes	20 minutes	30	1,400	600	300	50mL 5 gal. pail B 5 gal. pail A 50 gal. drum B 50 gal. drum A	00-021200-96412-1 00-021200-96461-9 00-021200-96462-6 00-021200-96531-9 00-021200-96532-6	62-2648-5030-6 62-2648-8530-2 62-2748-8530-0 62-2648-9530-1 62-2748-9530-9
DP640 (Brown)	Tough flexible bonds.	1:1	25,000	60 minutes	8 hours	60	3,000	2,000	400	50mL 200mL 400mL	00-021200-89543-2 00-021200-89545-6 00-021200-89544-9	62-3549-1435-0 62-3549-3830-0 62-3549-3530-6
3549 (Brown)	Tough flexible bonds. Non-sag.	1:1	30,000	60 minutes	8 hours	60	3,000	2,000	400	2 oz. kit 1 qt. kit 5 gal. pail B 5 gal. pail A	00-021200-20901-7 00-021200-20902-4 00-021200-20904-8 00-021200-20942-0	62-3549-0501-0 62-3549-6401-7 62-3549-8501-2 62-3649-8501-0
DP5001 **5001** (Black)	Flexible. Conveyor belt repair.	1:1	100,000	1 minute	15 minutes	n/a	n/a	600	n/a	50mL 400mL	00-021200-96414-5 00-051111-98296-9	62-3528-5032-5 62-3528-3530-0
DP5106 **5106** (Gray)	High strength. Control joint seals.	1:1	34,000	4 minutes	40 minutes	n/a	n/a	1,100	n/a	5 gal. pail B 5 gal. pail A	00-021200-96583-8 00-021200-96584-5	62-3627-8535-6 62-3527-9535-4

DP = Duo-Pak NS = Non-Sag

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3M™ Scotch-Weld™ Structural Adhesives (cont.)

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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 at 75°F (24°C)	Overlap Shear (psi)			Size	UPC	Stock #
							-67°F (-55°C)	75°F (24°C)	180°F (82°C)			
3M™ Scotch-Weld™ Semi-Rigid Urethanes												
* **DP600 600** (Gray)	Concrete repair. Self-leveling.	1:1	6,000	1 minute	4 minutes	20	3,200	2,300	700	50mL 400mL 8.4 fl. oz. 5 gal. pail B 5 gal. pail A	00-021200-56602-8 00-051111-98303-4 00-021200-96596-8 00-021200-96574-6 00-021200-96575-3	62-2649-5030-4 62-2649-3530-5 62-2649-1233-8 62-2649-8535-9 62-2749-8535-7
DP600NS 600NS (Gray)	Concrete repair. Non-sag.	1:1	Paste	1 minute	4 minutes	8	2,700	2,300	700	50mL 400mL	00-021200-56606-6 00-051111-98312-6	62-2652-5030-8 62-2652-3530-9
DP601 601 (Gray)	Rigid. Self-leveling.	1:1	6,000	1 minute	4 minutes	20	3,200	2,300	700	50mL 5 gal. pail B 5 gal. pail A 50 gal. drum B 50 gal. drum A	00-021200-96410-7 00-021200-96451-0 00-021200-96452-7 00-021200-96507-4 00-021200-96508-1	62-2649-5031-2 62-2649-8530-0 62-2749-8530-8 62-2649-9530-9 62-2749-9530-7
DP601NS 601NS (Gray)	Rigid. Non-sag.	1:1	Paste	1 minute	4 minutes	8	2,700	2,300	700	50mL	00-021200-96407-7	62-2652-5031-6
DP605NS 605NS (Off-White)	Semi-rigid. Non-sag.	1:1	150,000	5 minutes	20 minutes	40	4,000	2,000	600	50mL 200mL 5 gal. pail B 5 gal. pail A	00-021200-82252-0 00-021200-87853-4 00-021200-82253-7 00-021200-82254-4	62-3592-1435-0 62-3592-3830-0 62-3592-8530-1 62-3692-8530-9
DP608 608 (Black)	Flexible. Non-sag.	1:1	Paste	10 minutes	90 minutes	16	3,000	2,500	500	50mL 5 gal. pail B 5 gal. pail A 50 gal. drum B 50 gal. drum A	00-021200-96418-3 00-021200-96513-5 00-021200-96514-2 00-021200-96515-9 00-021200-96516-6	62-3268-5030-2 62-3268-8530-8 62-3368-8530-6 62-3268-9530-7 62-3368-9530-5
DP620NS 620NS (Black)	Flexible. Non-sag.	1:1	Paste	20 minutes	4 hours	40	3,000	2,500	500	50mL 5 gal. Pail B 5 gal. Pail A 50 gal. drum B 50 gal. drum A	00-021200-96416-9 00-021200-96449-7 00-021200-96450-3 00-021200-96505-0 00-021200-96506-7	62-2645-5030-2 62-2645-8530-8 62-2745-8530-6 62-2645-9530-7 62-2745-9530-5
3532 B/A (Brown)	Multi-purpose. Semi-rigid bonds.	1:1	30,000	10 minutes	90 minutes	25	2,500	2,000	300	2 oz. kit 1 qt. kit 5 gal. pail B 5 gal. pail A	00-021200-20878-2 00-021200-20879-9 00-021200-20881-2 00-021200-20935-2	62-3532-0515-6 62-3532-6430-2 62-3532-8515-8 62-3632-8516-4
3535 B/A (Off-White)	Multi-purpose. Semi-rigid bonds.	1:1	30,000	3 minutes	30 minutes	25	2,500	2,000	300	2 oz. kit 1 qt. kit	00-021200-20887-4 00-021200-20888-1	62-3535-0515-9 62-3535-6430-5

DP = Duo-Pak NS = Non-Sag

* Consider these products first when evaluating adhesives for your application.

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3M™ Scotch-Weld™ Low Surface Energy (LSE) Plastic Acrylics

3M's Low Surface Energy Structural Acrylic Adhesives bond to low surface energy plastics such as Polypropylene (PP), Polyethylene (HDPE) and most Thermoplastic Polyolefins (TPOs), providing structural adhesive bond strength that causes the plastic material to fail before the adhesive bond. **DP8010 Blue**


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3M™ Scotch-Weld™ Concrete Repair Adhesives

3M's Concrete Repair Urethane Adhesives repair cracks and patch holes in minutes, providing minimal disruption to your operations. Products are available for both horizontal and vertical surfaces. **DP600**



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3M™ Scotch-Weld™ Structural Adhesives (cont.)

	Product (Color)	Key Features	Approximate Viscosity at 75°F (24°C) (cP)	Cure Conditions		Floating Roller Peel at 75°F (24°C)	Overlap Shear (psi)				Size	UPC	Stock #
				Time (min.)	Temperature °F (°C)		-67°F (-55°C)	75°F (24°C)	180°F (82°C)	250°F (121°C)			
	3M™ Scotch-Weld™ One-Part Heat Cured Epoxies												
	1386 (Cream)	High temperature strength. Impact resistance.	150,000	60	350 (177)	10	3,000	5,500	4,500	2,500	1 qt. 5 gal. pail	00-021200-19917-2 00-021200-19919-6	62-1386-6525-2 62-1386-8525-0
	1469 (Cream)	High temperature strength. Low viscosity.	60,000	120	350 (177)	2	3,150	3,700	3,700	3,600	1 qt. 5 gal. pail	00-021200-19949-3 00-021200-19950-9	62-1469-6525-6 62-1469-8525-4
	2086 (Gray)	High temperature strength. High viscosity.	Paste	60	350 (177)	5	3,000	5,000	5,000	2,200	5 gal. pail	00-021200-20235-3	62-2086-8525-5
	2214 Hi-Density (Gray)	High temperature strength. Low temperature curing.	Paste	40	250 (121)	5	3,000	4,500	4,500	1,700	6 oz. cart. 5 gal. pail	00-021200-20813-3 00-021200-20814-0	62-3414-2930-6 62-3414-8530-8
	2214 Hi-Temp New Formula (Gray)	High temperature strength. Environmental resistance.	Paste	60	250 (121)	2	2,800	2,800	2,800	2,500	6 oz. cart. 5 gal. pail	00-021200-20833-1 00-021200-20835-5	62-3491-2830-6 62-3491-8530-6
	2214 Hi-Temp Original (Gray)	High temperature strength. Environmental resistance.	Paste	40	250 (121)	2	2,000	2,000	3,000	2,500	6 oz. cart.	00-021200-20806-5	62-3402-2930-1
	2214 Non-Metallic Filled (Cream)	High temperature strength. Higher insulation value.	Paste	40	250 (121)	7	3,000	4,000	4,500	1,500	6 oz. cart. 5 gal. pail	00-021200-20802-7 00-021200-25496-3	62-3401-0830-7 62-3401-2934-5
*	**2214 Regular** (Gray)	High temperature strength. Low temperature curing.	Paste	40	250 (121)	5	3,000	4,500	4,500	1,500	6 oz. cart. 1 quart 5 gal. pail	00-021200-20344-2 00-021200-20345-9 00-021200-23047-3	62-2214-2930-1 62-2214-6530-5 62-2214-8530-3
	2290 (Amber)	Low solids liquid coating for metal laminations.	60	30	350 (177)	n/a	5,000	5,000	3,500	1,200	1 gal. cart. 5 gal. pail 54 gal. drum	00-021200-76225-3 00-021200-76227-7 00-021200-76228-4	62-3847-7530-0 62-3847-8531-7 62-3847-9530-8

* Consider these products first when evaluating adhesives for your application.

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™ 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.
PR40, PR100, PR600, PR1500, PRGel



3M™ Scotch-Weld™ Super Fast Instant Adhesives

The SF (Super Fast) series products are very fast setting and bond to most surfaces, including leathers and other acidic materials, making them the first choice for fast cure and material versatility.
SF20 & SF100



3M™ Scotch-Weld™ Instant Adhesives



Product (Color)	Key Features	Typical Viscosity (cP)	Temperature Range °F (°C)	Time to Handling (seconds)	Full Cure (hours)	Size	UPC	Stock #
Plastic and Rubber								
PR Gel (Clear)	Fast cure. Gel viscosity for maximum gap filling.	Gel	-65 to 180 (-54 to 82)	20–60	24	20 gram tube 300 gram cart.	00-051115-25265-5 00-051115-25282-2	62-6152-0362-7 62-6152-3360-8
PR40 (Clear)	Low viscosity for close fitting plastic/rubber parts.	40	-65 to 180 (-54 to 82)	3–20	24	20 gram bottle 500 gram bottle	00-051115-25204-4 00-051115-25205-1	62-6147-0360-1 62-6147-3860-7
Lead Product **PR100** (Clear)	General purpose. Low viscosity plastic bonder.	100	-65 to 180 (-54 to 82)	10–30	24	20 gram bottle 500 gram bottle 500 gram bottle 2 kilo bottle	00-051115-25214-3 00-051115-25939-5 00-051115-25213-6 00-051111-07176-2	62-6164-0360-6 62-6164-3865-1 62-6164-3860-2 62-6164-6860-9
PR600 (Clear)	Medium viscosity with some gap filling for plastic/rubbers.	600	-65 to 180 (-54 to 82)	4–40	24	50mL bottle	00-051115-25241-9	62-6182-0862-3
PR1500 (Clear)	General purpose. High viscosity for gap filling.	1,500	-65 to 180 (-54 to 82)	20–60	24	200 gram bottle 500 gram bottle 500 gram bottle 2 gram tube	00-051115-25222-8 00-051115-25937-1 00-051115-25221-1 00-051115-25205-0	62-6165-0360-3 62-6165-3865-8 62-6165-3860-9 62-6137-0260-4
Surface Intensive								
SI Gel (Clear)	Fast cure. Gel viscosity for maximum gap filling.	Gel	-65 to 180 (-54 to 82)	20–60	24	20 gram tube 300 gram cart.	00-051115-25266-2 00-051115-25284-6	62-6163-0362-4 62-6163-3360-5
SI100 (Clear)	Low viscosity for medium gaps.	100	-65 to 180 (-54 to 82)	3–20	24	200 gram bottle 3 gram tube 500 gram bottle	00-051115-25268-6 00-051115-25290-7 00-051115-25267-9	62-6176-0360-0 62-6176-0363-4 62-6176-3860-6
SI1500 (Clear)	High viscosity for gap filling.	1,500	-65 to 180 (-54 to 82)	5–60	24	50 gram bottle 500 gram bottle	00-048011-61662-9 00-051115-25245-7	62-6178-0862-1 62-6178-3860-2
Low Odor								
LO 100 (Clear)	General purpose. Low viscosity with reduced odor and blooming.	100	-65 to 180 (-54 to 82)	9–20	24	20 gram tube	00-048011-62732-8	62-6128-0360-1
LO 1000 (Clear)	General purpose. High viscosity with reduced odor and blooming, suitable for minor gap filling.	1,000	-65 to 180 (-54 to 82)	20–25	24	20 gram tube	00-051111-91664-3	62-6132-0360-3
General Purpose								
EC Gel (Clear)	Industrial strength thixotropic gel for maximum gap fill.	Gel	-65 to 180 (-54 to 82)	20–60	24	300 gram cart.	00-048011-62659-8	62-6196-3360-5
EC5 (Clear)	Very low viscosity for close fitting plastic/rubber parts. Wicking grade.	5	-65 to 180 (-54 to 82)	10–30	24	20 gram bottle 500 gram bottle	00-051115-81285-9 00-051115-81286-6	62-6192-0360-7 62-6192-3860-3
EC40 (Clear)	General purpose. Fast curing.	40	-65 to 180 (-54 to 82)	5–30	24	20 gram bottle 500 gram bottle	00-048011-62645-1 00-048011-62646-8	62-6190-0360-1 62-6190-3860-7
EC100 (Clear)	General purpose. Fast curing.	100	-65 to 180 (-54 to 82)	10–40	24	20 gram bottle 500 gram bottle	00-048011-62638-3 00-048011-62640-6	62-6188-0360-5 62-6188-3860-1
EC2500 (Clear)	Higher viscosity for porous materials and minor gap filling. Slower cure for repositionability.	2,500	-65 to 180 (-54 to 82)	20–60	24	20 gram bottle 500 gram bottle	00-048011-62642-0 00-048011-62636-9	62-6186-0360-9 62-6186-3860-5

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3M™ Scotch-Weld™ Instant Adhesives (cont.)

Product (Color)	Key Features	Typical Viscosity (cP)	Temperature Range °F (°C)	Time to Handling (seconds)	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 (-54 to 82)	4 – 30	24	1 oz. bottle 1 lb. bottle	00-051111-91667-4 00-051115-25790-2	62-6151-0360-3 62-6151-3860-9
SF100 (Clear)	Fast cure. High strength with EPDM and other elastomers.	100	-65 to 180 (-54 to 82)	4 – 30	24	20 gram bottle 3 gram tube 1 lb. bottle	00-048011-62631-4 00-048011-62630-7 00-048011-62629-1	62-6174-0361-3 62-6174-0363-9 62-6174-3860-1
Rubber Toughened								
RT5000B (Black)	Rubber toughened for impact resistance. High viscosity for minor gap filling.	5,000	-65 to 180 (-54 to 82)	30	24	20 gram bottle 500 gram bottle	00-051111-916650 00-051115-252006	62-6135-0360-6 62-6135-3860-2
Metal								
MC100 (Clear)	Multi-purpose metal bonder.	100	-65 to 180 (-54 to 82)	4 – 20	24	1 oz. bottle 1 lb. bottle	00-051111-91663-6 00-048011-62634-5	62-6130-0360-7 62-6130-3860-3
Engineered Grade								
CA4	Fast setting for a variety of plastics and rubbers.	150	-65 to 180 (-54 to 82)	5 – 40	24	2 gram tube 1 oz. bottle 1 lb. bottle	00-021200-96601-9 00-021200-96600-2 00-021200-96597-5	62-3801-0230-1 62-3801-0330-9 62-3801-3830-5
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 (-54 to 82)	12 – 60	24	1 oz. bottle 1 lb. bottle	00-021200-74289-7 00-021200-74288-0	62-3802-0330-7 62-3802-3830-3
CA7	Very fast setting. Excellent metal bonder. Better shock and impact resistance.	15 – 40	-65 to 212 (-54 to 100)	1 – 30	24	1 oz. bottle 1 lb. bottle	00-021200-21061-7 00-021200-21062-4	62-3812-0330-6 62-3812-3830-2
CA8	Rapid setting. Excellent adhesion to metals, plastics and rubbers. Meets CID A-A-3097, Type II, Class 2.	70 – 130	-65 to 180 (-54 to 82)	5 – 40	24	2 gram tube 1 oz. bottle 1 lb. bottle	00-021200-21065-5 00-021200-21066-2 00-021200-21067-9	62-3815-0130-3 62-3815-0330-9 62-3815-3830-5
CA9	Slower setting for parts alignment Useful for wire tracking and coil terminating Meets CID A-A3097, Type II, Class 3.	1,000 – 1,700	-65 to 180 (-54 to 82)	20 – 70	24	1 oz. bottle 1 lb. bottle	00-021200-21068-6 00-021200-21069-3	62-3817-0330-5 62-3817-3830-1
CA40	Very fast setting. Excellent adhesion to many substrates including flexible vinyl and EPDM rubber.	20	-65 to 180 (-54 to 82)	3 – 20	24	1 oz. bottle 1 lb. bottle	00-021200-74290-3 00-021200-74291-0	62-3803-0330-5 62-3803-3830-1
CA40H	Higher viscosity version of CA40. Better void filling capabilities.	400 – 600	-65 to 212 (-54 to 100)	5 – 40	24	1 oz. bottle 1 lb. bottle	00-021200-21073-0 00-021200-21074-7	62-3829-0330-0 62-3829-3830-6
CA50 Gel	High-viscosity, non-sag gel. Less sensitive to acidic surfaces.	45,000 – 85,000	-65 to 212 (-54 to 100)	60 – 120	24	20 gram tube 200 gram tube	00-021200-82332-9 00-021200-83737-1	62-3872-0330-0 62-3872-3630-0
CA100	High peel and impact strength. High thermal shock and heat resistance.	2,500 – 4,500	-65 to 212 (-54 to 100)	20 – 70	24	1 oz. bottle 1 lb. bottle	00-021200-82334-3 00-021200-82335-0	62-3873-0330-8 62-3873-3830-4

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3M™ Scotch-Weld™ Instant Adhesives (cont.)

