Need an Adhesive to Bond Composites?

Try the 3M™ Scotch-Weld™ Structural Adhesive Selector

Start Now
Choose Your Substrate Combination
Select button to view recommended 3M™ Scotch-Weld™ Structural Adhesive options.

<table>
<thead>
<tr>
<th>SUBSTRATE 2</th>
<th>SUBSTRATE 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metals</td>
<td>Metals</td>
</tr>
<tr>
<td>- Aluminum</td>
<td>- Aluminum</td>
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<tr>
<td>- Cold Rolled Steel</td>
<td>- Cold Rolled Steel</td>
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<tr>
<td>- Galvanized Steel</td>
<td>- Galvanized Steel</td>
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<tr>
<td>Fiber-Reinforced Epoxy</td>
<td>Fiber-Reinforced Epoxy</td>
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<tr>
<td>- Carbon Fiber (CFRP)</td>
<td>- Carbon Fiber (CFRP)</td>
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<tr>
<td>- Glass Fiber</td>
<td>- Glass Fiber</td>
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<tr>
<td>Fiber-Reinforced Thermosets</td>
<td>Fiber-Reinforced Thermosets</td>
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<tr>
<td>- Polyester (FRP)</td>
<td>- Polyester (FRP)</td>
</tr>
<tr>
<td>- Phenolic</td>
<td>- Phenolic</td>
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<tr>
<td>- SMC</td>
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<tr>
<td>Thermoplastics</td>
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<tr>
<td>- Polysulfide</td>
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<tr>
<td>- PET</td>
<td>- PET</td>
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<tr>
<td>- HDPE</td>
<td>- HDPE</td>
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<tr>
<td>- Polypropylene</td>
<td>- Polypropylene</td>
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<tr>
<td>Engineered Thermoplastics</td>
<td>Engineered Thermoplastics</td>
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<tr>
<td>- Acrylic/PMMA</td>
<td>- Acrylic/PMMA</td>
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<tr>
<td>- Polycarbonate (PC)</td>
<td>- Polycarbonate (PC)</td>
</tr>
<tr>
<td>- Rigid PVC and HIPS</td>
<td>- Rigid PVC and HIPS</td>
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<tr>
<td>Thermoplastics</td>
<td>Thermoplastics</td>
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<td>- Polysulfide</td>
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<td>- PET</td>
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<tr>
<td>- HDPE</td>
<td>- HDPE</td>
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<tr>
<td>- Polypropylene</td>
<td>- Polypropylene</td>
</tr>
<tr>
<td>Fiber-Reinforced Nylon</td>
<td>Fiber-Reinforced Nylon</td>
</tr>
</tbody>
</table>

Select button to view recommended 3M™ Scotch-Weld™ Structural Adhesive options.
Select a Product
The following 3M adhesive products provide superior bonds for your selected substrates.

**3M™ Scotch-Weld™ Epoxy Adhesive DP420NS Black**
- Excellent environmental resistance
- Toughened epoxy for high impact strength
- Excellent fatigue performance
- 20-minute open time

**3M™ Scotch-Weld™ Epoxy Adhesive DP125 Gray**
- Highly flexible epoxy
- Bonds to most substrates, including many plastics
- High strength and high peel
- 25-minute open time

**3M™ Scotch-Weld™ Low Odor Acrylic Adhesive DP810**
- Low odor adhesive
- Provides high shear and peel strength and is toughened for impact resistance
- Bonds oily metals with minimal surface prep
- Bonds most plastics
- 10-minute open time

View Product Details
View Product Details
View Product Details
Select a Product

The following 3M adhesive products provide superior bonds for your selected substrates.

3M™ Scotch-Weld™ Epoxy Adhesive DP420NS Black

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

View Product Details

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

- Bonds multiple materials, including metal and composites
- Designed to bond multiple applications
- A high performance, two-component, urethane adhesive
- Easy dispensing system

View Product Details

3M™ Scotch-Weld™ Low Odor Acrylic Adhesive DP8805NS

- Low odor acrylic adhesive
- Fast rate of strength build-up
- Rapid bonds to oily and painted metals and most plastics
- 5-minute open time

View Product Details
Select a Product

The following 3M adhesive products provide superior bonds for your selected substrates.

