

3M Science.
Applied to Life.™

3M | **Scotch-Weld™**
Structural Adhesive

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.

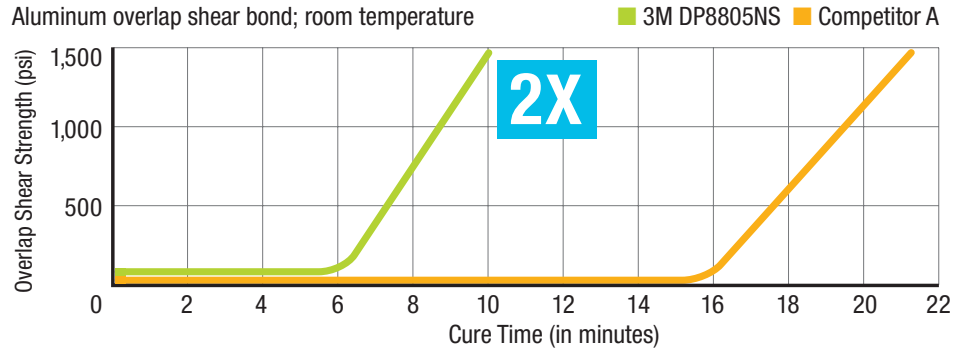


Fast Rate of Strength Build

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.

Aluminum overlap shear bond; room temperature

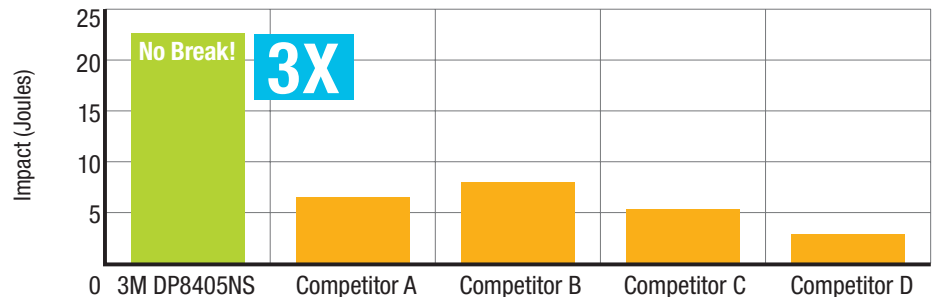


Higher Impact Resistance

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.

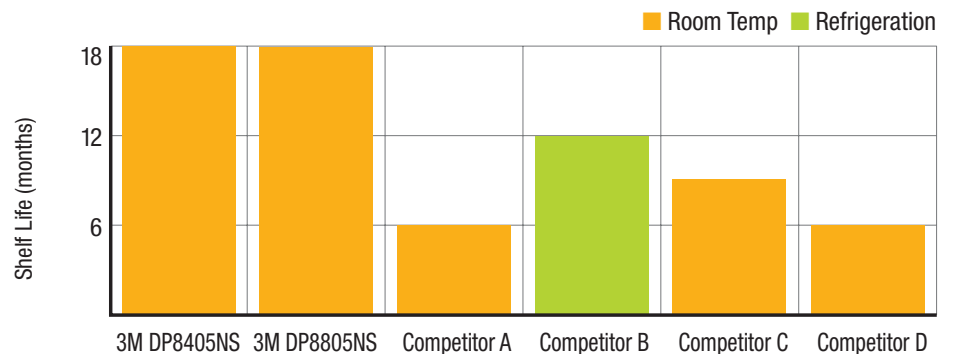
Aluminum overlap shear bond; side impact; room temperature



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

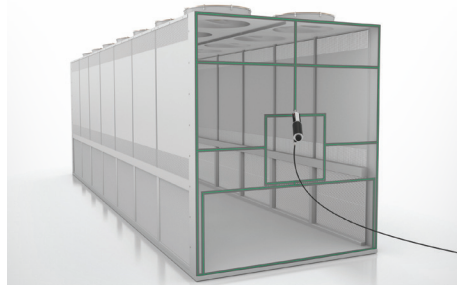
Enhancing Processes and Improving Products

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

Feature:

- Bonds powder coats and slightly oily surfaces
- High peel strength
- Elevated, extreme temperature performance
- Low chlorine / bromine
- Colored pigment in accelerator
- Glass beads for controlled bond line thickness
- Longer nozzle life
- Lower exotherm
- Heat-accelerated cure when needed

Benefit:

- Structural bonds to difficult-to-bond materials
- Reduce product failure
- Maintains structural strength from -40°F (-40°C) to 180°F (82°C)
- Fewer halogens means a better EHS profile and ideal for electronics
- Visual confirmation of mix ratio ensures correct adhesive curing
- 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)

3M™ Scotch-Weld™ Metal Bonder Acrylic Adhesive DP8407NS

Changing what's possible for bonding metal assemblies.