Product (Color)	Key Features	Typical Viscosity (cP)	Time to Handling (seconds)	Full Cure (hours)	Size	UPC	Stock #
Primers, Activators and Debonders							
AC09	Instant adhesive activator. Non-flammable, solvent-based. California compliant.	1	1–5	24	2 fl. oz bottle 1 liter	00-051111-07795-5 00-051111-07908-9	62-6198-0860-3 62-6198-8360-6
AC77	Instant adhesive primer for bonding of difficult-to-bond plastics such as polyethylene, polypropylene and polyacetal.	< 3	1–5	24	2 fl. oz. bottle 4 liter can 55 gallon	00-048011-62728-1 00-048011-62653-6 00-048011-62654-3	62-3907-0860-0 62-3907-7560-9 62-3907-9560-7
AC79	Instant adhesive primer for bonding of difficult-to-bond elastomers such as silicone, fluoroelastomer and EPDM.	2	1–5	24	2 fl. oz. bottle 8 fl. oz. bottle 4 liter can	00-051115-31388-2 00-051115-31389-9 00-051115-31390-5	62-3916-0860-1 62-3916-3760-0 62-3916-7560-0
AC113	Instant adhesive general purpose accelerator. Will not attack plastics.	< 3	1–5	24	2 fl. oz bottle 8 fl. oz bottle 1 qt. can 4 liter can	00-048011-62681-9 00-048011-62682-6 00-048011-62683-3 00-048011-62684-0	62-6194-0860-2 62-6194-3760-1 62-6194-6560-2 62-6194-7560-1
AC452	Instant adhesive acetone-based accelerator flashes off rapidly. Excellent adhesion. Overspray may attack some plastics.	< 2	1–5	24	2 fl. oz bottle 8 fl. oz bottle 12 oz. aerosol 4 liter can	00-048011-62685-7 00-048011-62686-4 00-048011-62687-1 00-048011-62689-5	62-6195-0860-9 62-6195-3760-8 62-6195-4460-4 62-6195-7560-8
Surface Activator	Clear, colorless organic-based liquid helps speed curing and prime surfaces. Comes with brush and spray pump.	< 10	1–5	24	2 fl. oz. bottle	00-021200-87937-1	62-3804-0830-2

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3M™ Scotch-Weld™ Engineered Grade Instant Adhesives

3M™ Scotch-Weld™ Engineered Grade Instant Adhesives combine high performance, excellent adhesion and temperature resistance with the speed of instant adhesives, providing you with differentiated capabilities for your most difficult thin bond line applications. **CA5, CA40, CA40H, CA50 Gel**



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3M™ Scotch-Weld™ Threadlockers

3M™ Scotch-Weld™ Threadlockers offer a range of products including temporary, permanent and high temperature resistance. These adhesives conform to most industry recognized standards for torque and strength. **TL42, TL62, TL71, TL90**


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3M™ Scotch-Weld™ Anaerobic Adhesives

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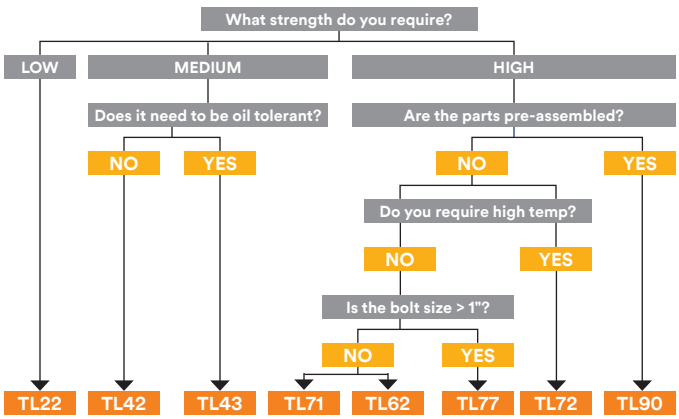
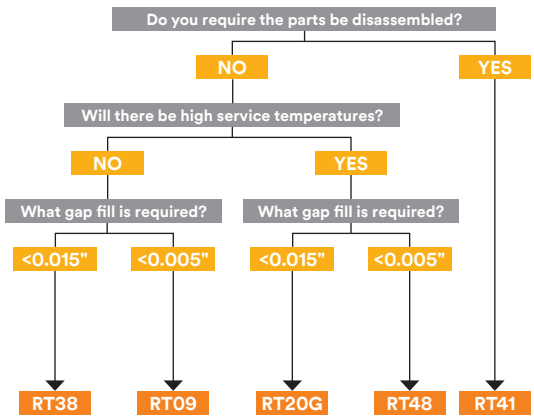
Product (Color)	Key Features	Typical Viscosity (cps)	Temperature Range °F (°C)	Time to Handling (minutes)	Full Cure (hours)	Size	UPC	Stock #
Threadlockers								
TL22 (Purple)	Screwlock. Low removal torque fasteners less than a 1/4" (6mm).	1,200	-65 to 300 (-54 to 149)	< 20	24	10mL bottle 50mL bottle 250mL bottle	00-048011-62601-7 00-048011-62602-4 00-048011-62603-1	62-3493-1060-7 62-3493-5060-3 62-3493-3960-6
TL42 (Blue)	Nutlock. Medium strength. General purpose.	1,200	-65 to 300 (-54 to 149)	< 20	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	62-3494-0160-4 62-3494-1060-5 62-3494-5060-1 62-3494-3960-4 62-3494-8360-2
TL43 (Blue)	Oil tolerant. Medium strength. General purpose.	3,300	-65 to 300 (-54 to 149)	< 20	24	10mL bottle 50mL bottle 250mL bottle 1 liter bottle	00-051115-25138-2 00-051115-25139-9 00-051115-25140-5 00-051115-25141-2	62-3428-1060-3 62-3428-5060-9 62-3428-3960-2 62-3428-8360-0
TL62 (Red)	Studlock. High strength with controlled torque tension.	1,600	-65 to 300 (-54 to 149)	< 20	24	10mL bottle 50mL bottle 250mL bottle 1 liter bottle	00-048011-62609-3 00-048011-62610-9 00-048011-62611-6 00-051115-25132-0	62-3495-1060-2 62-3495-5060-8 62-3495-3960-1 62-3495-8360-9
TL71 (Red)	Permanent studlock for bolts and studs up to 1" (25mm).	500	-65 to 300 (-54 to 149)	< 20	24	1mL pipette 10mL bottle 50mL bottle 250mL bottle	00-051115-25125-2 00-048011-62612-3 00-048011-62613-0 00-048011-62614-7	62-3496-0160-9 62-3496-1060-0 62-3496-5060-6 62-3496-3960-9
TL72 (Red)	High temperature studlock with gap filling for larger diameter coarse threaded parts.	7,000	-65 to 450 (-54 to 232)	< 20	24	10mL bottle 50mL bottle 250mL bottle 1 liter bottle	00-051115-25133-7 00-051115-25137-5 00-051115-25135-1 00-051115-25136-8	62-3497-1060-8 62-3497-5060-4 62-3497-3960-7 62-3497-8360-5
TL77 (Red)	Heavy duty permanent for fasteners up to 1.5" (38mm) with coarse threads.	7,000	-65 to 300 (-54 to 149)	< 20	24	10mL bottle 50mL bottle 250mL bottle	00-051115-25142-9 00-051115-25143-6 00-051115-25144-3	62-3429-1060-1 62-3429-5060-7 62-3429-3960-0
TL90 (Green)	Penetrating adhesive for pre-assembled fasteners and porosity sealing of welds.	20	-65 to 300 (-54 to 149)	< 20	24	10mL bottle 50mL bottle 250mL bottle 1 liter bottle	00-048011-62615-4 00-048011-62616-1 00-048011-62617-8 00-051115-25150-4	62-3498-1060-6 62-3498-5060-2 62-3498-3960-5 62-3498-8360-3
Pipe Sealant								
HP42	Lock/seal medium pipe threads. Prevents vibration loosening and leaks.	500	-65 to 300 (-54 to 149)	15	24	50mL bottle 250mL bottle	00-054007-99630-9 00-054007-99631-6	62-3474-5060-3 62-3474-3950-7
HP45 (Purple)	High pressure sealant for all hydraulic and pneumatic fittings.	14,000	-65 to 300 (-54 to 149)	4 hours	24	50mL bottle 250mL bottle	00-048011-62721-2 00-048011-62722-9	62-3477-5060-6 62-3477-3960-9
PS65 (White)	General purpose for applications requiring easy disassembly.	Paste	-65 to 300 (-54 to 149)	2 hours	24	50mL tube 250mL tube 1 liter bottle	00-048011-62711-3 00-048011-62712-0 00-048011-62713-7	62-3701-5067-4 62-3701-3967-7 62-3701-8360-0
PS67 (White)	Fast curing pipe sealant for inactive surfaces such as stainless steel.	Paste	-65 to 400 (-54 to 204)	15 – 30	24	50mL tube 250mL tube 1 liter bottle	00-048011-62714-4 00-048011-62715-1 00-048011-62716-8	62-3478-5067-9 62-3478-3967-2 62-3478-8360-5
PS77	Lock/seal medium to coarse pipe threads. Prevents vibration, loosening and leaks.	15,000 @ 20 RPM	-65 to 300 (-54 to 149)	15	24	50mL tube 250mL tube	00-054007-99635-4 00-054007-99636-1	62-3707-5067-1 62-3707-3967-4

THREADLOCKERS



RETAINING COMPOUNDS



3M™ Scotch-Weld™ Anaerobic Adhesives (cont.)

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Product (Color)	Key Features	Typical Viscosity (cps)	Temperature Range °F (°C)	Time to Handling (minutes)	Full Cure (hours)	Size	UPC	Stock #
Retaining Compound								
RT09 (Green)	For tight tolerances and press fit augmentation.	125	-65 to 300 (-54 to 149)	10 – 30	24	10mL bottle 50mL bottle 250mL bottle 1 liter bottle	00-048011-62661-1 00-048011-62662-8 00-048011-62663-5 00-051115-31977-8	62-3435-1060-8 62-3435-5060-4 62-3435-3960-7 62-3435-8360-3
RT20G (Green)	For assembly of automotive/ marine cylinder liners and heat exchanger tubes.	7,000	-65 to 450 (-54 to 232)	30 – 40	24	10mL bottle 10/CV 10mL bottle 300/CV 50mL bottle 250mL bottle	00-048011-62664-2 00-051115-31751-4 00-048011-62665-9 00-048011-62666-6	62-3434-1060-1 62-3434-1360-5 62-3434-5060-7 62-3434-3960-0
RT38 (Green)	Fast setting, high strength for bearings, bushings or sleeves on shafts or in housings.	2,500	-65 to 300 (-54 to 149)	10 – 15	24	10mL bottle 50mL bottle 250mL bottle	00-051115-81282-8 00-051115-81283-5 00-051115-81284-2	62-3460-1060-6 62-3460-5060-2 62-3460-3960-5
RT41 (Tan)	Medium strength for cylindrical parts. Easier disassembly for service and bearing re-use.	600	-65 to 300 (-54 to 149)	15 – 20	24	250mL bottle	00-048011-62724-3	62-3484-3960-5
RT48	High strength bonds for cylindrical parts.	600	-65 to 300 (-54 to 149)	10	24	50mL bottle 250mL bottle	00-054007-99632-3 00-054007-99633-0	62-3480-5060-0 62-3480-3950-4
Gasket Maker								
GM10 (Red)	Masking or dressing gaskets in rigid assemblies. Can be screen printed. High temperature resistance.	Paste	-65 to 400 (-54 to 204)	30	24	50mL tube	00-048011-62652-9	62-3453-5067-2
GM18 (Red)	Instant flexible seal without a primer on mating aluminum flanges.	Paste	-65 to 300 (-54 to 149)	30	24	300 gram cart. 50mL tube	00-048011-62660-4 00-048011-62658-1	62-3454-3362-7 62-3454-5067-0
Activators								
AC649	Acetone-based green primer for inactive or very cold surfaces. 30-day part life for pre-application. California compliant.	< 3	n/a	< 5	24	2 fl. oz. bottle 8 fl. oz. bottle 4 liter can	00-048011-62708-3 00-048011-62709-0 00-048011-62707-6	62-3918-0860-7 62-3918-3760-6 62-3918-7560-6

Adhesives

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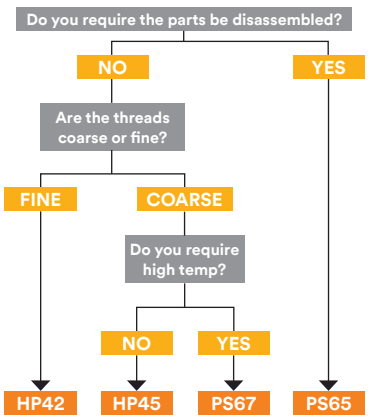
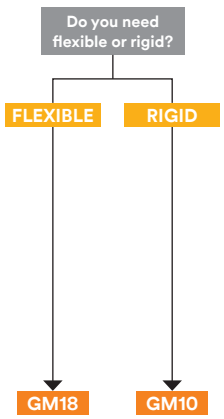
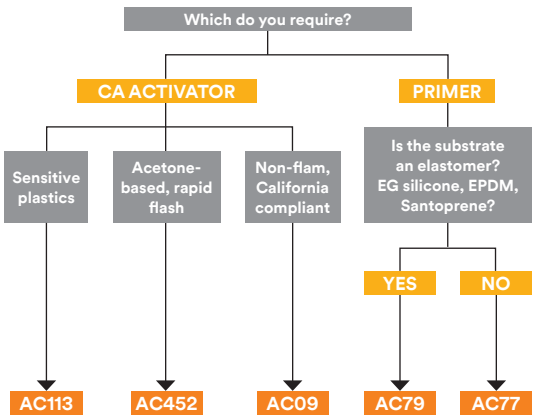
PIPE SEALANTS



GASKET MAKERS



SURFACE PREPARATION



3M™ Scotch-Weld™ EPX™ Applicators and Nozzles

For low volume applications and take-it-to-the-job convenience, the 3M™ EPX™ Plus II and 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.

Product	Replacement Plunger Orders	37mL (2:1) and 42mL (2:3)	45mL (10:1)	50mL (1:1)	200mL (2:1 & 1:1)	400mL (2:1 & 1:1)	490mL (10:1)	Static Mixing Nozzle Options
3M™ Scotch-Weld™ EPX™ Plus II Applicator **Stock #:** 62-9170-9930-1 **UPC:** 0-00-21200-50004-6  85	**1:1 Plunger** **Stock #:** 62-9170-9911-1 **UPC:** 0-00-21200-50005-3			■				**3M™ Scotch-Weld™ EPX™ Mixing Nozzle** Square Gold, 37mL and 50mL **Stock #:** 62-9171-9153-8 **UPC:** 0-00-21200-50008-4  86
								3M™ Scotch-Weld™ EPX™ Mixing Nozzle Helical White, 37mL and 50mL **Stock #:** 62-9178-9150-9 **UPC:** 0-00-51115-81449-0 87
	2:1 Plunger **Stock #:** 62-9170-9921-0 **UPC:** 0-00-21200-50006-0	■						**3M™ Scotch-Weld™ EPX™ Mixing Nozzle** Square Gold, 37mL and 50mL **Stock #:** 62-9171-9153-8 **UPC:** 0-00-21200-50008-4  86
								3M™ Scotch-Weld™ EPX™ Mixing Nozzle Helical White, 37mL and 50mL **Stock #:** 62-9178-9150-9 **UPC:** 0-00-51115-81449-0 87
	10:1 Plunger **Stock #:** 62-9160-9910-4 **UPC:** 0-00-51115-69044-0		■					**3M™ Scotch-Weld™ EPX™ Mixing Nozzle** Square, 45mL **Stock #:** 62-9154-9136-9 **UPC:** 0-00-51115-69043-3  88
3M™ EPX™ Metal Applicator 50mL **Stock #:** 62-9740-9935-0 **UPC:** 0-00-21200-21789-0  89	**2:1 Plunger** **Stock #:** 62-9744-9930-3 **UPC:** 0-00-21200-82314-5	■		■				**3M™ Scotch-Weld™ EPX™ Mixing Nozzle** Square Gold, 37mL and 50mL **Stock #:** 62-9171-9153-8 **UPC:** 0-00-21200-50008-4  86
								3M™ Scotch-Weld™ EPX™ Mixing Nozzle Helical White, 37mL and 50mL **Stock #:** 62-9178-9150-9 **UPC:** 0-00-51115-81449-5 87
3M™ EPX™ Pneumatic Applicator 50mL **Stock #:** 62-9781-9930-5 **UPC:** 0-00-21200-83528-5  90	**N/A**	■		■				**3M™ Scotch-Weld™ EPX™ Mixing Nozzle** Square Gold, 37mL and 50mL **Stock #:** 62-9171-9153-8 **UPC:** 0-00-21200-50008-4  86
								3M™ Scotch-Weld™ EPX™ Mixing Nozzle Helical White, 37mL and 50mL **Stock #:** 62-9178-9150-9 **UPC:** 0-00-51115-81449-5 87
3M™ Scotch-Weld™ EPX™ Manual Applicator 200mL **Stock #:** 62-9136-9930-2 **UPC:** 0-00-21200-87977-7  91	**2:1 Plunger** **Stock #:** 62-9136-9938-5 **UPC:** 0-00-21200-87981-4				■			**3M™ Scotch-Weld™ EPX™ Mixing Nozzle** Square Gold, 200mL and 400mL **Stock #:** 62-9176-9127-1 **UPC:** 0-00-21200-97331-4  86
								3M™ Scotch-Weld™ EPX™ Mixing Nozzle Helical White, 200mL and 400mL **Stock #:** 62-9142-9930-0 **UPC:** 0-00-21200-87982-1 87