3M™ Scotch-Weld™ Multi-Material Composite Urethane Adhesive DP6310NS
- Bonds multiple materials, including metal and composites
- Designed to bond multiple applications
- A high performance, two-component, urethane adhesive
- Easy dispensing system

3M™ Scotch-Weld™ Acrylic Adhesive DP8410NS
- Methyl methacrylate adhesive
- High impact resistance
- Minimal surface preparation
- Non-sag
- 10-minute open time

3M™ Scotch-Weld™ Epoxy Adhesive DP180 Gray
- Tough, strong bonds with high shear and peel strength
- Bonds to a wide variety of different materials
- Extended work life provides additional time for adjustment
- Formulated with low viscosity for easy dispensing
Select a Product

The following 3M adhesive products provide superior bonds for your selected substrates.

3M™ Scotch-Weld™ Structural Plastic Adhesive DP8010 Blue

- Structural bonds LSE plastics to most anything
- High strength
- Acrylic adhesive
- Limited to no surface prep required
- 10-minute open time

View Product Details

3M™ Scotch-Weld™ Structural Plastic Adhesive DP8005

- Structural bonds LSE plastics to most anything
- High strength
- Acrylic adhesive
- Limited to no surface prep required
- 5-minute open time

View Product Details
Select a Product

The following 3M adhesive products provide superior bonds for your selected substrates.

3M™ Scotch-Weld™ Acrylic Adhesive DP8410NS
- Methyl methacrylate adhesive
- High impact resistance
- Minimal surface preparation
- Non-sag
- 10-minute open time

View Product Details

3M™ Scotch-Weld™ Multi-Material Composite Urethane Adhesive DP6310NS
- Bonds multiple materials, including metal and composites
- Designed to bond multiple applications
- A high performance, two-component, urethane adhesive
- Easy dispensing system

View Product Details

3M™ Scotch-Weld™ Epoxy Adhesive DP190 Gray
- Tough, strong bonds with high shear and peel strength
- Bonds to a wide variety of different materials
- Extended work life provides additional time for adjustment
- Formulated with low viscosity for easy dispensing

View Product Details
Select a Product
The following 3M adhesive products provide superior bonds for your selected substrates.

3M™ Scotch-Weld™ Multi-Material Composite Urethane Adhesive DP6310NS
- Bonds multiple materials, including metal and composites
- Designed to bond multiple applications
- A high performance, two-component, urethane adhesive
- Easy dispensing system

3M™ Scotch-Weld™ Low Odor Acrylic Adhesive DP810
- Low odor adhesive
- Provides high shear and peel strength and is toughened for impact resistance
- Bonds oily metals with minimal surface prep
- Bonds most plastics
- 10-minute open time

3M™ Scotch-Weld™ Epoxy Adhesive DP190 Gray
- Tough, strong bonds with high shear and peel strength
- Bonds to a wide variety of different materials
- Extended work life provides additional time for adjustment
- Formulated with low viscosity for easy dispensing

View Product Details
3M™ Scotch-Weld™ Epoxy Adhesive DP420NS Black

3M™ Scotch-Weld™ Epoxy Adhesive DP420NS is a non-sag, two-part epoxy formulated to be durable and tough. This epoxy adhesive absorbs impact, resists vibration and fatigue, and provides high shear and peel strength. 3M™ Scotch-Weld™ Epoxy Adhesive 420NS is capable of providing durable and dependable adhesion for some of the most demanding applications.

- Non-sag, two-part epoxy features controlled flow and application
- Capable of absorbing impact and resisting vibration and fatigue, providing long-term durability
- Withstands powder coating processes
- High shear and peel strength for durable and dependable adhesion
- 20-minute work life allows time for adjustment during application

For more information, visit 3M.com/compositebonding

*Aluminum was acid etched before bonding.
*Composite materials were prepped with an IPA wipe/abrade/IPA wipe surface preparation method.

