Next Generation Structural Acrylic Adhesives
Enhance Productivity and Performance
3M™ Scotch-Weld™ Structural Acrylic Adhesives

Solving the challenges of speed, strength, shelf life and odor.

**Fast Rate of Strength Build**

Designed for productivity, DP8805NS can reach over 1,000 psi of overlap shear strength in less than nine minutes. Its rate of strength build is twice as fast as ordinary acrylic adhesives.

The advantage: higher throughput and increased productivity.

**Higher Impact Resistance**

DP8405NS has over three times the impact strength of ordinary acrylic adhesives. Higher impact resistance makes it ideal for many industrial applications, helping build stronger products for challenging applications.

The advantage: improved impact resistance helps make your products more durable.

**Longer Shelf Life and Easier Storage**

3M’s Next Generation Structural Acrylic Adhesives do not require refrigeration, making them easier to store. They also have an 18-month shelf life*, more than double that of conventional acrylic adhesives, which can help to reduce scrap and disposal costs due to expired inventory.

The advantage: reduced costs and improved logistics.

**Improving Your Workplace with Low Odor Adhesives**

Everyone on your team will appreciate the low odor formulation of our new 8800 series of Structural Acrylic Adhesives. They are a dramatic improvement over traditional formulations, and will help improve your health and safety concerns with their reduced odor and non-flammable formulations.

* 12-month shelf life for DP8407NS
Enhancing Processes and Improving Products

Next Generation Structural Acrylic Adhesives from 3M are ideal for many applications, providing you the opportunity to improve both products and processes. Their faster set times allow you to enhance productivity, while their higher impact resistance and performance features can help improve your products. Markets and applications include:

### Signage
- Panel to frame bonding
- Trim attachment
- Letter bonding
- Seam sealing
- Frame assembly

### HVAC
- Floor panel and drain pan to frame
- Side wall panel attachment to frame
- Stiffener to panel

### Transportation
- Metal skin to metal frame
- Composite cab assembly
- Frame assembly
- Floor panel bonding
- Exterior panel bonding
- Roof bonding

### 3M Next Generation Structural Acrylic Adhesives Features & Benefits

<table>
<thead>
<tr>
<th>Feature:</th>
<th>Benefit:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonds powder coats and slightly oily surfaces</td>
<td>Structural bonds to difficult-to-bond materials</td>
</tr>
<tr>
<td>High peel strength</td>
<td>Reduce product failure</td>
</tr>
<tr>
<td>Elevated, extreme temperature performance</td>
<td>Maintains structural strength from -40°F (-40°C) to 180°F (82°C)</td>
</tr>
<tr>
<td>Low chlorine / bromine</td>
<td>Fewer halogens means a better EHS profile and ideal for electronics</td>
</tr>
<tr>
<td>Colored pigment in accelerator</td>
<td>Visual confirmation of mix ratio ensures correct adhesive curing</td>
</tr>
<tr>
<td>Glass beads for controlled bond line thickness</td>
<td>Structural bonds with consistent quality</td>
</tr>
<tr>
<td>Longer nozzle life</td>
<td>Fewer nozzle changeovers saves money</td>
</tr>
<tr>
<td>Lower exotherm</td>
<td>Less heat generated is ideal for heat-sensitive substrates</td>
</tr>
<tr>
<td>Heat-accelerated cure when needed</td>
<td>Structural strength in seconds at 150°F (70°C)</td>
</tr>
</tbody>
</table>
3M™ Scotch-Weld™ Metal Bonder Acrylic Adhesive DP8407NS
Changing what’s possible for bonding metal assemblies.

High Strength Solution for Extreme Temperature Processes

Advantages for Products and Processes
Promotes adhesion to bare steel, aluminum and most other metals and eliminates the process and finishing time associated with welding and mechanical fasteners.

Handles Extreme Oven Temperatures
Handles extreme temperatures up to 400°F (204°C) for at least one hour and is designed to withstand powder coat and paint bake processes.