Product	37mL (2:1) and 42mL (2:3)	45mL (10:1)	50mL (1:1)	200mL (2:1 & 1:1)	400mL (2:1 & 1:1)	490mL (10:1)	Static Mixing Nozzle Options
3M™ EPX™ 200mL, 250mL, 400mL Manual Applicator **Stock #:** 62-9148-9930-7 **UPC:** 0-00-51111-98073-6  92				■	■		**3M™ Scotch-Weld™ EPX™ Mixing Nozzle** Square Gold, 200mL and 400mL **Stock #:** 62-9176-9127-1 **UPC:** 0-00-21200-97331-4  93 **3M™ Scotch-Weld™ EPX™ Mixing Nozzle** Helical White, 200mL and 400mL **Stock #:** 62-9142-9930-0 **UPC:** 0-00-21200-87982-1 94
3M™ EPX™ 490mL Manual Applicator **Stock #:** 62-9182-9930-6 **UPC:** 0-00-51115-71115-2  95						■	**3M™ Scotch-Weld™ EPX™ Mixing Nozzle** Helical Orange, 490mL **Stock #:** 62-9158-9136-0 **UPC:** 0-00-51115-69042-6  96 **3M™ Scotch-Weld™ EPX™ Mixing Nozzle** Square Green, 490mL **Stock #:** 62-9184-9490-7 **UPC:** 0-00-51115-81619-2  97
3M™ Scotch-Weld™ EPX™ Pneumatic Applicator 200mL **Stock #:** 62-9140-9930-4 **UPC:** 0-00-21200-87978-4  98				■			**3M™ Scotch-Weld™ EPX™ Mixing Nozzle** Square Gold, 200mL and 400mL **Stock #:** 62-9176-9127-1 **UPC:** 0-00-21200-97331-4  93 **3M™ Scotch-Weld™ EPX™ Mixing Nozzle** Helical White, 200mL and 400mL **Stock #:** 62-9142-9930-0 **UPC:** 0-00-21200-87982-1 94
3M™ EPX™ 400mL Pneumatic Applicator **Stock #:** 62-9145-9930-3 **UPC:** 0-00-21200-87979-1  99					■		**3M™ Scotch-Weld™ EPX™ Mixing Nozzle** Square Gold, 200mL and 400mL **Stock #:** 62-9176-9127-1 **UPC:** 0-00-21200-97331-4  93 **3M™ Scotch-Weld™ EPX™ Mixing Nozzle** Helical White, 200mL and 400mL **Stock #:** 62-9142-9930-0 **UPC:** 0-00-21200-87982-1 94
3M™ EPX™ 490mL Pneumatic Applicator **Stock #:** 62-9152-9930-9 **UPC:** 0-00-51115-69041-9  100						■	**3M™ Scotch-Weld™ EPX™ Mixing Nozzle** Helical Orange, 490mL **Stock #:** 62-9158-9136-0 **UPC:** 0-00-51115-69042-6  96 **3M™ Scotch-Weld™ EPX™ Mixing Nozzle** Square Green, 490mL **Stock #:** 62-9184-9490-7 **UPC:** 0-00-51115-81619-2  97
Standard Caulk Gun	3M™ Concrete Repair Urethane 8.4 oz Cartridges						**3M™ Concrete Repair 8.4 oz Cartridge Nozzles** **Stock #:** 62-9637-9935-8 **UPC:** 0-00-48011-53382-7  101

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	Size	Description	Work Life	Initial Cure	Full Cure
DP600 Gray Self-Leveling	400mL	Repair of cracks or spalls and setting anchors in floors or horizontal surfaces.	70 sec.	5 min.	1 hr.
DP600 Gray Non-Sag	400mL	Repair of cracks in walls and setting anchors in vertical surface Repair chipped or broken steps and ledges.	50 sec.	4 min.	1 hr.
Concrete Repair 600 Gray Self-Leveling	8.4 fl. oz.	Flows smoothly into cleaned cracks and gaps. Hardens in as little as 5 minutes. Use in common caulking guns.	70 sec.	5 min.	60 min.
DP5106 Gray	400mL	Helps relieve stress in large segments of concrete floors.	6 min.	40 min.	24 hr.
Manual Dispenser 98073	400mL	Heavy-duty applicator.	n/a	n/a	n/a
Pneumatic Dispenser 87979	400mL	Applicator for high volume jobs.	n/a	n/a	n/a
Mix Tip — Higher Throughput 97331	400mL	General use tip.	n/a	n/a	n/a
Mix Tip — Longer Reach 87982	400mL	Alternative nozzle with longer reach.	n/a	n/a	n/a
Mixing Nozzle (threaded) 53382	8.4 fl. oz.	Mixes Concrete Repair 600.	n/a	n/a	n/a

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™ PUR Adhesive Systems

Production Power of Dual Technologies in One Self-Contained System

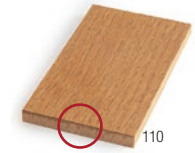
With the hand-held 3M™ Scotch-Weld™ PUR Adhesive System, you have the practical benefits of two technologies in your assembly operation. This single component system combines structural adhesive benefits and hot melt adhesive speed for wood, plastic and more.

1. **Performance benefits typical of structural adhesive technology**
   - **Greater than 1,000 lbs. holding strength,** exceeding strength of conventional hot melt and PVA adhesives
   - **Save finishing steps** with the elimination of nails and other mechanical fasteners in many applications
2. **Production benefits typical of hot melt adhesive technology**
   - **Fast set** and handling strength in as few as 15 seconds helps minimize or eliminate fixturing to speed assembly
   - **Low VOCs** and 100% solids eliminate drying and ventilation equipment, and will not attack plastics
   - **Choice of open times** and viscosities
   - **One-component and moisture-curing** eliminates metering, mixing and curing time and equipment

Thin, flexible bond line to improve fit, appearance and durability


109

Two pieces of oak are edge spliced with the 3M™ Scotch-Weld™ PUR Adhesive System.


110

After staining, the bond line is hard to find. Look inside the circle.


111

The wood fails before the bond line in this test and many other applications.



105

Choice of viscosities and open time to match application requirements for bonding wood to wood as well as wood to other substrates.


38

Bond wood or plastic trim to wood cabinet doors.


106

Bond plastic emblem to glass without fixturing.


107

Bond delicate trim pieces to wood and other materials.


108

Bond mirrors to wood with immediate handling strength to keep assembly moving.


112

Adhesive bead applies neatly to countertop edging to eliminate nails and the extra work of putty and sanding.


113

Adhesive bonds extruded aluminum bracket to the laminate covering of a honeycomb panel.

3M™ Scotch-Weld™ PUR Adhesive Systems

292

Typical Applications Where Strength and Fast Production Cycles are Required

Household and Office Furnishings

- Wood or plastic decorative trim and moldings for furniture and cabinets
- Edge moldings for countertops, tables, shelving and desks
- Wood of MDF drawer bottoms, backs and facings
- Fabric and leather in furniture upholstery and trim
- Modular office wall partitions

Windows and Doors

- Interior and exterior wood and metal household door assembly
- Bond and seal wood or plastic stiles and rails in shutters
- Wood muntin bars to window glass
- Rubber insulation to wood, plastic or metal

Other Examples

- Fiberglass to wood in marine interiors
- Metal to laminated honeycomb in trade show booths
- Plastic to plastic in point of purchase retail displays

System Components

- Electrically-heated pneumatic applicator dispenses adhesive at 250°F (121°C) with the squeeze of a trigger
  - Easy to use and maintain system with unique disposable nozzle design
- Adhesives with a range of properties including adhesion in difficult-to-bond jobs such as hardwood miter corners
- Optional pre-heater to keep cartridges ready to use



114

Bond extruded plastic edge molding to particle board core.



31

3M™ Scotch-Weld™ PUR Adhesives are suitable for bonding a variety of joint types and configurations, such as this mortise and tenon.



21

3M™ Scotch-Weld™ PUR Adhesives

Product	Description	Viscosity @ 250°F (121°C) [CPS]	Color	Open Time[1] (min.)	Set Time[2] (sec.)	Shore D	Tensile Strength (PSI)	Elongation (%)
EZ250015	Fast set time for wood and select plastics.	7,000	White/Off-White	1.5	15	65	3,900	750
EZ250030	Fast set time for many plastics including polystyrene and polyacrylic.	13,000	White/Off-White	2	30	50	3,900	725
EZ250060	Medium set time for wood and select plastics.	7,000	White/Off-White	2	60	60	4,200	675
EZ250120	Medium set time, low viscosity and very thin bond line for wood.	3,000	White/Off-White	4	120	60	4,000	625
EZ250150	Long open and set times for wood, plastics, and material combinations such as aluminum or glass to plastics or wood.	9,000	White/Off-White	4	150	45	3,300	700
EZ250200	Long open time and low viscosity for wood, plastics and many other material combinations.	2,750	White/Off-White	3	120	30	1,625	400

1 – The maximum time between the application of the adhesive and when the parts must be joined together. This information is based on 1/8-inch bead and non-metallic substrates at 75°F (20°C).
2 – Also known as fixturing/clamping time. The minimum amount of time required for the adhesive to solidify and hold the parts together (able to support a tensile load of 5 psi).

Shelf Life

For cartridge and 2K foil packs, 12 months is the maximum amount of time an end-user has to use the product while stored within the conditions recommended by 3M.

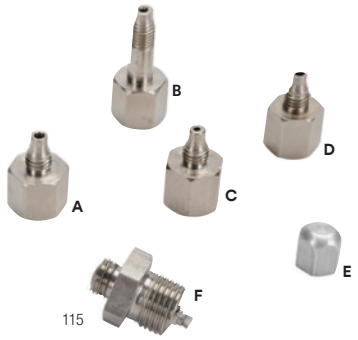
Note: The technical information and data on these pages should be considered representative or typical only and should not be used for specification purposes.

3M™ Scotch-Weld™ PUR Adhesive Systems

292

Product	Description	Viscosity @ 250°F (121°C) [CPS]	Color(s)	Open Time[1] (min.)	Set Time[2] (sec.)	Shore D	Tensile Strength (PSI)	Elongation (%)
TE015	Extrudable with very fast set time. Bond wood and selected plastics.	7,000	White/Off-White	1.5	15	65	3,950	750
TE030	Extrudable with fast set time. Bond wood and selected plastics.	16,000	White/Off-White	1	30	60	3,800	725
TE031	Extrudable with fast set time. Bond a wide variety of plastics, including polystyrene and polyacrylic.	13,000	White/Off-White, Black	2	30	50	3,900	725
TE040	Extrudable with fast set time. Low viscosity. Strong, flexible bonds. Bond plastics, wood, aluminum and glass.	7,000	White/Off-White, Black	2	40	35	2,750	860
TE100	Extrudable with medium set time. Bond wood and selected plastics. Thin bond lines.	7,000	White/Off-White, Black	2	60	61	4,200	675
TE200	Extrudable with fast set time. Low viscosity. Bond wood and selected plastics. Thin bond lines.	3,000	White/Off-White	4	125	60	4,000	625
TS230	Sprayable/extrudable with long set time. Bond variety of plastics, including polystyrene and polyacrylic. Bond aluminum and glass to plastic and wood.	9,000	White/Off-White, Black	4	150	45	3,300	700
TS115 HGS	Sprayable/extrudable/roll coatable with fast set time. Bond wood, FRP, other plastics to themselves, metal and glass.	16,000	White/Off-White	10	60	47	3,200	600

1 – The maximum time between the application of the adhesive and when the parts must be joined together. This information is based on 1/8-inch bead and non-metallic substrates at 75°F (20°C).
2 – Also known as fixturing/clamping time. The minimum amount of time required for the adhesive to solidify and hold the parts together (able to support a tensile load of 5 psi).



Application-Matched Tips*

A) 0.090" tip for medium flow applications
B) 0.072" extension tip for improved sight line in hard-to-reach areas
C) 0.062" tip for low flow applications
D) 0.125" tip for high flow application
E) Threaded cap for sealing tip after use
F) PUR Applicator Valve Assembly to be used with applicator tips and cap

*For use with optional main nozzle assembly system (UPC: 021200-89514)



Benchmount System

Foot pedal activation for hands-free operation of 3M™ Scotch-Weld™ PUR Easy 250 Applicator.



Container Sizes to Meet Your Production Volume

- 10 fl.oz. cartridges
- 2k foil packs
- 5 gallon pail
- 55 gallon drum

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 Spray Adhesives

292

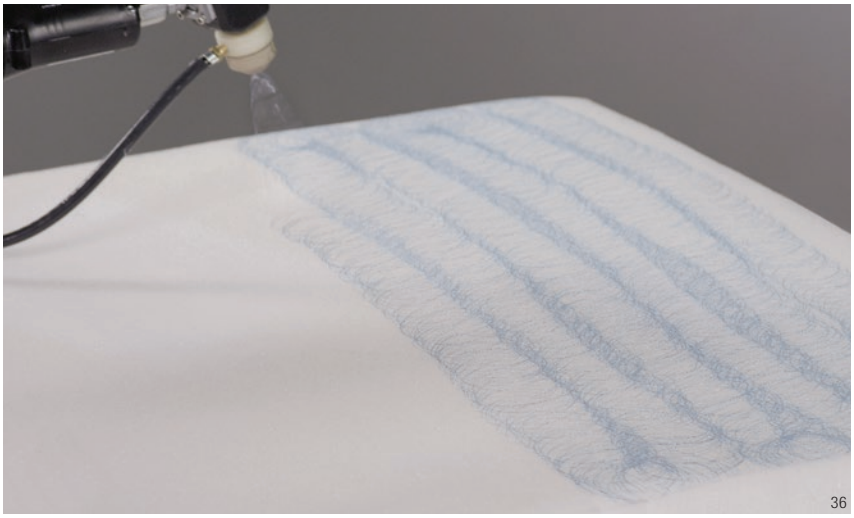
Immediate Bonding of Foam and Other Lightweight Materials

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	6111 HT/6111 HT Blue	6116
Description	Standard Product	Higher Heat Resistance	Low Viscosity
Color	Tan	Tan/Blue	White
Open Time[1] One Surface (Foam/PVC)	1 min.	3 min.	2 min.
Open Time[1] Two Surface (Foam/Foam)	6 min.	8 min.	6 min.
Heat Resistance[2]	145°F (63°C)	175°F (79°C)	160°F (71°C)
Peel Adhesion[3] (PIW)			
Fir	34.4	25.6	21.4
ABS	12.1	16.5	20.3
Polypropylene	46.3	14.4	16.4
PVC	9.9	16.3	n/a
Cold Rolled Steel	16.5	29.9	20.4
High Density Polyethylene	8.2	2.3	n/a

Typical Coverage	Smooth Surface	Textured Surface
Two Surface Applications	1–2 grams per square foot	2–3 grams per square foot
One Surface Application	3–5 grams per square foot	5–7 grams per square foot

1 – Bonds were made by spraying adhesive onto 3/4 in. 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 inches/minute 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 thermoplastic 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



127

3M™ Hot Melt Applicator LT. Low-medium volume using low melt adhesive.
UPC# 021200-82245

B



128

3M™ Hot Melt Applicator LT with Quadrack™ Converter. Medium volume using low melt adhesive.
UPC# 021200-89447

C



129

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

D



130

3M™ Hot Melt Applicator AE II LT. Low volume using low melt adhesive.
UPC# 051115-25567

E



131

3M™ Hot Melt Applicator TC. Low-medium volume.
UPC# 021200-82244

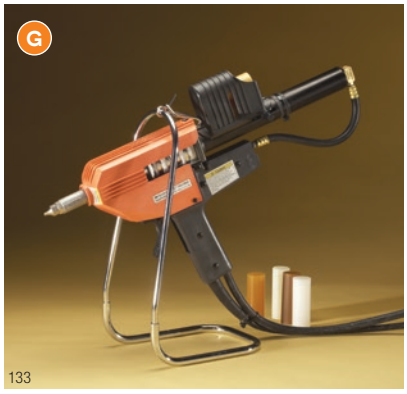
F



132

3M™ Hot Melt Applicator TC with Quadrack™ Converter. Medium volume.
UPC# 021200-89445

G



133

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

H



134

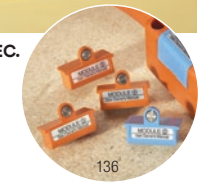
3M™ Hot Melt Applicator AE II. Low volume.
UPC# 021200-96594

I



135

3M™ Hot Melt Applicator EC. Medium volume; variable temperature control.
UPC# 021200-89519



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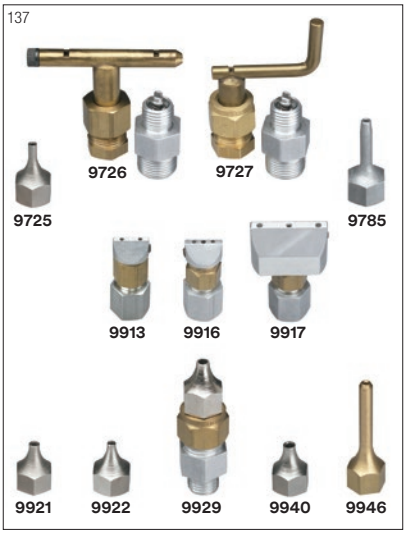
3M™ Hot Melt Applicators

Product	Weight[1]	Output[2] (lb/hr)	Temperature[3] °F (°C)	Power (120V)	Adhesive Dia. x L (in.)	Features	Warranty (Months)
Low Melt Applicators							
A **LT**	10.0 oz.	2.6	265 (129)	150W	5/8 × 2 TC	For use with low melt adhesives.	12
B **LT with Quadrack Converter**	13.8 oz.	2.6	265 (129)	150W	5/8 × 8 Q	For use with low melt adhesives.	12
C **Pneumatic PG II LT with Speedloader**	4.3 lbs.	6.0	265 (129)	500W	1 × 3 PG	Pneumatic high output for low melt adhesives.	12
D **AE II LT**	20.0 oz.	4.0	265 (129)	100W	1/2 × 12 AE	All electric operation for low melt adhesives.	6
Hot Melt Applicators							
E **TC**	10.0 oz.	3.5	385 (196)	150W	5/8 × 2 TC	Easy to use with standard melt adhesives.	12
F **TC with Quadrack Converter**	13.8 oz.	3.5	385 (196)	150W	5/8 × 8 Q	Easy to use with standard melt adhesives.	12
G **Pneumatic PG II with Speedloader**	4.3 lbs.	7.5	385 (196)	500W	1 × 3 PG	Pneumatic high output for standard melt adhesives.	12
H **AE II**	20.0 oz.	4.0	400 (204)	100W	1/2 × 10 AE 1/2 × 12 AE	All electric operation for standard melt adhesives.	6
Variable Applicators							
I **EC**	24.0 oz.	5.5	260–450 (127–232)	350W	5/8 × 8 Q	Temperature modules to operate with standard and low melt adhesives.	12

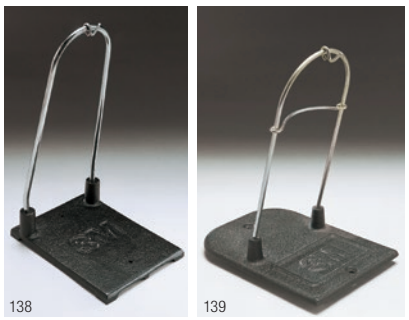
1 – Weight shown is for applicator only; does not include adhesive capacity.
2 – Adhesive output will vary with conditions and the adhesive used. Values are approximate and are based on maximum steady-state flow.
3 – Temperatures shown are nominal control values. Actual temperature will range slightly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

Accessories to Improve Your Productivity

Product	Description	UPC	SN
9725	.072" Mini Extension Tip	021200-21786	62-9725-9930-2
9726	"T" Tip Assembly	021200-64542	62-9726-9930-0
9727	"L" Tip with Adapter	021200-64543	62-9727-9930-8
9785	.07" Tapered Aluminum Extension (all applicators)	021200-82554	62-9785-9930-6
9913	2-hole Spreader	021200-21830	62-9913-9930-4
9916	3-hole Spreader	021200-21836	62-9916-9930-7
9917	3-hole 1" Spreader	021200-21837	62-9917-9930-5
9921	.090" Fluted Tip	021200-21840	62-9921-0066-9
9922	.063" Fluted Tip	021200-21841	62-9922-0066-7
9929	High Viscosity Valve (TC, EC, PG II)	021200-64840	62-9729-9930-4
9940	.125" Fluted Tip	021200-22036	62-9940-6920-1
9946	.072" 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
TC and LT Palm Trigger	For use with Quadrack converter	021200-82701	62-9761-9930-7
Quadrack Converter	To add Quadrack capability to TC and LT applicators	021200-83536	62-9275-9935-7
Valve Assembly Kit	Nozzle and valve replacement for TC, EC, LT	021200-21714	62-9234-9930-5



A general purpose tip (.090) is supplied with each 3M™ Hot Melt Applicator. To increase productivity, optional tips can provide multiple beads, flat ribbons, guided beads for carton sealing and extended reach.