**KEY:** SF - Substrate Failure  CF - Cohesive Failure  AF - Adhesive Failure

<table>
<thead>
<tr>
<th>Mix Ratio (Volume) B:A</th>
<th>Approximate Viscosity (cP) 75°F (24°C)</th>
<th>Approximate Mixed Work Life 75°F (24°C)</th>
<th>Approximate Time to Handling Strength 75°F (24°C)</th>
<th>Floating Roller Peel (psi) 75°F (24°C)</th>
<th>Overlap Shear Aluminum (psi) 75°F (24°C)</th>
<th>Overlap Shear Aluminum (psi) 180°F (82°C)</th>
<th>Overlap Shear Carbon Fiber-Reinforced Epoxy (psi) 75°F (24°C)</th>
<th>Overlap Shear Glass Fiber-Reinforced Epoxy (psi) 75°F (24°C)</th>
<th>Overlap Shear Sheet Molding Compound (SMC) (psi) 75°F (24°C)</th>
<th>Available Sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>DP420NS Black</td>
<td>2:1</td>
<td>180,000</td>
<td>20 minutes</td>
<td>2 hours</td>
<td>47</td>
<td>4,500</td>
<td>4,500</td>
<td>1,250</td>
<td>4870 SF</td>
<td>2600 SF</td>
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</tbody>
</table>
3M™ Scotch-Weld™ Epoxy Adhesive DP125 Gray

3M™ Scotch-Weld™ Epoxy Adhesive DP125 is a low odor, two-part epoxy that creates strong structural and flexible bonds on metal, ceramics, wood, and many plastics. It provides the reliability and strength needed to maintain productive, cost effective results.

- Flexible for higher peel strength and better vibration resistance
- Maintains a strong bond under expansion, contraction and limited movement
- Medium viscosity helps minimize running, dripping or migration
- Flows smoothly for controlled dispensing
- Effective adhesive system for bonding, joining, gluing, attaching, assembling, encapsulating, potting, and sealing applications

**Mix Ratio**

<table>
<thead>
<tr>
<th>Mix Ratio (Volume)</th>
<th>B:A</th>
<th>Approximate Viscosity (cP)</th>
<th>Approximate Mixed Work Life</th>
<th>Approximate Time to Handling Strength</th>
<th>Floating Roller Peel (psi)</th>
<th>Overlap Shear Aluminum (psi)</th>
<th>Overlap Shear Glass Fiber-Reinforced Epoxy (psi)</th>
<th>Overlap Shear Carbon Fiber-Reinforced Epoxy (psi)</th>
<th>Overlap Shear Sheet Molding Compound (psi)</th>
<th>Available Sizes</th>
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<tr>
<td>DP125 Gray</td>
<td>1:1</td>
<td>52,500</td>
<td>25 minutes</td>
<td>2.5 hours</td>
<td>86</td>
<td>3,400</td>
<td>4,300</td>
<td>400</td>
<td>1850</td>
<td>880 CF</td>
</tr>
</tbody>
</table>

*Aluminum was acid etched before bonding.
*Composite materials were prepped with an IPA wipe/abrade/IPA wipe surface preparation method.

For more information, visit [3M.com/compositebonding](http://3M.com/compositebonding)
3M™ Scotch-Weld™ Epoxy Adhesive DP190 Gray

3M™ Scotch-Weld™ Epoxy Adhesive DP190 is a two-part epoxy adhesive that delivers exceptional performance with high shear and peel strength. Extremely compatible, this epoxy adhesive bonds to a wide range of materials, including metals, ceramics, wood, fiberboard, glass, rubber, and many plastics.

- Provides tough, strong bonds with high shear and peel strength
- Capable of bonding to a wide variety of different materials
- Delivers extended work life, providing additional time for adjustment
- Formulated with low viscosity for easy dispensing

*Aluminum was acid etched before bonding.
*Composite materials were prepped with an IPA wipe/abrade/IPA wipe surface preparation method.

