

3M™ Scotch-Weld™ Structural Acrylic Adhesives

DP8405NS, DP8410NS, DP8805NS, DP8810NS



Next Generation Structural Acrylic Adhesives

Enhance Productivity and Performance









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 odour that can cause health & safety concerns
- Longer set times that slow assembly processes
- Lower impact resistance that result in brittle bonds
- Limited shelf life

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:

- **Lower Odour** 
The 8800 family of products features a new low odour formulation that your entire team will appreciate.
- **Faster Cure** 
DP8805NS cures almost twice as fast as ordinary acrylic adhesives.
- **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 environmental concerns and costs.

3M™ Scotch-Weld™ Structural Acrylic Adhesives

Solving the Challenges of Speed, Strength and Shelf Life

Next Generation Structural Acrylic Adhesives from 3M bond faster and deliver higher impact resistance, helping you to build better products and improve productivity.



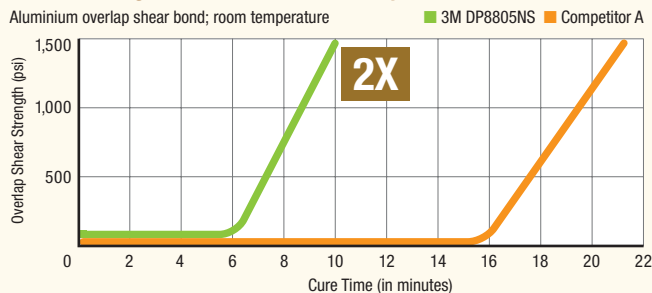
Faster Rate of Strength Build

Designed for productivity, DP8805NS can reach over 1,000 psi (7 MPa) 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.

Rate of Strength Build for Structural Acrylic Adhesives

Aluminium overlap shear bond; room temperature



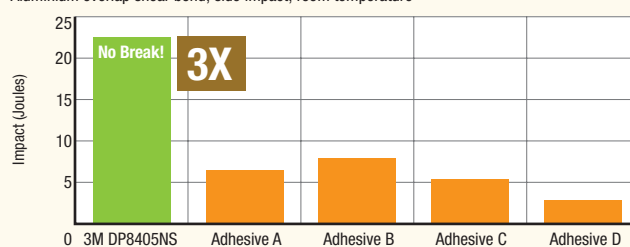
Higher Impact Resistance

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.

Impact Resistance of Structural Acrylic Adhesives

Aluminium overlap shear bond; side impact; room temperature



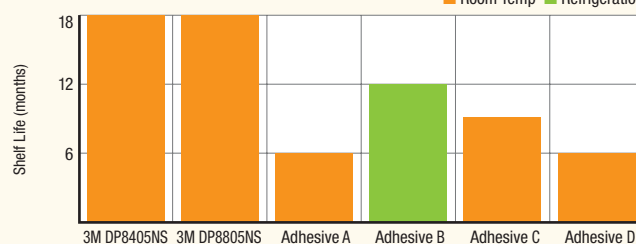
Longer Shelf Life, Easier Storage

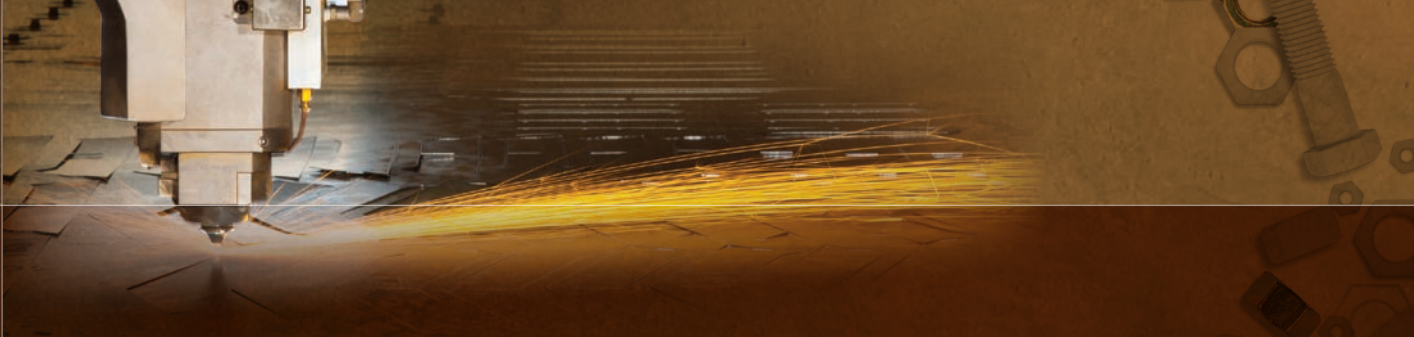
3M's Next Generation Structural Acrylic Adhesives do not require refrigeration, making them easier to store. They also have an 18-month shelf life, more than double that of conventional acrylic adhesives, which can help to reduce scrap and disposal costs due to expired inventory.