Heavy-Duty Benchstands provide added convenience.



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



Foot Pedal

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



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	Color	FDA Listed[1]	UL 94 Listing	Features/Application Ideas
Low Melt Technology: Applied 250–270°F (121–132°C)				
3750LM	Tan	—	n/a	Excellent "hot tack", fast setting for corrugated, beadboard, repack, recoup. Economical, general purpose. Use with AE II LT applicator only.
3762LM*	Light Amber	Yes	n/a	Excellent "hot tack", fast setting for corrugated, beadboard, recouperage, repacking chipboard and wood. Economical, general purpose. Use with low melt applicator only.
3776LM	Tan	—	n/a	Bonds variety of plastics, woods and light-gauge metals. Use with low melt applicator only.
3792LM*	Clear	Yes	V2	Clear, multi-purpose for wood, coated paper, polyolefins and other heat-sensitive materials. P.O.P. displays. Use with low melt applicator only.
3798LM*	Light Yellow	Yes	n/a	Removable "gummy glue" for many substrates. Removes easily without residual tack. Use with low melt applicator only.
Hot Melt Technology: Applied 350–385°F (177–196°C)				
3731*	Tan	—	n/a	High heat resistance. Bonds plastics including polyethylene, polypropylene.
3738*	Tan	Yes	V2	High delivery rate and long bonding range. General purpose for foundry sand cores, wood bonding, corrugated, selected plastics and chipboard.
3747	Tan	Yes	n/a	General purpose for wide variety of plastics, wood and lightweight metals.
3748*	Off-White	Yes	V2	Good thermal shock resistance. Non-corrosive to copper for many electronic applications. Bonds polyolefins.
3748 VO	Light Yellow	—	VO	Self-extinguishing version of 3748. Meets UL 1410 requirements.
3750	Tan	—	n/a	Low viscosity for high flow rate, increased production. Good hot tack, quick grab for packaging and woodworking.
3750	Clear	—	n/a	Low viscosity for high flow rate, increased production. Good hot tack, quick grab for packaging and woodworking.
3762	Tan	Yes	V2	Excellent "hot tack", fast setting for corrugated, beadboard, recouperage, repacking chipboard and wood. Economical, general purpose.
3764*	Clear	Yes	V2	Bonds variety of plastics including polycarbonate, polyethylene, and polypropylene. Flexible at low temperatures.
3779*	Amber	Yes	n/a	High heat resistance. High strength. Good fuel and oil resistance. Electronics.
3789*	Brown	Yes	V2	High performance for plastics. Impact resistant. Bonds vinyl and wood. Good fuel and oil resistance.
3792*	Clear	Yes	V2	Clear, multi-purpose for wood, corrugated, fabric, furniture, upholstery, novelties, and other lightweight materials.
3797	Off-White	Yes	V2	High ball and ring. Low viscosity. Good for electrical potting.
Bulk Only				
3794 Hi Tack PSA	Light Tan	Yes	n/a	Sprayable high tack PSA for bonding plastic, paper, metals, die-cut labels.
6111	Tan	—	n/a	Sprayable 100% solventless adhesive for most foams, fabrics, plastics, particle board and thin metal.
6111HT	Tan, Blue	—	n/a	Similar to 6111 but has higher heat resistance. Available in tan and blue.
6116	Off-White	—	n/a	Similar to 6111 but lower than normal viscosity and mainly used on fabrics.

*Also available in bulk.

1 – Made from components listed as indirect food additives under FDA regulations for adhesives (21 CFR 175.105)
2 – Brookfield Thermosel Viscometer in Centipoise
3 – ASTM E-28-6-7
4 – Highest temperature that the adhesive will support a 2 psi dead load
5 – Canvas to Douglas Fir
6 – Douglas Fir to Douglas Fir
7– 1/8" semicircular bead, Douglas Fir to Douglas Fir

	Sizes	EC Temp Control Modules	Viscosity CPS[2]	Delivery Time for 1" x 3" Cartridge (sec.)	Ball & Ring Melt Point[3] °F (°C)	Heat Resistance[4] °F (°C)	Peel Strength PIW[5] 72°F (22°C)	Shear Strength PSI[6] 72°F (22°C)	Open Time 1/8" Bead[7] (sec.)
	1/2" x 12" AE	n/a	4,000 @ 250°F	45	200 (95)	128 (54)	6	475	25
	5/8" x 8" Q 5/8" x 2" TC 1" x 3" PG 1/2" x 12"	1	4,000 @ 250°F	45	205 (96)	130 (54)	6	480	25
	5/8" x 8" Q 1/2" x 12" 1" x 3" PG	1	8,250 @ 250°F	47	184 (84)	140 (60)	9	600	40
	5/8" x 8" Q 5/8" x 2" TC 1" x 3" PG 1/2" x 12"	1	10,500 @ 250°F	57	178 (81)	140 (60)	13	350	40
	5/8" x 2" TC	n/a	9,500 @ 250°F	n/a	191 (88)	120 (49)	n/a	n/a	30
	5/8" x 8" Q 1" x 3" PG	5	12,000 @ 375°F	n/a	315 (157)	265 (130)	22	490	30
	5/8" x 8" Q 5/8" x 2" TC 1" x 3" PG 1/2" x 12" AE	4	2,875 @ 375°F	35	186 (86)	130 (54)	13	375	50
	5/8" x 8" Q 5/8" x 2" TC 1" x 3" PG 1/2" x 12" AE	4	4,100 @ 375°F	45	220 (104)	145 (63)	20	430	45
	5/8" x 8" Q 5/8" x 2" TC 1" x 3" PG	4	5,000 @ 375°F	65	292 (144)	175 (79)	18	250	45
	5/8" x 8" Q 5/8" x 2" TC 1" x 3" PG	4	5,000 @ 375°F	65	305 (152)	175 (79)	15	275	30
	1/2" x 12" AE	n/a	1,900 @ 375°F	30-40	200 (93)	125 (52)	6	500	n/a
	1/2" x 10" AE	n/a	4,800 @ 375°F	35-45	178 (81)	135 (57)	12	250	n/a
	5/8" x 8" Q 5/8" x 2" TC 1" x 3" PG 1/2" x 12" AE	3	1,870 @ 375°F	30	201 (94)	130 (54)	7	545	35
	5/8" x 8" Q 5/8" x 2" TC 1" x 3" PG 1/2" x 12" AE	4	6,000 @ 375°F	55	190 (88)	140 (60)	14	390	40
	5/8" x 8" Q 5/8" x 2" TC 1" x 3" PG	5	7,000 @ 375°F	75	325 (163)	300 (149)	18	700	25
	5/8" x 8" Q 1" x 3" PG	5	5,200 @ 375°F	70	270 (132)	220 (104)	16	570	50
	5/8" x 8" Q 5/8" x 2" TC 1" x 3" PG 1/2" x 12" AE	4	5,000 @ 375°F	45	179 (81)	140 (60)	13	250	50
	1" x 3" PG 5/8" x 2" TC	n/a	2,650 @ 375°F	55	304 (151)	170 (77)	10	350	30
	Bulk pillows	n/a	15,000 @ 325°F	n/a	224 (107)	120 (49)	16	n/a	> 60
	.75" x.75" chips	n/a	3,000–5,000 @ 375°F	n/a	224 (107)	145 (63)	34	n/a	1 surface: 60 2 surface: 360
	.75" x.75" chips	n/a	2,500–4,500 @ 375°F	n/a	284 (140)	175 (79)	26	n/a	1 surface: 180 2 surface: 480
	.75" x.75" chips	n/a	1,300 @ 375°F	n/a	199 (93)	160 (69)	20	n/a	1 surface: 120 2 surface: 300

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

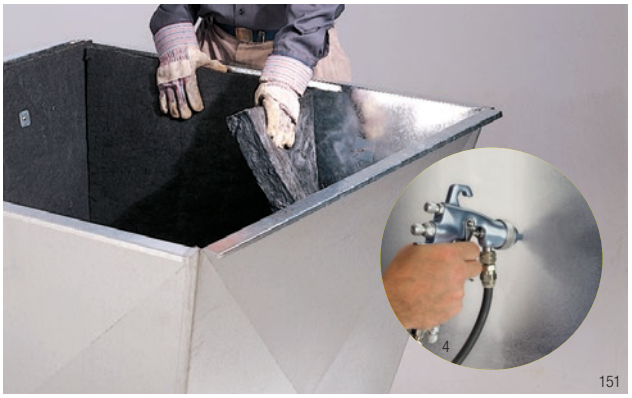
Solvent Based Adhesives

	Product	Requirement	Size Availability
Lead Product	**70**	**FAST TACKING**	
	77	Low soak in, mist spray	
	74NF	Non-flammable	

Water Based Adhesives

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

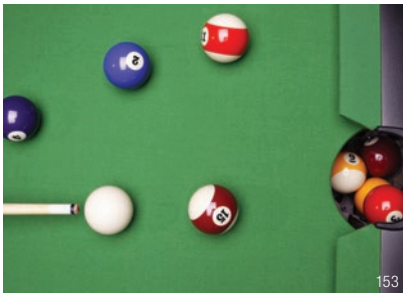
Aerosol Cylinder Bulk



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.

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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

Solvent Based Adhesives

	Product	Requirement	Size Availability
Lead Product	**74**	**SOFT BOND LINES**	
	92	High temperature resistance	
	74NF	Non-flammable	
	77	Low soak in, mist spray	

Water Based Adhesives

	Product	Requirement	Size Availability
Lead Product	**100NF**	**HIGH COVERAGE**	
	100NF + Activator	Faster initial strength	
	1000NF	One surface bonding, higher heat resistance	

Aerosol Cylinder Bulk



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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."



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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.

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.

Solvent Based Adhesives

	Product	Requirement	Size Availability
Lead Product	**94 CA**	**FAST TACKING, POSTFORMABLE**	
	90	High strength	
	94 ET	Longer open time, more aggressive tack	
	98 NF	Non-flammable	
	5	Very high temperature resistance	
	1099	Plasticizer resistance, harsh environments	

Water Based Adhesives

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

Aerosol Cylinder 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.





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.

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

High Performance Specialty Adhesives — Solvent and Water Based

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Rubber and Plastic

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

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



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.

Rubber and Gasket Adhesives

	Product	Requirement	Size Availability
Lead Product	**1300**	**NEOPRENE OR SBR BONDING**	
	1300L	Sprayable, low viscosity	
	847	Vinyl bonding, plasticizer resistant	
	4799	EPDM bonding	
	80	Aerosol	

Plastic Adhesives

	Product	Requirement	Size Availability
Lead Product	**1099**	**RESISTS WATER, OIL AND PLASTICIZER**	
	1099L	Sprayable, low viscosity	
	4693	Polyolefin bonding	
	2262	Clear drying	
	90	Aerosol	

Aerosol | Cylinder | Bulk



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).



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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™ 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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Freeing rusted nuts, bolts and frozen threaded parts are only a few of the many applications for 3M™ 5-Way Penetrant.

3M™ Aerosol Chemicals

Product	Key Characteristics	Available Format	Color	Application Method	Spray Pattern	VOC Content
Adhesive Remover	Citrus based. Fast acting. No residue left behind.	1 gallon, 5 gallon, 52 gallon	Pale Yellow	Brush/Roll/Spray	Mist	840g/L
		5 oz. Aerosol	Pale Yellow	Spray	Mist	100%
		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%
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%
5-Way Penetrant	Drives out moisture. Frees rusted bolts. Inhibits rust — lubricates, demoisturizes, inhibits corrosion, cleans and penetrates.	Aerosol	Amber	Spray	Mist	30%
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
- Non-flammable adhesives
- GREENGUARD™ Certified
- Range of open time (worklife)



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Spray patterns from 1–18+ inches 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



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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 (%)	VOCs (g/L)	Open Time (min)	Spray Pattern	Spray Applicator	Recommended Tips
General Purpose								
60 CA	General Purpose	43	42	>80	2–60	Web	Applicator	9501, 6501
Specialty								
70	Construction, Marine, RV, Polystyrene	21	41	544	1–60	Web	Applicator	QSS tip
74	Foam Bonding	22	36	563	1–15	Web	Applicator	9501, 6501
74NF	Foam Bonding	22	28	248	1–60	Web	Applicator	9501, 6501
77	Multi-Purpose	27	36	534	1–30	Mist	Applicator	250050, 650050
78 ET	Polystyrene	17	31	570	1–60	Web	Applicator	9501, 6501
High Performance, High Temperature Laminating								
90	Laminating	13	23	571	1–15	Web	Applicator	9501, 6501, 250050
92	Laminating	23	34	654	1–20	Web	Applicator	9501, 6501, 250050
94 CA	Laminating	28	28	79	1–15	Pebble	Applicator H	4001, 6501
94 ET	Laminating	28	34	<80	1–60	Pebble	Applicator H	9501, 6501, 4001
98NF	Laminating	20	25	254	1–60	Web	Applicator	9501, 6501, 4001

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).

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
Solvent Based Adhesives			
Neoprene Contact 5	5 gallon, 53 gallon	19%	High performance contact adhesive. Sprayable. Fast drying.
Neoprene Contact 10	1 qt, 1 gallon, 5 gallon, 54 gallon	23%	Brushable and rollable with higher coverage. Meets requirements of MMM-A-121, MMM-A-130B and A-A-1936A.
Heavy Duty 20	Aerosol	17%	Fast grab. Variable width spray pattern. Forms strong bonds to a variety of substrates.
Foam & Fabric 24	Aerosol	17%	Aggressive tack. Foam-tearing strength. Variable width lace spray pattern.
Multi-Purpose 27	Aerosol	21%	Fast tack. Lightweight applications. Mist spray pattern.
General Purpose 60 CA	5 gallon, 54 gallon	43%	High solids for increased coverage. High tack general purpose adhesive.
	Large, Int and Jumbo Cylinder	42%	
HoldFast 70	5 gallon, 52 gallon	26%	Extremely versatile and very fast tacking. Unique wide web spray pattern with heavy body and low soak-in. Bonds polystyrene without degrading surface.
	Large, Int and Jumbo Cylinder	21%	
Pressure Sensitive 72	Aerosol	15%	Permanently tacky and repositionable. Long open time. Variable width lace spray pattern.
Foam Fast 74	Aerosol	22%	Extremely fast tack. Soft non-dimpling glue line. Immediate foam tearing strength.
	52 gallon	36%	
	Large, Int and Jumbo Cylinder	22%	
Foam Fast 74 CA (Low VOC)	Aerosol	23%	Extremely fast tack. Soft non-dimpling glue line. Immediate foam tearing strength.
Repositionable 75	Aerosol	9%	Adheres in seconds. Extra long tack range. Repositionable.
Hi-Tack 76	Aerosol	13.5%	Fast tacking. One surface bonds. Variable width lace spray pattern.
Super 77™	Aerosol	25%	Low soak-in for long lasting bond. High coverage and aggressive tack. Bonds quickly in 15 seconds.
	5 gallon, 52 gallon	36%	
	Large Cylinder	27%	
Super 77™ CA Multi-Purpose (Low VOC)	Aerosol	19%	Aggressive tack. Quick bonding. Long bonding range.
Polystyrene 78	5 gallon	19%	Bonds polystyrene with no surface degradation. Fast grabbing and fast drying. Uniform spray pattern for fast and easy application.
	Aerosol		
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.
Hi-Temp Polystyrene 78HT	5 gallon, 54 gallon	27%	Bonds polystyrene with no surface degradation. High temperature resistance. Can be used for roofing membrane attachment.
	Large, Int and Jumbo Cylinder	15%	
Rubber And Vinyl 80	Aerosol	13%	High strength. High temperature resistance. Fast setting.
Hi-Strength 90	5 gallon, 52 gallon	23%	High strength. High temperature resistance.
	Large, Int and Jumbo Cylinder	13%	
	Aerosol	13%	
Hi-Strength 90 CA (Low VOC)	Aerosol	23%	High strength.
Hi-Strength 92	5 gallon, 54 gallon	34%	High strength. High temperature resistance. Versatile, high-tack adhesive.
	Large, Int and Jumbo Cylinder	23%	
Hi-Strength 94 ET (Low VOC)	5 gallon, 54 gallon	25%	Bonds many laminates, woods, and particle board. Long open time, low VOC. SCAQMD Rule 1168 compliance; helps contribute to LEED® Credits.
	Large, Int and Jumbo Cylinder	25%	
	Aerosol	21%	Meets CARB / OTC VOC Requirements; helps contribute to LEED® Credits.
Hi-Strength Postforming 94 CA (Low VOC)	5 gallon, 54 gallon	34%	High solids for increased coverage. Unique non-telegraphing spray pattern with postformable strength. Low VOC, SCAQMD 1168 and LEED® Compliant.
	Large, Int and Jumbo Cylinder	28%	
826 Plastic Adhesive	1 qt., 5 gallon	23%	Fast drying for many plastic films. Resists fuels, water and oil. Thin liquid.