<table>
<thead>
<tr>
<th>Mix Ratio (Volume) B:A</th>
<th>Approximate Viscosity (cP) 75°F (24°C)</th>
<th>Approximate Mixed Work Life 75°F (24°C)*</th>
<th>Approximate Time to Handling Strength 75°F (24°C)</th>
<th>Floating Roller Peel (pli) 75°F (24°C)</th>
<th>Overlap Shear Aluminum (psi) 75°F (24°C)</th>
<th>Overlap Shear Aluminum (psi) -67°F (-55°C)</th>
<th>Overlap Shear Carbon Fiber-Reinforced Epoxy (psi) 75°F (24°C)</th>
<th>Overlap Shear Glass Fiber-Reinforced Epoxy (psi) 75°F (24°C)</th>
<th>Overlap Shear Sheet Molding Compound (SMC) (psi) 75°F (24°C)</th>
<th>Available Sizes</th>
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<tbody>
<tr>
<td>DP190 1:1</td>
<td>80,000</td>
<td>90 minutes</td>
<td>10 hours</td>
<td>56</td>
<td>1,500</td>
<td>400</td>
<td>2150 AF</td>
<td>2620 CF</td>
<td>1470 CF</td>
<td>50ml, 200ml, 400ml</td>
</tr>
</tbody>
</table>

KEY: SF - Substrate Failure  CF - Cohesive Failure  AF - Adhesive Failure

For more information, visit 3M.com/compositebonding
3M™ Scotch-Weld™ Low Odor Acrylic Adhesive DP810

3M™ Scotch-Weld™ Low Odor Acrylic Adhesive DP810 is a toughened, two-part, room temperature curing, acrylic adhesive specially formulated to bond oily metals, plastics and other surfaces. 3M pioneered the bonding of surfaces which have traditionally been seen as ‘hard-to-bond,’ such as oily metal and low surface energy plastics like polyethylene and polypropylene.

- Low odor adhesive is ideal for any setting where harsh fumes or flammability are an issue
- Provides high shear and peel strength and is toughened for impact resistance
- Bonds oily metals with minimal surface prep
- Bonds most plastics
- Effective system for joining, gluing, adhering, attaching, repairing, potting, panel bonding, adhering, and structural bonding

For more information, visit 3M.com/compositebonding
3M™ Scotch-Weld™ Structural Plastic Adhesive DP8010 Blue

3M™ Scotch-Weld™ Structural Plastic Adhesive DP8010 is a two-part, acrylic-based adhesive specially formulated to bond many low surface energy plastics, including many grades of polypropylene, polyethylene and thermoplastic elastomers (TPEs) without special surface preparation.

- Creates a strong bond on low surface energy plastics with minimal or no prep required
- Resists many chemicals, water, humidity, and corrosion
- Medium viscosity allows controlled dispensing
- Formulated to bond dissimilar substrates for multiple uses in the same application
- Strong adhesive can replace screws, rivets, plastic welding, and two-step processes

<table>
<thead>
<tr>
<th>Mix Ratio (Volume) B:A</th>
<th>Approximate Viscosity (cP) 75°F (24°C)*</th>
<th>Approximate Mixed Work Life 75°F (24°C)*</th>
<th>Approximate Time to Handling Strength 75°F (24°C)</th>
<th>Floating Roller Peel (psi) 75°F (24°C)</th>
<th>Overlap Shear Aluminum (psi) 75°F (24°C)</th>
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<th>Overlap Shear Sheet Molding Compound (SMC) (psi) 75°F (24°C)</th>
<th>Available Sizes</th>
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<tbody>
<tr>
<td>DP8010 Blue</td>
<td>10:1</td>
<td>20,000</td>
<td>10 minutes</td>
<td>1 hour</td>
<td>14</td>
<td>2,700</td>
<td>2,700</td>
<td>500</td>
<td>2400 CF</td>
<td>2050 CF</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1010 SF</td>
<td>45ml, 490ml, 1 gal, 5 gal, 55 gal</td>
</tr>
</tbody>
</table>

*Aluminum was acid etched before bonding.
*Composite materials were prepped with an IPA wipe/abrade/IPA wipe surface preparation method.

For more information, visit 3M.com/compositebonding
3M™ Scotch-Weld™ Structural Plastic Adhesive DP8005

3M™ Scotch-Weld™ Structural Plastic Adhesive DP8005 is a 10:1 ratio, two-part, acrylic-based adhesive specially formulated to bond many low surface energy plastics. It will adhere many grades of polypropylene, polyethylene, and thermoplastic elastomers (TPEs) without special surface preparation.