Load Bearing Performance
Maintains load-bearing performance at extreme temperatures.

Improved Bare Metal Applications

Advantages for Products and Processes
Bonds aluminum, steel, galvanized steel, brass, copper, nickel, and most other metals, eliminating the need for metal fasteners or welding.

Resists Corrosion
Corrosion resistance minimizes performance loss compared to standard acrylics.

Bonds Oily Metal
Minimal surface prep for easy bonding to oily metal.

Overlap Shear Strength After Simulated Powdercoat Process

Dead Load Holding Strength at 400°F (204°C) for 1 Hour
DP8407NS holds a load of 75 psi at 400°F (204°C) for 1 hour

Bond Strength Retention after High Temperature and Humidity Exposure
Overlap shear on abraded cold rolled steel; 72°F test temperature; 500 hours exposure 150°F + 80% RH

Bond to Oily Metal with No Surface Preparation
80-90% performance retention bonding to oily metals
The Advantage of Acrylic Adhesives

Manufacturers around the world rely on acrylic adhesives to design and produce innovative new products. Acrylic adhesives improve aesthetics, bond to plastics and metals, and even deliver a secure bond between oily or contaminated surfaces. Despite improving many aspects of the assembly process, traditional acrylic adhesives have been challenged by:

- High levels of odors that can cause Environmental, Health & Safety concerns
- Lower impact resistance that result in brittle bonds
- Limited shelf life and refrigeration required

Next Generation Advancements

The 3M™ Scotch-Weld™ Structural Adhesives product development team focused on solving these challenges in the next generation of structural acrylic adhesives. Key features of these new acrylic adhesives include:

- **Low Odor**
  The 8800 family of products features a new low odor, non-flammable formulation that your entire team will appreciate.

- **Faster Cure**
  DP8805NS cures almost twice as fast as ordinary acrylic adhesives with the same work life.

- **Higher Impact Resistance**
  DP8405NS has over three times the impact strength of conventional acrylic adhesives.

- **No Refrigeration & 18-Month Shelf Life**
  Easier storage and longer shelf life can help to reduce scrap and disposal costs due to expired inventory.

Designed for innovation, 3M™ Scotch-Weld™ Structural Acrylic Adhesives will help you improve both productivity and performance, while reducing health and safety concerns and costs.

* 12-month shelf life for DP8407NS
### Next Generation Structural Acrylic Adhesives

**Hardware**

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>SIZE</th>
<th>UNITS/CASE</th>
<th>UPC</th>
<th>STOCK #</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPX Plus II Applicator</td>
<td>45 mL</td>
<td>10</td>
<td>00-021200-5004-6</td>
<td>62-9170-9930-1</td>
</tr>
<tr>
<td>Plunger 10:1</td>
<td>45 mL</td>
<td>10</td>
<td>00-051115-6904-0</td>
<td>62-9160-9910-4</td>
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<tr>
<td>Square Orange Nozzle</td>
<td>45 mL</td>
<td>36</td>
<td>00-051115-6904-3</td>
<td>62-9154-9136-9</td>
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<tr>
<td>Pneumatic Applicator 10:1</td>
<td>490 mL</td>
<td>1</td>
<td>00-051115-6904-1</td>
<td>62-9152-9930-9</td>
</tr>
<tr>
<td>Manual Applicator 10:1</td>
<td>490 mL</td>
<td>1</td>
<td>00-051115-7111-2</td>
<td>62-9182-9930-6</td>
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<tr>
<td>Helical Orange Nozzle</td>
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<td>36</td>
<td>00-051115-6904-2</td>
<td>62-9158-9136-0</td>
</tr>
<tr>
<td>Square Green Nozzle</td>
<td>490 mL</td>
<td>36</td>
<td>00-051115-8161-9</td>
<td>62-9184-9490-7</td>
</tr>
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