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	Adhesive Strength	Color	Application Method	Bonding Range (Two Surfaces)	Flammability	Heat Resistance (SAFT)	Spray Pattern	VOC Content
	High	Light Yellow	Spray	10–60 min.	Flammable	300°F	Web	687g/L
	High	Light Yellow	Brush/Roll	10–60 min.	Flammable	300°F	Web	589g/L
	High	Clear	Spray	1–30 min.	Flammable	210°F	Web	52%
	Medium	Orange	Spray	30 sec.–30 min.	Flammable	170°F	Web	53%
	Low	Clear	Spray	15 sec.–10 min.	Flammable	140°F	Mist	59%
	Medium	Clear	Brush/Roll/Spray	1–60 min.	Flammable	170°F	Pebble	79g/L 73g/L
	Medium	Clear	Brush/Roll/Spray	1–60 min.	Flammable	190°F	Web	562g/L
	Medium	Blue	Spray	1 min.–8 hr.	Flammable	170°F	Web	55%
	Medium	Clear/Orange	Spray Brush/Roll/Spray	30 sec.–15 min.	Flammable	170°F	Web	<55% 352g/L 563g/L
	Medium	Clear/Orange	Spray	30 sec.–15 min.	Flammable	200°F	Web	<25%
	Low	Clear	Spray	5 sec.–60 min.	Flammable	110°F	Mist	58%
	High	Clear	Spray	1–60 min.	Flammable	230°F	Web	55%
	Low	Clear	Spray Brush/Roll/Spray Spray	15 sec.–15 min.	Flammable	150°F	Mist	54% 504g/L 535g/L
	Low	Clear	Spray	15 sec.–30 min.	Flammable	205°F	Mist	<25%
	Medium	Clear	Spray	1–15 min.	Flammable	190°F	Web	566g/L 62%
	Medium	Clear/Green	Spray	1–60 min.	Flammable	200°F	Web	622g/L
	Medium	Blue	Spray	1–60 min.	Flammable	230+°F	Web	611g/L
	High	Yellow	Spray	3–30 min.	Flammable	300+°F	Web	54%
	High	Clear	Brush/Roll/Spray Spray Spray	1–10 min.	Flammable	250°F	Web	356g/L 586g/L 54%
	High	Clear	Spray	1–30 min.	Flammable	200°F	Web	<25%
	High	Clear/Red	Spray	1–20 min.	Flammable	250+°F	Web	577g/L
	High	Clear/Red Clear/Red Clear	Spray Brush/Roll/Spray Spray	1–60 min.	Flammable	210°F	Pebble	<80g/L <80g/L <20
	High	Clear/Red	Brush/Roll/Spray Spray	1–15 min.	Flammable	210°F	Pebble	79g/L 79g/L
	Medium	Amber	Brush/Spray	Up to 45 min.	Flammable	—	Web	731g/L

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Solvent and Water Based Adhesives



Product	Available Format	Solids Weight Percent (Approx.)	Key Characteristics
Solvent Based Adhesives			
847 High Performance Rubber & Gasket Adhesive	5 oz, 1 qt, 1 gallon, 5 gallon, 54 gallon	36%	Quick drying and flexible with fuel and oil resistance. Able to reactivate with heat and solvent. Curable with heat.
847H High Performance Rubber & Gasket Adhesive	5 gallon	51%	High viscosity. Able to reactivate with heat and solvent. Curable with heat.
1099 High Performance Plastic Adhesive	5 oz, 1 qt, 1 gallon, 5 gallon, 54 gallon	34%	Fast drying and heat curable. Resists weathering, water, oil, plasticizer migration and aliphatic fuels.
1099L High Performance Plastic Adhesive	5 gallon, 54 gallon	24%	Sprayable version of 1099H. Fast drying and heat curable. Resists weathering, water, oil, plasticizer migration and aliphatic fuels.
1300 High Performance Rubber & Gasket Adhesive	5 oz, 1 pt, 1 qt, 1 gallon, 5 gallon,	37%	High immediate strength. Fast-drying and heat resistant for rubber and metal. Meets MIL-M-81288 and MMM-A-121.
1300L High Performance Rubber & Gasket Adhesive	1 qt, 1 gallon, 5 gallon, 54 gallon	30%	Lower viscosity for spraying. Fast-drying and heat resistant for rubber and metal. Meets MMM-A-121.
1357 High Performance Contact Adhesive	5 oz, 1 pt, 1 qt, 1 gallon, 5 gallon, 54 gallon (Light Yellow only 5 gallon and 55 gallon)	25%	Rapid build up to a very high strength bond for metal. Resists heat and continuous load stress. Meets MMM-A-121 requirements.
1357L High Performance Contact Adhesive	5 gallon, 54 gallon	18%	Low viscosity. Resists heat and continuous load stress. Meets MMM-A-121 requirements.
2262 Plastic Adhesive	1 qt, 5 gallon	27%	Clear and non-staining. Resists plasticizer migration for bonding many flexible vinyls. Fast tack.
4475 Industrial Plastic Adhesive	5 oz, 1 qt, 5 gallon	43%	Clear plastic adhesive. Fast drying. Strong environmental resistance.
4491 Industrial Adhesive	5 gallon, 54 gallon	24%	Securely bonds vinyl with resistance to plasticizer migration. Versatile plastic adhesive. Excellent environmental resistance.
4550 Industrial Adhesive	5 gallon, 54 gallon	33%	Adding tack to large surfaces. Translucent. Long bonding range.
4693 High Performance Industrial Plastic Adhesive	5 oz, 1 qt, 1 gallon, 5 gallon, 54 gallon, (High viscosity only 5 oz)	26%	Excellent plastic adhesive. Long tack range. Water and heat resistant.
4799 Industrial Adhesive	5 oz, 1 qt, 1 gallon, 5 gallon	32%	Water and heat resistant. Dries rapidly. EPDM bonder.
Non-flammable Solvent Adhesives			
Foam Fast 74NF	Mini, Large, Int and Jumbo Cylinder	24%	Non-flammable. Fast tack with foam tearing strength. Soft non-dimpling bond line.
Hi-Strength 98NF	5 gallon, 54 gallon	24%	Non-flammable, fast tack adhesive. High temperature resistance. Versatile, high-tack adhesive.
	Mini, Large, Int and Jumbo Cylinder	21%	
Water Based Adhesives			
Fastbond™ Contact Adhesive 30NF	1 qt, 1 gallon, 5 gallon, 52 gallon, 270 gallon	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.
Fastbond™ Contact Adhesive 30H	52 gallon, 270 gallon	48%	Long bonding range with high immediate bond strength. Economical high coverage. Low mist version of 30NF.
Fastbond™ Insulation Adhesive 49	5 gallon box, 5 gallon, 52 gallon, 100 gallon, 255 gallon	55%	Fast tacking, high performance, pressure sensitive adhesive for lightweight materials. Low VOC and GREENGUARD® Certified. UL MAGW2 component recognition.
Fastbond™ Foam Adhesive 100NF	1 gallon, 5 gallon, 52 gallon, 100 gallon, 255 gallon	47%	One-part, fast setting — foam and fabric adhesive. GREENGUARD® Certified. Can be activated for immediate bonding.
Fast Tack 1000NF	1 gallon, 5 gallon, 52 gallon, 255 tote	49%	One-part immediate handling strength. Low overspray and high coverage. Bonds a wide variety of substrates with high temperature resistance .
Fastbond™ 2000NF	5 gallon, 50 gallon, 270 gallon	49%	Water dispersed, activated adhesive. Immediate bonding and handling strength without forced drying. GREENGUARD® Certified.
Pressure Sensitive Adhesive 4224NF	5 gallon , 52 gallon	41%	Water-based, plasticizer resistant adhesive. Permanent pressure sensitive adhesive with an aggressive tack. Low VOC and GREENGUARD® Certified.
Fastbond™ Spray Activator 1	1 qt, 1 liter spray bottle, 5 gallon, 30 gallon	n/a	GREENGUARD® Certified. Low VOC and LEED® Compliant. UL MAGW2 component recognition.

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	Adhesive Strength	Color	Application Method	Bonding Range (Two Surfaces)	Flammability	Heat Resistance (SAFT)	Spray Pattern	VOC Content
	Medium	Brown	Brush/Flow	Up to 15 min.	Flammable	—	Brush	0g/L
	Medium	Brown	Brush/Flow	Up to 10 min.	Flammable	—	Brush	5g/L
	High	Light Tan	Brush/Flow	Up to 40 min.	Flammable	—	Brush/Flow	5g/L
	High	Light Tan	Brush/Spray	Up to 20 min.	Flammable	—	Brush/Flow	443g/L
	High	Yellow	Brush/Flow	Up to 12 min.	Flammable	300°F	Brush/Flow	667g/L
	High	Yellow	Brush/Spray	Up to 8 min.	Flammable	300°F	Brush/Spray	≤706g/L
	High	Gray-Green/ Light Yellow	Brush/Spray	10–30 min.	Flammable	300°F	Web	≤582g/L
	High	Gray-Green	Spray	10–30 min.	Flammable	300°F	Web	515g/L
	High	Clear	Brush/Flow	2–20 min.	Flammable	—	Brush/Flow	177g/L
	Medium	Clear	Brush/Flow	1–10 min.	Flammable	—	Brush/Flow	600g/L
	High	Light Tan	Brush/Roll/Spray	Up to 20 min.	Flammable	—	Web	190g/L
	Low	Clear	Brush/Roll/Spray	10–30 min.	Flammable	—	Web	516g/L
	Medium	Clear	Brush/Spray	10–60 min.	Flammable	—	Web	597g/L
	Medium	Black	Brush/Trowel	1–10 min.	Flammable	—	Brush/Trowel	628g/L
	Medium	Red/Clear	Spray	10–60 min.	Non-flammable	210°F	Web	48g/L
	High	Red/Clear	Spray	10–60 min.	Non-flammable	240°F	Web	935g/L 907g/L
	High	Neutral/Green	Brush/Roll/Spray	30 min.–4 hr.	Non-flammable	300°F	Mist	37g/L
	High	Green	Brush/Roll/Spray	30 min.–4 hr.	Non-flammable	300°F	Mist	37g/L
	Low	Clear	Brush/Roll/Spray	5 min.–8 hr.	Non-flammable	—	Mist	2g/L
	Medium	Neutral/Lavender	Spray	1–20 min.	Non-flammable	—	Mist	0g/L
	High	Neutral/Purple	Spray	1–10 min.	Non-flammable	300°F	Mist	0g/L
	High	Blue/Light Orange/ Neutral	Co-Spray	2 min.–2 hr.	Non-flammable	300°F	Mist	37g/L
	Medium	Blue/Clear	Brush/Roll/ Spray/Trowel	15 min.–8 hr.	Non-flammable	—	Mist	14g/L
	n/a	Clear	Spray	n/a	Non-flammable	—	Mist	0g/L

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3M™ Adhesive Sealants

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Flexible Bonding and Sealing Solutions for Avoiding the Elements

Keeping the elements — air, wind, water, dirt, sunlight, fuel, cold, heat — in or out is a design challenge for applications such as specialty vehicle windows, trailer seams, HVAC ductwork, wood doors, boat deck fittings and many more. With 3M™ Adhesive Sealants, you have a wide selection of solutions based on more than 50 years of development and innovation.



174



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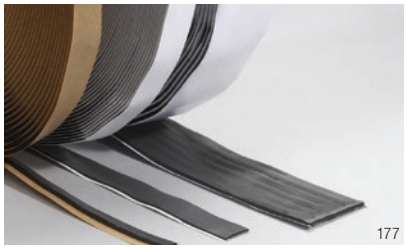
3M™ Polyurethane Sealant 560 moisture cures to a flexible seal/bond between exterior skins and metal framework and between wood flooring and metal framework. Tensile strength up to 580 psi is enough to replace mechanical fasteners in many situations.



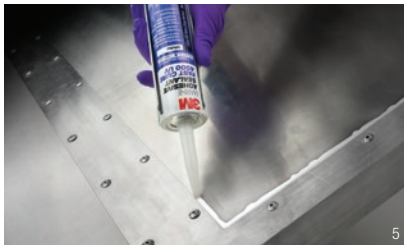
177

3M™ Weatherban™ Sealant Tapes are butyl sealants available in a variety of widths and thicknesses. These are used for applications demanding high tack, aggressive adhesion, weather resistance and flexibility.



178

3M™ Marine Adhesive Sealant 5200 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™ Marine Adhesive Sealant 4000UV has superior UV resistance that is ideal for continuous exposure to sunlight. Applications include specialty vehicle roof seams and marine hardware assembly requiring superior aesthetics.



46

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



179

For gaps and seams inside of a specialty vehicle, 3M™ Polyurethane Sealant 540 stays flexible and secure at temperature extremes. This benefit allows for thermal expansion/contraction between dissimilar substrates.



180

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

Product	Description	Tensile Strength (psi)	Elongation (%)	Skin Time (min)	Hardness (Shore A)	Color (Dry)	Application Method	Typical Handling Strength	Cure Time (mm/24 hr.)	Service Temp. Range °F (°C)
3M™ Polyurethane Adhesive Sealants										
525	Excellent for concrete sealing. Very pliable/flexible.	400	>600	90–150	25	Gray	Bead	n/a	3	-22 to 176 (-30 to 80)
540	Polyurethane. Moisture cures rapidly to flexible seal for many plastics, metal, wood and more.	300	>600	60–90	40	White, Black, Gray	Bead	24 hr.*	3	-40 to 194 (-40 to 90)
550FC	Paintable multi-purpose adhesive sealant. Adheres to a variety of substrates.	450	>600	50–90	45	White, Black, Gray	Bead	24 hr.*	4	-40 to 194 (-40 to 90)
550FC + AC61	Accelerated 2-part technology. Cures quickly. Fast handling strength.	300	>250	8–15	45	White, Black, Gray	Bead	1 hr.*	<24hr. full cure	-40 to 194 (-40 to 90)
550FC + AC63	Properties similar to 550FC + AC61.	300	>250	15–25	45	White, Black, Gray	Bead	2 hr.*	<24hr. full cure	-40 to 194 (-40 to 90)
551	Properties similar to 550FC with longer open time.	450	>600	120–180	45	White	Bead	24 hr.*	4	-40 to 194 (-40 to 90)
560	Similar to 540 but with 580 psi tensile. strength for sealing and bonding. May replace mechanical fasteners.	580	>300	50–60	55	White, Black, Gray	Bead	24 hr.*	4	-40 to 194 (-40 to 90)
590	Structural glass bonding. Crash tested (FMVSS 212). 3-hour drive-away time.	1450	>700	25–40	65	Black	Bead	3-hr. drive-away time (FMVSS 212)	3.5	-40 to 194 (-40 to 90)
5010	Moisture-curing polyurethane. Excellent wood bonder.	275	n/a	3–5	n/a	Cream	Bead	24 hr.*	24 hr. full cure	-22 to 212 (-30 to 100)
3M™ Silane Modified Polymer (SMP) Adhesive Sealants										
730	Excellent UV resistance. Clear formulation.	250	>300	25–30	30	Clear	Bead	n/a	3.5	-40 to 194 (-40 to 90)
740UV	Excellent cosmetic sealant. Excellent UV resistance. Low VOC.	145	>300	40–60	30	White, Black, Gray	Bead	24 hr.*	3.5	-40 to 194 (-40 to 90)
760UV	Excellent adhesion. Paintable when wet. Low VOC .	260	>100	10–30	55	White, Black, Gray	Bead	24 hr.*	3.5	-40 to 212 (-40 to 100)
3M™ Water-Based Sprayable Protective Sealant										
320	Easy application with spray equipment. Fast drying. UV, corrosion resistant.	420	250	60	n/a	White, Black, Gray, Dark Gray	Spray	n/a	n/a	-15 to 194 (-25 to 90)
3M™ Weatherban™ Sealants										
5354	High tack butyl adheres aggressively. Easy to compress tape, resists cold flow.	n/a	n/a	n/a	60	Black	Tape	n/a	n/a	n/a
PF5422	Thread reinforced butyl tape. Repositionable with virtually no cleanup. Weather resistant.	33	200	30	30	Black	Tape	n/a	n/a	n/a
PF5423	Non-reinforced thinner product similar to PF5422.	33	200	30	30	Black	Tape	n/a	n/a	n/a
3M™ Marine Adhesive Sealants										
5200	One part polyurethane. Excellent adhesion to wood, gelcoat, fiberglass. Bonds/seals above/below waterline. Long working time. Provides permanent bond.	700	>800	>48 hr.	68	White, Black, Tan, Mahogany	Bead	> 48 hr.*	<1	-40 to 190 (-40 to 88)
5200FC	One part polyurethane. High strength, non-shrinking, non-sagging bonds. Bonds/seals above/below waterline. Up to one hour open time. Provides permanent bond.	600	>900	60–120	60	White	Bead	48 hr.*	3	-40 to 190 (-40 to 88)
4200FC	One part polyurethane. Bonds/seals above/below waterline. Tack free in 1 hour.	300	>600	50–90	40	White, Black	Bead	24 hr.*	3	-40 to 194 (-40 to 90)
4000UV	Silane Modified Polymer (SMP) Adhesive Sealant. Bonds/seals above/below waterline. Superior UV resistance. Tack free in 22 minutes.	500	>700	15–30	40	White, Black	Bead	24 hr.*	3.5	-40 to 194 (-40 to 90)
3000UV	Silane Modified Polymer (SMP) Adhesive Sealant. Bonds/seals above/below waterline. Superior UV resistance. Tack free in 22 minutes.	145	>300	40–60	30	White, Black, Gray	Bead	24 hr.*	3.5	-40 to 194 (-40 to 90)
Marine Silicone	One part, 100% silicone. Excellent UV resistance. Both non-yellowing and mildew resistant.	220	>350	5–10	20	White, Clear	Bead	n/a	3	-40 to 190 (-40 to 88)

*Varies by application.