- Ability to structural bond low surface energy plastics such as polyolefins, polypropylene, polyethylene, and TPEs
- Excellent resistance to water and humidity, combined with very good chemical resistance, results in a bond that can withstand a variety of applications and conditions
- Cures at room temperature without heat or other chemicals to eliminate complex adhesion processes
- One-step process results in a strong bond on low surface energy plastics, minimizing or eliminating pre-treatment or preparation of the substrates prior to bonding
- Solvent-free adhesive system

For more information, visit 3M.com/compositebonding
3M™ Scotch-Weld™ Acrylic Adhesive DP8410NS

3M™ Scotch-Weld™ Acrylic Adhesive DP8410NS is a non-sag, toughed, two-part acrylic adhesive. It provides improved adhesion to many plastics and metals, including those with slightly oily surfaces. It's a durable adhesive that features a fast rate of strength build to provide structural strength in just minutes.

- Durable finished bond with excellent shear and high impact strength
- Bonds difficult surfaces such as powder coats and oily surfaces
- Fast adhesion reduces waiting and maximizes work efficiency
- High strength, easy plastic bonding
- Glass bead technology to control bond line thickness and produce consistent quality

Mix Ratio (Volume) B:A | Approximate Viscosity (cp) 75°F (24°C) | Approximate Mixed Work Life 75°F (24°C)* | Approximate Time to Handling Strength 75°F (24°C) | Floating Roller Peel (psi) 75°F (24°C) | Overlap Shear Aluminum (psi) 75°F (24°C) | Overlap Shear Glass Fiber-Reinforced Epoxy (psi) 75°F (24°C) | Overlap Shear Carbon Fiber-Reinforced Epoxy (psi) 75°F (24°C) | Overlap Shear Molding Compound (SMC) 75°F (24°C) | Available Sizes
---|---|---|---|---|---|---|---|---|---
DP8410NS | 10:1 | 70,000 | 10 minutes | 20 minutes | 54 | N/A | 3,600 | 900 | 4570 CF | 2310 AF | 1170 SF | 45ml, 490ml, 5 gal, 55 gal

*Aluminum was acid etched before bonding.
*Composite materials were prepped with an IPA wipe/abrade/IPA wipe surface preparation method.
3M™ Scotch-Weld™ Multi-Material Composite Urethane Adhesive DP6310NS

3M™ Scotch-Weld™ Composite and Multiple Material Bonding Adhesive is a two-part urethane adhesive that is used to bond most types of composites, metals and multiple materials together. This product is fast drying, with a 10-minute work time. It is designed to bond multiple applications and is ideal for bonding composites.

- A high performance, two-component urethane adhesive
- Along with metals, bonds SMC and FRP (traditional fiberglass) materials to each other and to metal frames
- Easy dispensing system

<table>
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<tr>
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<th>Approximate Time to Handling Strength 75°F (24°C)</th>
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<th>Overlap Shear Sheet Molding Compound (SMC) (psi) 75°F (24°C)</th>
<th>Available Sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>DP6310NS</td>
<td>1:1</td>
<td>Paste</td>
<td>10 minutes</td>
<td>30 minutes</td>
<td>23</td>
<td>2000 CF</td>
<td>2050 CF</td>
<td>2300 CF</td>
<td>3200 SF</td>
<td>2400 SF</td>
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</tbody>
</table>

*Aluminum was acid etched before bonding.
*Composite materials were prepped with an IPA wipe/abrade/IPA wipe surface preparation method.

For more information, visit 3M.com/compositebonding
3M™ Scotch-Weld™ Low Odor Acrylic Adhesive DP8805NS

3M™ Scotch-Weld™ Low Odor Acrylic Adhesive DP8805NS is a low-odor, non-sag, toughened, two-part acrylic adhesive. This adhesive is an ideal choice for a wide variety of industrial and commercial applications since it cures twice as fast as most other competitive acrylic adhesives with a comparable open time.

- Durable finished bond with excellent shear and high impact strength
- Low odor and non-flammable properties for a safer working environment compared to typical acrylic adhesives
- Bonds difficult surfaces such as powder coats and oily surfaces
- Fast adhesion and drying time reduces waiting and maximizes work efficiency
- Features glass shimming beads to control bond line thickness to prevent excessive squeeze out

For more information, visit 3M.com/compositebonding