The advantage: reduced costs and improved logistics.

Shelf Life & Storage Temperature of Structural Acrylic Adhesives

Room Temp Refrigeration





3M Next Generation Structural Acrylic Adhesives Features & Benefits

Feature:

- Bonds powder coats and slightly oily surfaces
- High peel strength
- Elevated temperature performance
- Coloured dye in accelerator
- Glass beads for controlled bond line thickness
- Longer nozzle life than similar, fast curing acrylics
- Lower exotherm than similar, fast curing acrylics
- Heat-accelerated cure when needed

Benefit:

- Structural bonds to difficult-to-bond materials
- Reduce product failure
- Maintains structural strength at 180°F (82°C)
- Visual confirmation of mix ratio ensures quality of bond
- Structural bonds with consistent quality
- Fewer nozzle changeovers saves money
- Less heat generated is ideal for heat-sensitive substrates
- Structural strength in seconds at 150°F (70°C)

Improving Your Workplace with Low Odour Adhesives

Everyone on your team will appreciate the low odour formulation of our new 8800 series of Structural Acrylic Adhesives. They are a dramatic improvement over traditional formulations, and will help improve your environment and operator health & safety with their reduced odour formulations.





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

Structural Acrylic Adhesive Key Properties

Product	Key Features	Mix Ratio B:A (Volume)	Approximate Mixed Viscosity at 22°C (72°F)	Approximate Work Life at 22°C (72°F)	Approximate Time to Structural Strength at 22°C (72°F)	Overlap Shear to Aluminum at 22°C (72°F)	Overlap Shear to Aluminum at 82°C (180°F)	Floating Roller Peel to Aluminum at 22°C (72°F)
DP8405NS Green	<ul style="list-style-type: none"> • High impact • Adhesion to most plastics 	10:1	70,000 cP	5 minutes	15 minutes	4,100 psi 28.5 MPa	900 psi 6.25 MPa	50 piw 8.75 N/mm
DP8410NS Green	<ul style="list-style-type: none"> • High impact • Adhesion to most plastics 	10:1	70,000 cP	10 minutes	25 minutes	4,100 psi 28.5 MPa	800 psi 5.6 MPa	50 piw 8.75 N/mm
DP8805NS Green	<ul style="list-style-type: none"> • Low odour • Fast rate of strength build 	10:1	80,000 cP	5 minutes	10 minutes	4,100 psi 25.0 MPa	900 psi 6.25 MPa	30 piw 5.25 N/mm
DP8810NS Green	<ul style="list-style-type: none"> • Low odour • Fast rate of strength build 	10:1	80,000 cP	10 minutes	20 minutes	3,600 psi 25.0 MPa	800 psi 5.6 MPa	30 piw 5.25 N/mm



3M™ Scotch-Weld™ Structural Acrylic Adhesives

PRODUCT	Duo-Paks		BULK PART B		BULK PART A	
	45 mL	490 mL	5 Gallon Pail (18.92 Litres)	55 Gallon Drum (208 Litres)	A3-1 Accelerator 1 Gallon Can (3.79 Litres)	A3-1 Accelerator 5 Gallon Pail (18.92 Litres)
8405NS Green	✓	✓	✓	✓	✓	✓
8410NS Green	✓	✓	✓	✓	✓	✓
8805NS Green	✓	✓	✓	✓	✓	✓
8810NS Green	✓	✓	✓	✓	✓	✓

Hardware

PRODUCT	SIZE	Units/Case
EPX Plus II Applicator	45 ml	10
Plunger 10:1	45 ml	10
Square Nozzle (orange)	45 ml	36
Pneumatic Applicator 10:1	490 ml	1
Manual Applicator 10:1	490 ml	1
Helical Nozzle (blue)	490 ml	36

Important Notice: The information contained in this brochure is based on tests and data which 3M believes to be reliable, but the accuracy or completeness of such statements and information is not guaranteed. The user is responsible for determining whether a specific 3M Adhesive is suitable for the purpose intended and for the user's method of application. All questions of liability relating to 3M Adhesives are governed by our terms of sale subject, where applicable to prevailing law.



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