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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.

3M™ VHB™ Tapes

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



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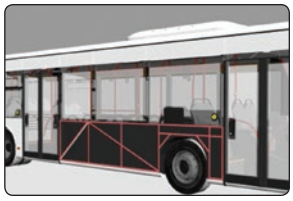


195

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.



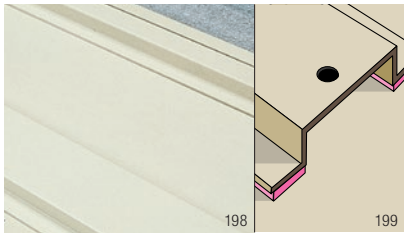
196

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.



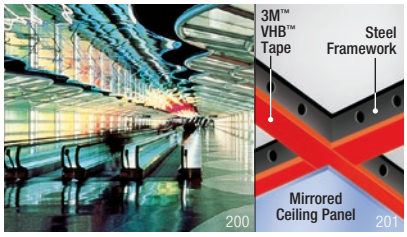
197

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



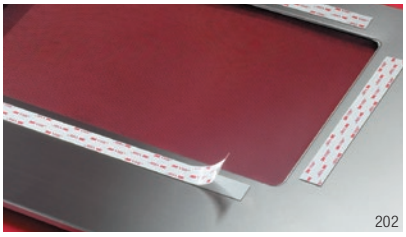
198 199

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



200 201

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.



202

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



203

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

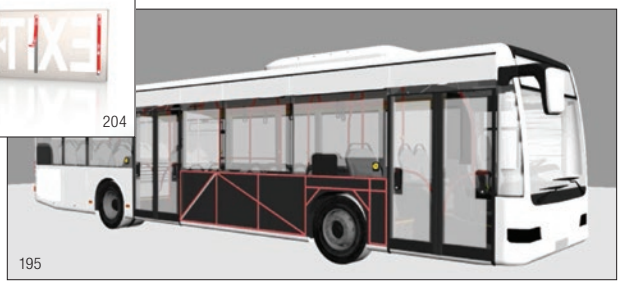
3M™ VHB™ Tapes — Typical Applications

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:

Panel to Frame Applications

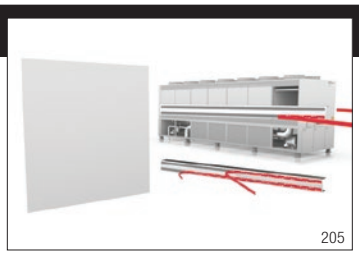
- Reduce weight and solve dynamic force challenges
- Create a clean appearance


204


195

Stiffener to Panel Applications

- Exceptional vibration and corrosion resistance
- Deliver unique designs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206

Lens Window to Housing Applications

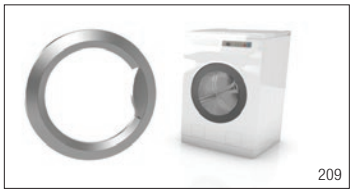
- Securely seal dissimilar materials
- Enhance productivity
- Create innovative designs


207


208

Decorative Material Attachment Applications

- Unlimited opportunities to enhance products
- Flexibility of production and design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3M™ VHB™ Tapes

Product Number	Tape Thickness w/o Liner mils (mm)	Liner Type	Description	Adhesive Type	Temp. Resistance		Solvent Resistance	Relative Adhesion		Application Ideas
					Minutes Hours	Days Weeks		HSE	LSE	
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)				
4991B	90 (2.3)	F	Black version of 4991.							
4919F	25 (0.64)	F	Black version of 4936F.		300°F (149°C)	200°F (93°C)				
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 polcarbonate 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 or white, closed-cell acrylic foam carrier. Good adhesion to many painted surfaces, including powder coated paint. UL 746C.							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								
5915WF	16 (0.4)	F								
5925	25 (0.6)	F								
5925P	25 (0.6)	E								
5925WF	25 (0.6)	F								
5930	32 (0.8)	F								
5930P	32 (0.8)	E								
5930WF	32 (0.8)	F								
5952	45 (1.1)	F								
5952P	45 (1.1)	E								
5952WF	45 (1.1)	F								
5962	62 (1.6)	F								
5962P	62 (1.6)	E								
5962WF	62 (1.6)	F								
5958FR	40 (1)	F	Meets FAR 25.853 (a) 12 sec vertical burn Appendix F, Part 1 (a) (ii)		300°F (149°C)	200°F (93°C)				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										
RP16	16 (0.4)	A	Gray, closed-cell acrylic foam carrier. Conformable. Good adhesion to many painted metals.	Multi-purpose Acrylic	250°F (121°C)	200°F (93°C)	High	High	Med	Panel bonding, stiffener attachment and trim attachment.
RP16F	16 (0.4)	F								
RP25	25 (0.6)	A								
RP25F	25 (0.6)	F								
RP32	32 (0.8)	A								
RP32F	32 (0.8)	F								
RP45	45 (1.1)	A								
RP45F	45 (1.1)	F								
RP62	62 (1.6)	A								
RP62F	62 (1.6)	F								

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3M™ VHB™ Tapes

Product Number	Tape Thickness w/o Liner mils (mm)	Liner Type	Description	Adhesive Type	Temp. Resistance		Solvent Resistance	Relative Adhesion		Application Ideas
					Minutes Hours	Days Weeks		HSE	LSE	
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			400°F (204°C)	300°F (149°C)				
4959	120 (3)	C								
4959F	120 (3)	D								
4945 Tape Family										
4945	45 (1.1)	A	White, closed-cell acrylic foam carrier. Plasticizer resistant.	Multi-purpose Acrylic	300°F (149°C)	200°F (93°C)	High	High	Low	Attach vinyl trim. Bond vinyl extrusions.
4946	45 (1.1)	F								
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								
4951 Tape Family										
4951	45 (1.1)	C	White, closed-cell acrylic foam carrier. Apply as low as 32°F (0°C).	Low Temp Appliable Acrylic	300°F (149°C)	200°F (93°C)	High	High	Low	Low temperature installed products.
4943F	45 (1.1)	C								
4957F	62 (1.6)	C								
4952 Tape Family										
4932	25 (0.6)	A	White, closed-cell acrylic foam carrier. Good adhesion to polypropylene and many powder paints.	Low Surface Energy	200°F (93°C)	160°F (71°C)	High	High	High	Bond powder painted metal stiffeners to office desks and file cabinets. Bond polypropylene and polystyrene.
4952	45 (1.1)	A								
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								
4622 Tape Family										
4618	25 (0.6)	H	White, closed-cell acrylic foam carrier.	General Purpose/ Multi-purpose Acrylic	250°F (121°C)	200°F (93°C)	High	High	Low	General purpose bonding.
4622	45 (1.1)	H								
4624	62 (1.6)	H								

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
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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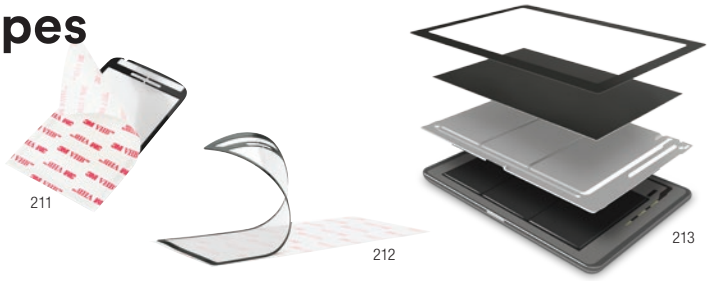
3M™ VHB™ Thin Foam Tapes

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.



Product Number	Tape Thickness w/o Liner mils (mm)	Liner Type	Description	Adhesive Type	Temp. Resistance		Solvent Resistance	Relative Adhesion		Application Ideas
					Minutes Hours	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)									
5908	10 (0.25)									
5909	12 (0.3)									
86400 Tape Family										
86415	6 (0.15)	G	Black, closed-cell acrylic foam carrier. Good adhesion to many surfaces. Excellent shock/drop characteristics.	Acrylic	250°F (121°C)	180°F (82°C)	Med	High	High	LCD, lens and touch panel bonding, logo attachment, P.O.P. and display construction.
86420	8 (0.2)									
86425	10 (0.25)									
86430	12 (0.3)									
4914 Tape Family										
4914-15	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.
4914-20	8 (0.2)	A								
4914	10 (0.25)	A	White, closed-cell acrylic foam carrier. All-purpose adhesive. UL 746C.							

3M™ VHB™ Tape for Commercial Vehicles and Trailers

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

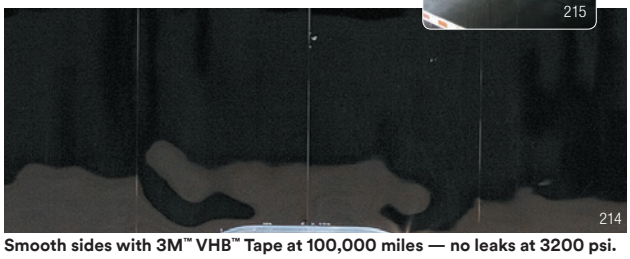
For durability and smooth sides on trailers, trucks, buses, and other commercial vehicles, 3M™ VHB™ Tapes are proven to go the distance.

- 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.



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



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

Product Number	Tape Thickness w/o Liner mils (mm)	Liner Type	Description	Adhesive Type	Temp. Resistance		Solvent Resistance	Application Ideas
					Minutes Hours	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.

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 Number	Tape Thickness w/o Liner mils (mm)	Liner Type	Description	Adhesive Type	Temp. Resistance		Relative Adhesion		Solvent Resistance
					Minutes Hours	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.

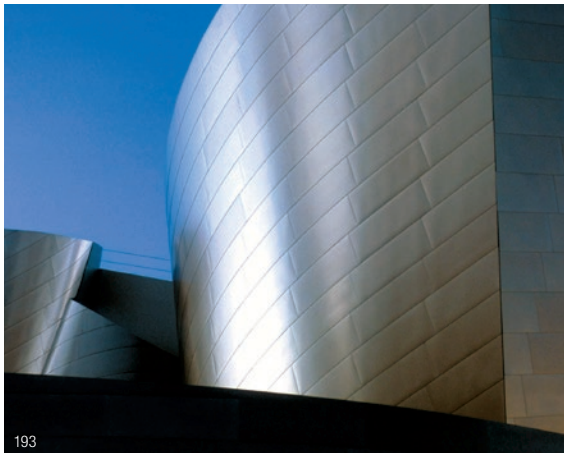
3M™ VHB™ Architectural Panel Tapes

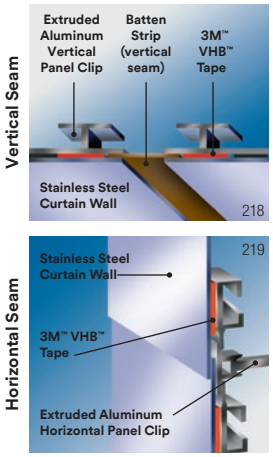
Proven for More Than 30 Years in Applications from Denver to Singapore

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 Number	Tape Thickness w/o Liner mils (mm)	Liner Type	Description	Adhesive Type	Temp. Resistance		Solvent Resistance	Relative Adhesion	
					Minutes Hours	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.						

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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 69.


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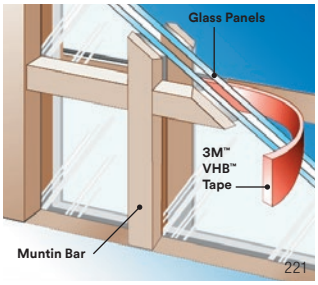

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Product Number	Tape Thickness w/o Liner mils (mm)	Liner Type	Description	Adhesive Type	Temp. Resistance		Solvent Resistance	Relative Adhesion	
					Minutes Hours	Days Weeks		HSE	LSE
G45P	45 (1.1)	A	Gray, closed-cell acrylic foam carrier. Conformable.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

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


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


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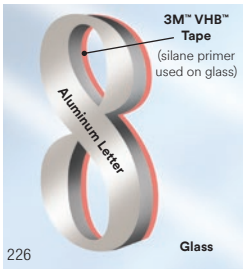

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Clear 3M™ VHB™ Tape permanently bonds aluminum letters to glass and appears almost invisible from behind the pane.

Product Number	Tape Thickness w/o Liner mils (mm)	Liner Type	Description	Adhesive Type	Temp. Resistance		Solvent Resistance	Relative Adhesion		Application Ideas
					Minutes Hours	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.
5952WF	45 (1.1)	F								
5962	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								

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

292

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.



227

Product Number	Tape Thickness w/o Liner mils (mm)	Liner Type	Description	Adhesive Type	Temp. Resistance		Solvent Resistance	Relative Adhesion		Application Ideas
					Minutes Hours	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)				
RP45	45 (1.1)	A	Gray, closed-cell acrylic foam carrier.	Multi-purpose Acrylic	250°F (121°C)	200°F (93°C)				

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 Number	Tape Thickness w/o Liner mils (mm)	Liner Type	Description	Adhesive Type	Temp. Resistance		Solvent Resistance	Relative Adhesion		Application Ideas
					Minutes Hours	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								
RP16	16 (0.4)	A	Gray, closed-cell acrylic foam carrier.	Multi-purpose Acrylic	250°F (121°C)	200°F (93°C)	High	High	Med	
RP45	45 (1.1)	A								

3M™ Primers

Product Number	Solvent	Active Ingredients	VOCs	Color	Flashpoint	Coverage	Application Ideas
AP111	Isopropyl Alcohol (IPA)	Less than 5% by weight	5.91 lbs/gallon (708g/L)	Clear	52°F (11°C)	19m²/L (800 ft²/gal) based on .002" 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 lbs./gallon (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 lbs./gallon (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.

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™ Extreme Sealing Tapes

292

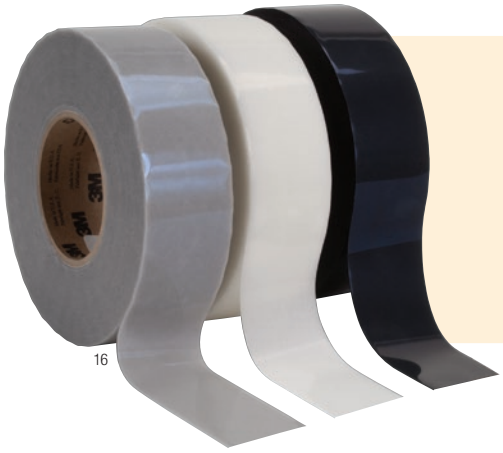
From Trailer, Bus and Rail Car Roof Seams to Metal Enclosures, a Sure Winner Over Traditional Sealants

- 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.



44



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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)
					Alumi-num	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)		15 (26)	15 (26)	15 (26)	14 (25)	16 (28)	16 (28)		36 (32.9)
4411B	Black		40 (1)		19 (33)	17 (30)	19 (33)	17 (30)	19 (33)	18 (32)		36 (32.9)
4412N	Neutral/Translucent		80 (2)		18 (32)	18 (32)	19 (33)	19 (33)	19 (33)	19 (33)		18 (16.5)

†Adhesion promoters were used on peel Adhesion test substrates.

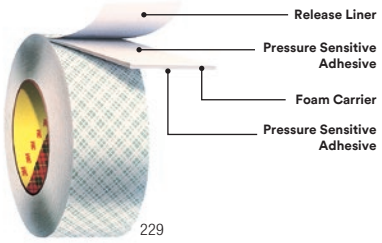
Note: The technical information and data on these pages should be considered representative or typical only and should not be used for specification purposes.

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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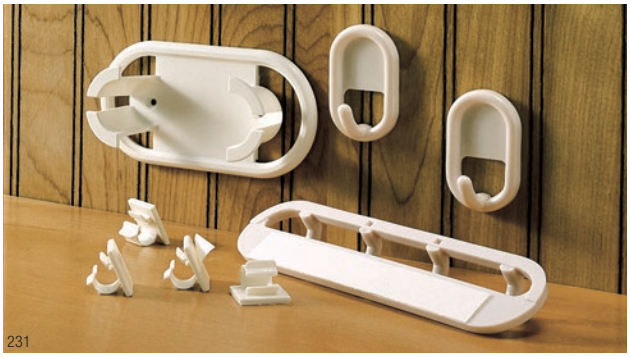
230

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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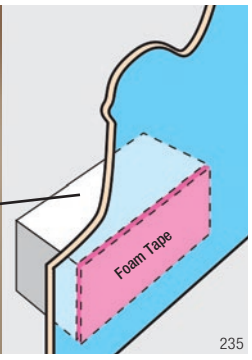

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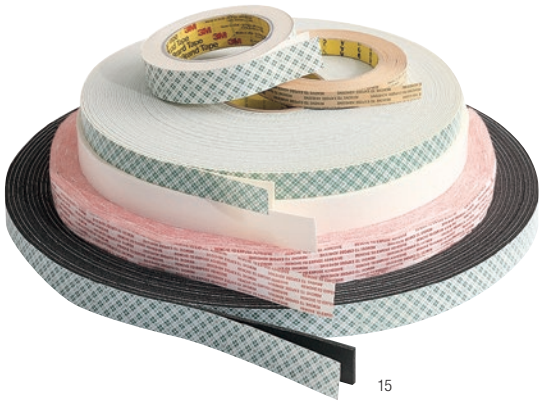
3M™ Double Coated Polyethylene Foam Tapes with high tack adhesive bond foam spacers between the planes of a 3-dimensional P.O.P. display.

3M™ Double Coated Foam Tapes

Product Number	Tape Thickness mils (mm)	Liner Type	Description	Adhesive Type	Temp. Resistance Minutes Hours	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)									
4016	62 (1.6)									
4026	62 (1.6)									
4032	31 (0.8)									
4052	31 (0.8)		Black version of 4032.	100	380°F (193°C)	220°F (104°C)				
4056	62 (1.6)		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)				
Polyethylene										
4451	32 (0.8)	C	Black, closed-cell, high density polyethylene foam carrier. High tack synthetic rubber.	A135	150°F (66°C)	120°F (49°C)	Med	High	Low	Removable applications where good static is needed. Exhibits and trade shows. Nameplates.
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)				Attach hooks, wire clips and racks. Mount retail shelf price channels. Mount pen holders.
4466	62 (1.6)									
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)				Mount nameplates on awards and novelties. P.O.P. displays and signs.
4496	62 (1.6)									
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" x 36" sheets	—	10	9	1	2	9	-40	400
								9	9	10	1	8	-40	300
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" 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" x 180 yd	—							
93015LE		5.9	PET	58# PCK	4.2	54" x 180 yd	—							
93020LE		7.9	PET	58# PCK	4.2	54" x 180 yd	—							

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



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" x 108 yd	—	7	9	9	9	6	-40	250
444PC	Foam lamination. Gasket attachment.	3.9	PET	58# PCK	4.2	48" x 108 yd	—							
300MP (High Tack Acrylic)														
99786	Thin nonwoven carrier for dimensional stability and improved handling. Temperature resistance up to 300°F.	5.5	Non-woven	58# PCK Printed	4.2	48" x 180 yd	—	7	7	8	9	7	-40	250
99786NP	Same as 9786 except an unprinted liner.	5.5	Non-woven	58# PCK Unprinted	4.2	54" x 180 yd	—							
9832	General purpose tape with improved temperature resistance.	4.8	PET	58# PCK	4.2	54" x 250 yd	—							
9832HL	Same as 9832 except with a heavier liner.	4.8	PET	58# PCK	6.2	54" x 250 yd	—							
340 (High Tack Acrylic)														
9456	High tack acrylic adhesive with good adhesion to many plastics.	5.0	Tissue	55# DK	3.2	54" x 180 yd	—	6	6	5	4	8	-40	180
9824	Foam lamination. Gasket attachment.	3.1	PET	55# DK	3.2	54" x 250 yd	—							
9828		4.0	PET	55# DK	3.2	54" x 250 yd	—							
9828PC	High tack acrylic adhesive with good adhesion to many foams.	4.0	PET	74# PCK	5.6	54" x 250 yd	—							
350 (High Performance Acrylic)														
9500PC	High performance with good chemical resistance.	5.6	PET	61.5 PCK	4.5	48" 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" x 108 yd	—							
375 (High Performance Double Coated)														
9086	Easy tearing, easy handling.	7.5	Tissue	Glassine Black Logo	3.0	54" 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" x 750 yd	—							185
9088	High temperature resistance with paper liner.	8.3	PET	Glassine Red Logo	3.0	54" x 750 yd	—							300
9088FL	High temperature resistance with film liner.	8.3	PET	Red PP, No Print	3.1	54" x 750 yd	—							300
400 (Acrylic Adhesive)														
415	Splice papers, films and foils.	4.0	PET	60# DK	4.0	48" x 108 yd	—	5	5	5	5	5	-60	250
9576		4.0	Clear PP	60# DK	4.0	27" x 360 yd	—							

Values: 1 = Lowest Performance; 10 = Highest Performance

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

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3M™ Double Coated Tapes

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)
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" 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" 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" x 120 yd	—	8	9	9	2	2	-40	200
9579	Core starting on metal cores.	9	HDPE	62# DK	3.7	27" x 144 yd	—							
9589	Carpet attachment.	9	HDPE	60# DK	3.7	26" x 144 yd	—							
830/850/860 (Natural Rubber)														
401M	Used for mounting rubber or photopolymer printing plates.	9.0	Paper	54# DK	3.0	22" 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" 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" 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" x 180 yd	—							
9740	Clear, high peel, tack and shear strength. Performance grade splicing tape for corrugators.	3.5	PET	55# DK	3.5	54" 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" 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" x 200 yd	—	8	8	7	7	3	-40	150
9816M				74# Kraft	3.5	54" x 200 yd	—							
9816H				14 pt. Board	3.5	54" x 200 yd	—							
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" x 200 yd	—	8	7	6	7	3	-40	175
9817M				74# Kraft	3.5	54" x 200 yd	—	8	8	7	6	3		
9817H				14 pt. Board	3.5	54" x 200 yd	—							
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" x 25 yd	—	4, 10	—	—	—	8	40	250

Values: 1 = Lowest Performance; 10 = Highest Performance

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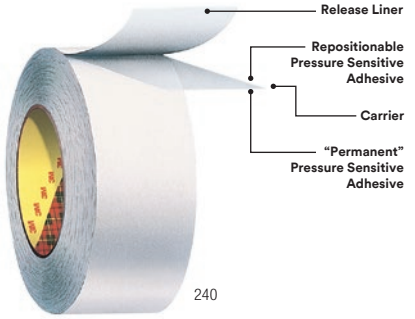
3M™ Removable/Repositionable Tapes

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.

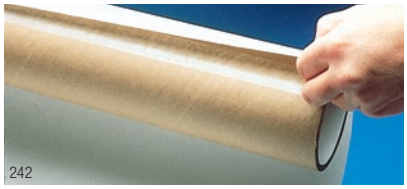
Other tapes in the line offer different levels of adhesion on each side. And others feature equal adhesive strength on each side for reliable attachment but with easy separation for repositioning or multiple openings and closings. You can join substrates that include glass, metals, wood, paper, painted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





3M™ Removable/Repositionable Tape seals hosiery bags for shipment and display but also lets the customer open and re-close the bag as necessary.



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 Type	Liner Caliper (mils)	Master Size	Specs	Adhesion Metal	Adhesion HSE Plastic	Adhesion LSE Plastic	Adhesion Foam	Chem. Resist.	Temp. Range Low (°F)	Temp. Range High (°F)
400/1000* (Differential Adhesive)														
9415PC	Differential adhesive; polyester film carrier.	2	PET	78# PCK	6.0	48" x 216 yd	—	5	5	5	4	5	-20	150
9416	Differential adhesive; tissue carrier.	1	Tissue	70# PCK	5.6	48" x 216 yd	—	3	1	1	—	2		
928 ATG	Reverse wound ATG version of 9416 on 1" core. Used with ATG700 Applicator.	1	Tissue	70# PCK	5.6	Width to 3/4" L to 36yds	—	3	1	1	—	2		
420/1050* (Differential Adhesive)														
9425	High tack/medium tack for repositionable parts.	5.5	UPVC	58# PCK	4.2	48" 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" 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" x 108 yd	—	5	5	5	4	5	-60	125
666	Differential adhesive; lined.		UPVC	LDPE	4.0		—							
Differential Acrylic														
97027	High tack/low tack acrylic adhesive with polyester carrier (formerly Venture 4447).	2.9	PET	74# PCK	3.5	54" x 250 yd	—	8	7	6	5	3	-40	250
								1	1	1	1			
97042	High tack/medium tack acrylic adhesive with polyester film carrier (formerly Venture 523).	3.8		55# DK	3	54" x 250 yd	—	7	6	4	3	6	-40	275
								3	2	1	1			
1000 (Repositionable Acrylic)														
9449S	Laminates to various substrates to make them repositionable.	0.4	None	55# DK	3.2	48" x 360 yd	—	3	1	1	—	2	-20	250
100 (High Temp. Acrylic)														
9658F	Clear, closed foam acrylic foam tape.	31	None	PET	2.0	47" x 175 yd	—	9	8	1	—	9	-40	450
800 (Natural Rubber)														
401M	Temporary positioning or fixturing of parts during machining operations and plate mounting.	9	Paper	54# DK	3	22" x 108 yd	—	8	8	8	5	1	-40	180
410M		6				23.5" x 108 yd							-40	200

*Second number reflects removable adhesive side.

Values: 1 = Lowest Performance; 10 = Highest Performance

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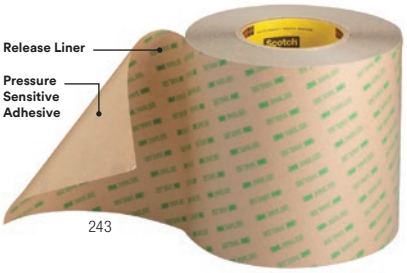
3M™ Adhesive Transfer Tapes

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.

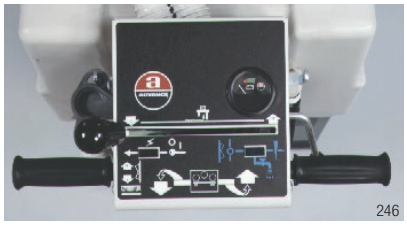




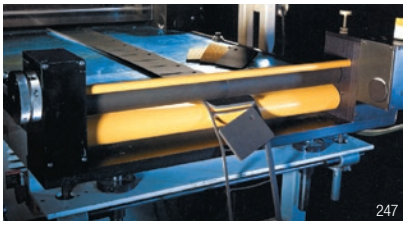
With high cohesive strength, 3M™ Adhesive 200MP bonds aggressively with excellent temperature resistance. Meets the non-fogging specifications of the automotive industry.



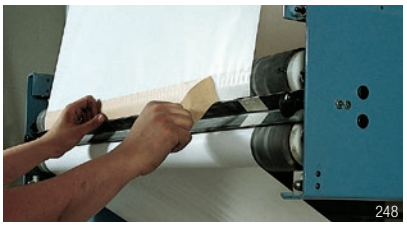
For bonding flexible vinyl in such applications as door gaskets, 3M™ Adhesive Transfer Tape F9465PC resists the effect of plasticizers that tend to migrate from the vinyl.



3M™ Laminating Adhesive 300LSE is the solution for low energy surfaces such as polyolefins and powder coat paint. Graphics hold securely and stand up to tough environmental conditions.



3M™ Adhesive Transfer Tapes provide conformability in a variety of foam laminating applications. The acrylic adhesive also provides high shear strength and good environmental aging properties.



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" 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" x 180 yd	UL							
F9473PC	High performance industrial joining and metal fabrication.	10	58# PCK	4.2	60" x 180 yd	UL							
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" 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" x 180 yd	—							
467MP	Graphic attachment and general industrial joining. Industry standard. 60 in. width master also available.	2	58# PCK	4.2	48" x 180 yd	UL M^H							
467MPF	Polyester liner for rotary processing of graphic and die cut parts.	2	PET	2.0	54" x 180 yd	UL							
468MC	Same as 468MP with a paper MicroChannel liner to aid in bubble and wrinkle free graphic attachment.	5	58# PCK	4.0	54" x 180 yd	—							
468MCF	Same as 468MP with a polyester MicroChannel liner to aid in bubble and wrinkle free graphic attachment.	5	PET	4.0	54" x 180 yd	—							
468MP	Industry standard for graphic attachment and die cut parts. 60 in. width master also available.	5	58# PCK	4.2	48" x 180 yd	UL M^H							
468MPF	Thicker version of 467MPF.	5	PET	2.0	54" x 180 yd	UL							
9667MP	Same as 467MP on heavy, lay-flat liner for kiss-cutting. 48 in. width master also available.	2	83# PCK	6.2	54" x 180 yd	UL							
9668MP	Same as 468MP on heavy, lay-flat liner. 48 in. width master also available.	5	83# PCK	6.2	54" x 180 yd	UL M^H							
9668MPL	Better lay-flat properties.	5	94# PCK	7.0	60" x 180 yd	—							
220 (Industrial Acrylic)													
9502	Economical attachment of graphics and industrial joining. 60 in. width master also available.	2	58# PCK	4.2	48" 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" x 180 yd	UL							
9552	Double-linered laminating adhesive version of 9502.	2.3	58/58# PCK	4.2	48" x 360 yd	UL							
9555	Double-linered laminating adhesive version of 9505.	4.9	58/58# PCK	4.2	48" x 360 yd	UL							

*Products in this platform are 3M™ VHB™ Tapes offering our highest strength.
M^H 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" x 180 yd	—	9	7	1	2	9	-40	450
502FL	Ultra-clean adhesive for low outgassing applications.	2	PET	2.0	54" x 180 yd	—							
300 (High Strength Acrylic)													
927	Attach gaskets and a variety of industrial foam materials.	2	60# DK	3.5	48" x 180 yd	—	7	9	9	9	6	-40	250
950	Thicker version of 927.	5	60# DK	3.5	48" x 180 yd	UL							
950EK	Thicker version of 927 with extensible Kraft liner.	5	78# EK	6.0	48" x 180 yd	—							
992U	For performance-engineered labels. UV indicator in adhesive.	2	55# DK	3.2	48" x 180 yd	UL							
9458	Thin, high tack adhesive for rotary processing HSE and LSE parts.	1	55# DK	3.2	54" x 360 yd	UL							
9459W	White version of laminating adhesive 9459S.	1.5	55# DK	3.2	48" x 360 yd	UL							
9471	For smooth LSE plastics.	2	60# DK	3.5	48" x 180 yd	UL M^H							
9471PC	Same as 9471 on moisture-stable liner.	2	61# DK	4.2	48" x 180 yd	—							
9472	5.0 mil version of 9471; for textured surfaces.	5	60# DK	3.5	48" x 180 yd	UL M^H							
9653	A 3.5 mil version of 9471 on a heavy, lay-flat liner for kiss-cutting.	3.5	83# PCK	6.2	48" x 180 yd	UL							
9671	Heavier linered version of 9471 for easy handling, lay-flat properties.	2	83# PCK	6.2	48" x 180 yd	UL M^H							
9672	Heavier linered version of 9472 for easy handling, lay-flat properties.	5	83# PCK	6.2	48" x 180 yd	UL							
9673	Same as 9671 with unprinted liner.	2	83# PCK	6.2	48" x 180 yd	UL M^H							
300FR (Flame Retardant)													
9372W	Flame retardant. Moisture stable liner.	2	83# PCK	6.2	60" x 180 yd	UL	8	9	9	9	6	-40	250
9372DKW	Flame retardant. Rotary diecuttable liner.	2	55# DK	3.2	60" x 180 yd	UL							
9375W	Flame retardant. Moisture stable liner.	5	83# PCK	6.2	60" x 180 yd	UL							

*Products in this platform are 3M™ VHB™ Tapes offering our highest strength.
M^H 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 lined version of 9453LE for rotary processing.	3.5	PET	2.0	54" 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" x 180 yd	UL							
9471FL	Film lined version of 9471LE for rotary processing.	2.3	PET	2.0	54" x 180 yd	UL							
9471LE	Bonds graphics to powder coatings, LSE plastics and oily materials.	2.3	58# PCK	4.2	54" x 180 yd	UL							
9472FL	A 5 mil version of 9471LE with film liner for textured surfaces.	5.2	PET	2.0	54" x 180 yd	UL							
9472LE	Thicker adhesive for textured LSE plastics and powder coatings.	5.2	58# PCK	4.2	54" x 180 yd	UL							
9653LE	Heavy lined 9453LE for easy handling and lay-flat properties.	3.5	83# PCK	6.2	54" x 180 yd	UL							
9671LE	Heavy lined 9471LE for easy handling and lay-flat properties.	2.3	83# PCK	6.2	54" x 180 yd	UL							
9672LE	Heavy lined 9472LE for easy handling and lay-flat properties.	5.2	83# PCK	6.2	54" x 180 yd	UL							
300SF (Solvent-Free)*													
XT2112	High tack acrylic adhesive.	5	55# DK	3	48" x 60 yd	—	6	9	9	5	5	-40	200
XT2105	Thinner version of XT2112.	2	55# DK	3	48" x 60 yd	—							
300MP (High Tack Acrylic)													
6035PC	Resists fogging for automotive interior fabric joining applications.	5	58# PCK	4.2	60" x 180 yd	—	7	7	8	8	7	-40	250
6035PL	Heavy lined version of 6035PC for easy handling, lay-flat properties.	5	83# PCK	6.2	60" x 180 yd	—							
6038PC	Low fogging. Automotive fabric and carpet attachment.	8	58# PCK	4.2	60" x 180 yd	—							
6038PL	Low fogging. For rough embossed surfaces with heavy liner for steel rule die-cutting.	8	83# PCK	6.2	60" x 180 yd	—							
9772WL	Provides excellent bond to various fabricated foams, fabrics and substrates.	2	96# PCK	7.0	60" x 180 yd	—							
9773WL		3											
9774WL		4											
9775WL		5											
320 (High Tenacity Acrylic)													
9447	Designed for use with 3M™ Label Component Systems.	1	55# DK	3.2	54" 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" x 180 yd	UL	9	10	10	9	8	-40	450
9445	Thicker version of 9442.	5	55# DK	3.2	48" x 180 yd	UL							
9482PC	High tack and shear strength; excellent adhesion to plastics and foams.	2	58# PCK	4.2	48" x 180 yd	UL							
9485EK	Thicker version of 9482PC with an extensible Kraft liner.	5	78# EK	6.0	48" x 180 yd	—							
9485PC	A 5 mil version of 9482PC.	5	58# PCK	4.2	48" x 180 yd	UL							
9675	Heavy lined version of 9485PC for easy handling, lay-flat properties.	5	83# PCK	6.2	48" x 180 yd	—							

*Manufactured using a solventless adhesive coating process.

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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)
400 (Acrylic Adhesive)													
463	High tack and excellent adhesion to most paper stocks. For automatic dispensing.	2	60# DK	3.5	48" 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" x 180 yd	—							
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" x 360 yd	UL							
9665	Thicker version of 9457.	2	58# PCK	4.2	48" x 180 yd	—							
420 (Acrylic Adhesive)													
F9752PC	High tack; can be applied in temperatures as low as 32°F (0°C).	2	58# PCK	4.2	54" x 360 yd	—	7	7	8	4	6	-40	300
F9755PC	Thicker version of F9752PC for textured surfaces.	5	58# PCK	4.2	54" x 360 yd	—							
430 (Acrylic Adhesive)													
9497	Pink tinted high temperature splicing tape.	2	60# DK	3.5	48" x 360 yd	—	6	6	5	4	5	-40	350
9499	Transparent version of 9497.	2	60# DK	3.5	48" x 360 yd	—							
Specialty Acrylic													
9379	Jet fuel and hydraulic fluid resistant adhesive transfer tape.	2	PET	2	48" x 200 yd	M^H	9	8	1	2	9	-40	350
9380	Thicker version of 9379.	5	PET	2	48" x 200 yd	M^H							
F9465PC	Vinyl plasticizer resistant adhesive.	5	58# PCK	4.2	54" x 360 yd	—	10	10	7	5	5	-40	200
F9467U	Vinyl plasticizer resistant adhesive.	3.5	58# PCK	4.2	54" x 180 yd	—							
Silicone													
91022	Silicone attachment. Silicone linered for easier processing.	2	White PET	2	48" x 180 yd	—	9	8	7	6	10	-40	500

M^H meets Mil-P-19834B Type I.

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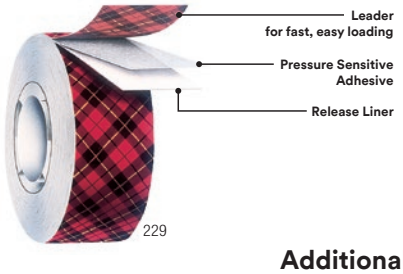
Scotch® ATG Transfer Tapes

Finger Touch Application of Pressure Sensitive Adhesive

Versatility, convenience and speed. That's what you get with Scotch® ATG 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 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 Transfer Tapes and Applicators. You apply a precise strip of adhesive at the same time as the liner rewinds into the applicator.



254

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



252

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)


256

Scotch® ATG Applicator 3662 for 2" wide tape

Additional ATG products are available as part of the X-Series portfolio on page 84.

Product	Tape Thickness w/o Liner mils (mm)	Description	Temperature Resistance		Solvent Resistance	Relative Adhesion		Application Ideas	Adhesive Transfer Tape Equivalent
			Minutes Hours	Days Weeks		HSE	LSE		
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
969	5 (0.13)							Assemble point-of-purchase displays. Bond trim strips to furniture or luggage. Bond labels to plastic toys. Attach gaskets or foams.	950
350 (High Performance Acrylic)									
926	5 (0.13)	High performance. Excellent temperature and solvent resistance.	450°F (232°C)	300°F (149°C)	High	High	High	Bond fabric or trim to window blinds. Splice aluminum coils. Bond foam insulation. Mount nameplates on award plaques.	F9485PC
400 (General Purpose Adhesive)									
970XL	1 (0.025)	General purpose. Excellent adhesion to most paper stocks.	250°F (121°C)	180°F (82°C)	Med	Med	Low	Attach photos to layouts. Attach labels.	920XL
924	2 (0.05)							Seal pocket in folders. Bond mat board in picture frames. Splice paper, films, foils. General purpose bindery attaching.	465
987*	1.7 (0.040)								9498
400/1000 (Repositionable Adhesive)									
928	2 (0.05)	Differential tack. Repositionable.	180°F (82°C)	150°F (65°C)	Med	High/ Low	Low/ Low	Attach credit card in mailer. Core start/end tab paper, films and foils. Attach temporary labels.	9416

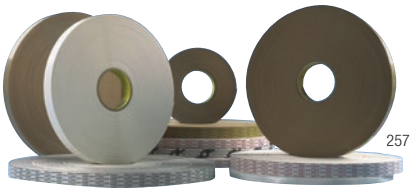
*3M Brand **Relative Adhesion:** HSE – High Surface Energy; LSE – Low Surface Energy

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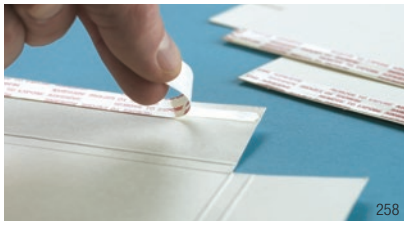
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3M™ Extended Liner Tapes are available with a release liner wider than the adhesive. This provides an easy-to-grab edge for convenient liner removal.


259

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.


260

Automatic and semi-automatic equipment is available for higher volume applications. For example, apply tape to business forms, literature, bounce back and business reply cards.


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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
				Minutes Hours	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 w/o Print							Pharmaceutical outsert attachment. For applications requiring a more tear resistant liner.
450XL	1 (0.025)	60# DK Tan with Green Print							Pharmaceutical outsert attachment. General paper attachment.
920XL	1 (0.025)	40# DK White with Red Print							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.[1] 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.[1]
770									
9925XL[2]	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.[1]

1 – FDA acceptable dry ingredients listed as indirect food-contact additives when used in food packing with minimal opportunity for exposure.
2 – 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.

3M™ Industrial Attachment Tapes — X-Series

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Value, Performance and Quality

Selecting the right high-quality tape is now easier than ever. 3M™ X-Series Tapes set the standard for affordable adhesion with four simple categories: XP Series, XT Series, XG Series and XR Series.



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Product	Description/Application Ideas	Tape Cal. (mils)	Carrier Type	Liner		Master Size	Adhesion				Chem. Resist.	Temp. Range	
				Type	Caliper (mils)		Metal	HSE Plastic	LSE Plastic	Foam		Low (°F)	High (°F)
XG Series (General Purpose Acrylic)													
XG2105	Ideal for assembling, bonding and attaching paper stocks in commercial printing, graphics, specialty packaging and fulfillment applications.	2	n/a	62# DK	2	48" x 60 yd	5	5	5	4	5	-60	250
XG5110	Attach papers and plastic films in print, graphics and specialty packaging applications	4	Clear PP	55# DK	4	27" x 60 yd	5	5	5	5	5	-60	250
XG6110	Used to attach papers and plastic film in print, graphic and specialty packaging applications.	4	Clear PET	55# DK	3.2	48" x 36 yd	5	5	5	5	5	-60	250
XP Series (High Performance Acrylic)													
XP2112	Ideal for hanging posters and signs, trophy and recognition placards, and nameplates and emblems; securely attach smooth surface moldings and trim.	5.0	n/a	55# DK	3.2	48" x 36 yd	9	10	10	9	8	-40	450
XP6114	High shear strength tape for mounting plastic and metal trim.	5.6	PET	58# PCK	4.2	48" x 36 yd	9	10	10	9	8	-40	450
XR Series (Rubber Adhesive)													
XR4123	Aggressive rubber adhesive with tough carrier for clean removal from solid surfaces.	9	HDPE	58# DK	4	27" x 36 yd	8	9	9	2	2	-40	200
XR4115	Aggressive rubber adhesive for superior quick stick adhesion. Clean removal from solid surfaces	6	HDPE	58# DK	4	27" x 60 yd	8	9	9	2	2	-40	200
XR8115	Hand tearable double coated paper tape for temporary holding and clean removal.	6	Paper	54# DK	3	23.5" x 36 yd	8	8	8	5	1	-40	200
XR8123	Hand tearable double coated paper tape with thick carrier for temporary holding and clean removal.	9	Paper	54# DK	3	22" x 36 yd	8	8	8	5	1	-40	180
XT Series (High Tack Acrylic)													
XT2105	Ideal for use on coated papers and other smooth surface materials.	2	n/a	55# DK	3.2	48" x 60 yd	6	9	9	4	5	-40	200
XT2112	Ideal for attaching smooth plastic trim, moldings and emblems. Holds securely to coated papers, film and many other textured surfaces.	5	n/a	55# DK	3.2	48" x 60 yd	6	9	9	4	5	-40	200
XT6110	Attaching porous fabrics, flock, foams and heavy cardstocks.	3.9	PET	55# DK	3.2	48" x 36 yd	7	9	9	9	6	-40	250

Values: 1 = Lowest Performance; 10 = Highest Performance

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

Product	Tape Thickness w/o liner mils (mm)	Description	Temperature Resistance		Solvent Resistance	Relative Adhesion		Application Ideas	Adhesive Transfer Tape Equivalent
			Minutes Hours	Days Weeks		HSE	LSE		
XT Series — ATG Format (High Tack Acrylic)									
XT2105-ATG	2 (0.05)	General purpose. Excellent adhesion to coated papers, paperboard and plastics.	200°F (93°C)	150°F (65°C)	Med	High	High	Attach coated papers and plastics in printing and graphic applications.	XT2105
XT2112-ATG	5 (0.13)							Perfect for plastics assembly and for attaching heavy paperboards and corrugated in P.O.P. and packaging applications.	XT2112

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

Note: The technical information and data provided here should be considered representative or typical only and should not be used for specification purposes. User should evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of application.

Supporting your designs behind the seams.

Powerful Fastening Solutions

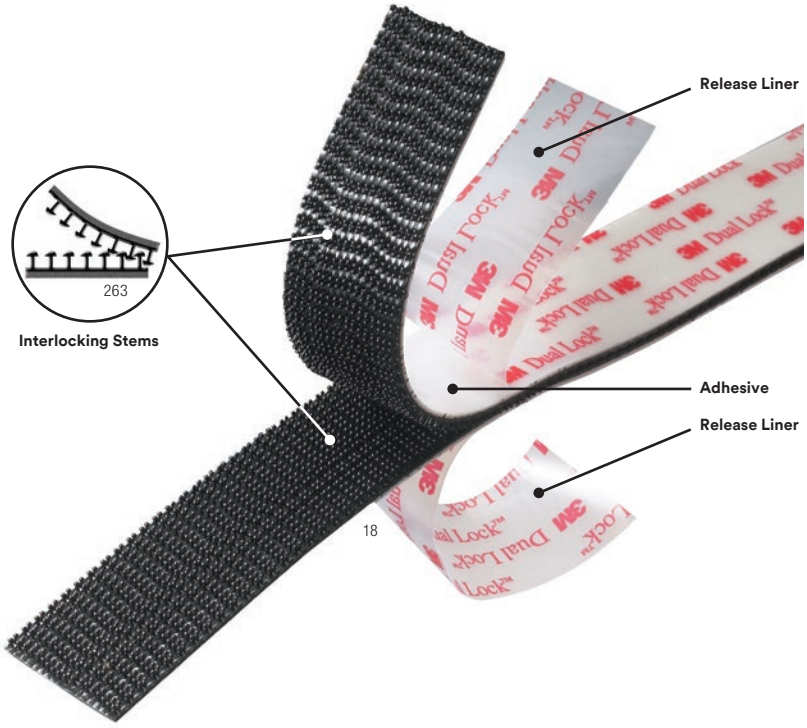
3M™ Reclosable Fasteners provide secure fastening with easy access and enhanced gripping for a wide range of applications. Weather-resistant single coated foam tapes are practical solutions that protect against moisture, dust, vibration and impact, and remain flexible.

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.



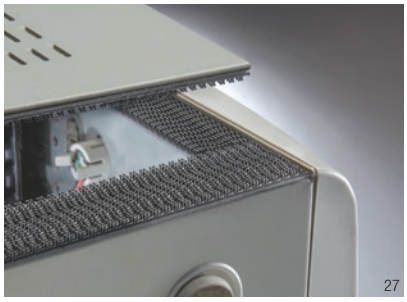
Anchor vehicle accessories to dashboard.



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)	Substrates					Use	Markets						
							Metals (Al & SS)	Glass	Plastics (Acrylic, PC, ABS)	Powder Coated Paints	Low Surface Energy (PP,PE)	Indoor/Outdoor	Aerospace & Rail	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																		
SJ3542	170																		
SJ3550	250	White Acrylic	Black	Clear, 4 mil (0.10mm) Polyolefin	0.23 in (5.7mm)	200 (93)	■	■	■	●	●	Indoor/ Outdoor	■	■	■	■	■	■	■
SJ3551	400																		
SJ3552	170																		
SJ3558	250	White Acrylic	Clear*	Clear, 4 mil (0.10mm) Polyolefin	0.23 in (5.7mm)	200 (93)	■	■	■	●	●	Indoor/ Outdoor		■	■	■	■	■	■
SJ3560	250	Clear Acrylic	Clear	Clear, 4 mil (0.10mm) Polyolefin	0.23 in (5.7mm)	220 (104)	■	■	■	●	●	Indoor/ Outdoor		■	■	■	■	■	■
SJ3561	400																		
SJ3562	170																		
SJ3550CF	250	Clear Acrylic	Black	Clear, 4 mil (0.10mm) Polyolefin	0.23 in (5.7mm)	220 (104)	■	■	■	●	●	Indoor/ Outdoor		■	■	■	■	■	■
SJ3551CF	400																		
SJ3552CF	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																		
SJ3442	170																		
SJ3443	400	Non-woven Backing with No Adhesive	Black	No Liner	0.28 in (7.1mm)	220 (104)	▲	▲	▲	▲	▲	Indoor/ Outdoor		▲	▲	▲	▲	▲	▲
SJ3444	170																		
SJ3445	250																		
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		▲	▲	▲	▲	▲	▲
SJ4570	Low Profile/ Thin	Low Surface Energy Acrylic	Clear	Brown, 83# Polykraft	0.098 in (2.489mm)	158 (70)	■		■	■	■	Indoor/ Outdoor		■	■	■	■		■
SJ4575			Black																
SJ4580		Clear Acrylic	Clear	Red, 4.5 mil (0.11mm) Polyolefin	0.12 in (3.0mm)	200 (93)	■	■	■	●	●	Indoor/ Outdoor		■	■	■	■	■	■

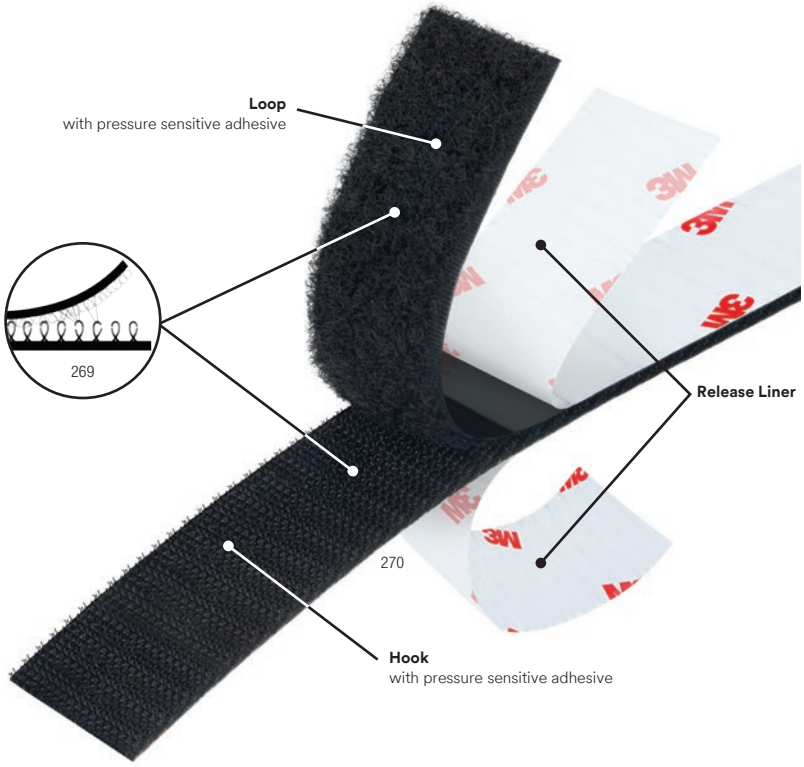
*Clear fastener utilizes a white adhesive giving the product a white appearance **Single thickness; not engaged †No adhesive

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)	Substrates					Use	Markets				
								Metals (Al & SS)	Glass	Plastics (Acrylic, PC, ABS)	Powder Coated Paints	Low Surface Energy (PP, PE)	Indoor/Outdoor	Aerospace & Rail	Furniture & Upholstery	General Industrial	Marine & Specialty Vehicle	POP, Display & Signage
Best																		
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																	
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																	
Better																		
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																	
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																	
General Purpose																		
SJ30H	Hook	Rubber	5,000	Nylon	White, 3 mil (0.08mm) Polyethylene Film No Print	0.14 in. (3.6mm)	100 (38)	■		■		■	Indoor			■		■
SJ30L	Loop																	
SJ60H	Hook	Acrylic	5,000	Nylon	Clear, 4 mil (0.10mm) Polypropylene Film Embossed 3M Logo	0.125 in. (3.2mm)	180 (82)	■		■			Indoor/ Outdoor			■		■
SJ60L	Loop																	
SJ3401	Loop	None	5,000	Nylon	None	0.12 in. (3.0mm)	200 (93)	●	●	●	●	●	Indoor/ Outdoor		●	●		●
SJ3402	Hook																	
Low Profile/Thin																		
SJ3506	Hook	Acrylic	25	Polypropylene	Brown #83 Polykraft Green Print	0.034 in. (0.84mm)	158 (70)	■	■	■	▲	▲	Indoor/ Outdoor			■		■
SJ3507	Loop			Polyester														
SJ3000	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																	
SJ3419FR	Hook	None	5,000	FR Nylon	None	0.12 in. (3.0mm)	200 (93)	●	●	●	●	●	Indoor/ Outdoor	●	●	●		
SJ3418FR	Loop																	

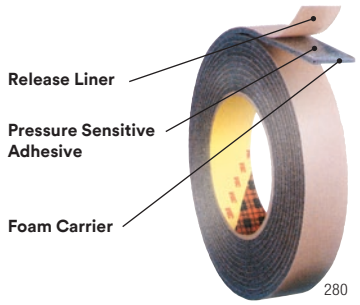
Note: The technical information and data on these pages should be considered representative or typical only and should not be used for specification purposes.

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.





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



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



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



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 Number	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	Natural White			0.125 (3)	16 (256)	130 (895)	6 (82.8)	8		
4116	Natural White			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*	Charcoal Gray			0.375 (9.5)						
4318	Charcoal Gray			0.125 (3)						
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*	Black			0.125 (3)	20 (320)	100 (690)				
4516*	Black			0.062 (1.5)	25 (400)	130 (895)				
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		
4718*	Black			0.125 (3)	20 (320)	100 (690)	4 (27.6)	15		
4726*	Black			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.



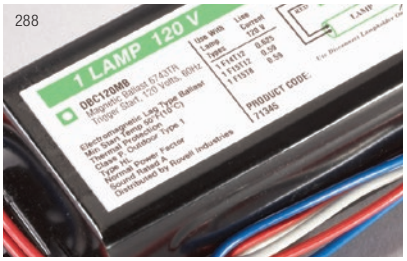
3M converters can slit 3M™ Masking Tapes to specified widths and roll lengths, as well as die-cut to unique shapes for specialized applications.



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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