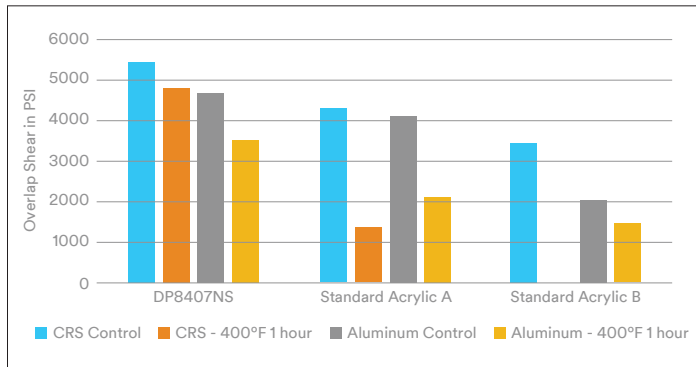
High Strength Solution for Extreme Temperature Processes

Advantages for Products and Processes

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

Handles Extreme Oven Temperatures

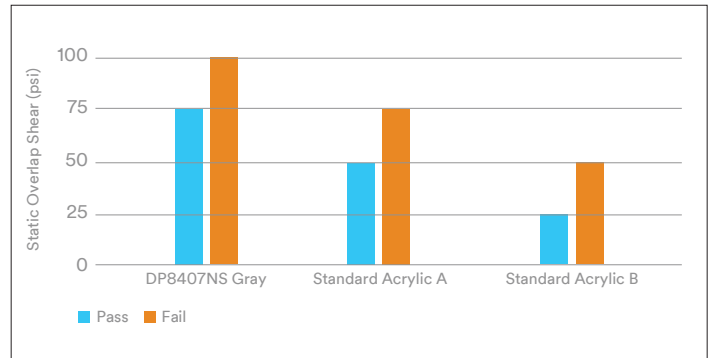
Handles extreme temperatures up to 400°F (204°C) for at least one hour and is designed to withstand powder coat and paint bake processes.



Overlap Shear Strength After Simulated Powdercoat Process

Load Bearing Performance

Maintains load-bearing performance at extreme temperatures.

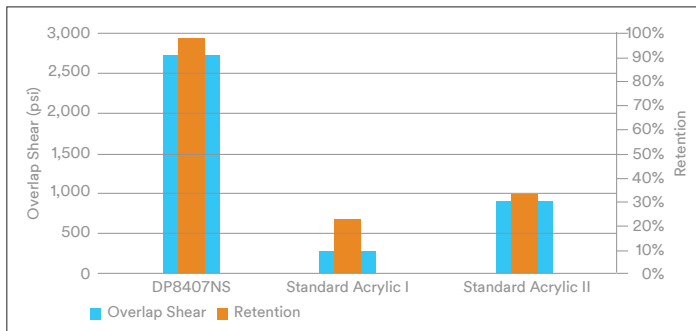


Dead Load Holding Strength at 400°F (204°C) for 1 Hour
DP8407NS holds a load of 75 psi at 400°F (204° C) for 1 hour

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.



Bond Strength Retention after High Temperature and Humidity Exposure

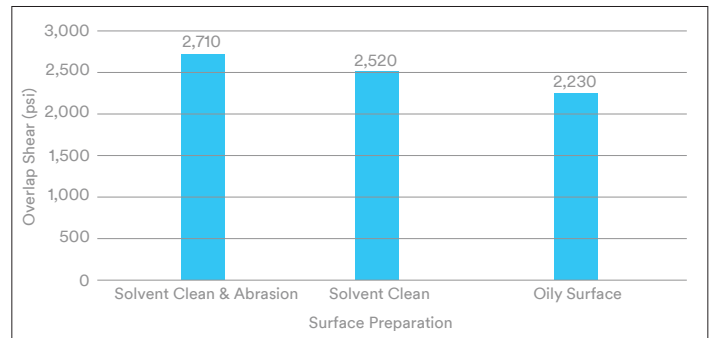
Overlap shear on abraded cold rolled steel; 72°F test temperature; 500 hours exposure 150°F + 80% RH

Resists Corrosion

Corrosion resistance minimizes performance loss compared to standard acrylics.

Bonds Oily Metal

Minimal surface prep for easy bonding to oily metal.



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

3M™ Scotch-Weld™ Next Generation Structural Acrylic 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)			Size	UPC	Stock #	
							-40°F (-40°C)	75°F (24°C)	180°F (82°C)				
LOW ODOR													
LEAD PRODUCT DP8805NS (Green)	Low odor Fast rate of strength build	10:1	45,000	5 minutes	10 minutes	30	800	3,900	900	45ml 490ml 1 gal. can A 5 gal. pail B 5 gal. pail A 55 gal. drum B	00-076308-98433-5 00-076308-98439-7 00-051115-81415-0 00-076308-98440-3 00-051115-81414-3 00-076308-98441-0	62-2852-1446-6 62-2852-3631-1 62-2962-7530-8 62-2852-8531-8 62-2962-8530-7 62-2852-9531-7	
	DP8810NS (Green)	Low odor Fast rate of strength build	10:1	45,000	10 minutes	20 minutes	30	900	3,600	900	45ml 490ml 1 gal. can A 5 gal. pail B 5 gal. pail A 55 gal. drum B	00-051115-68960-4 00-051115-68962-8 00-051115-81415-0 00-051115-68982-6 00-051115-81414-3 00-051115-68981-9	62-2854-1446-2 62-2854-3631-7 62-2962-7530-8 62-2854-8531-4 62-2962-8530-7 62-2954-9531-3
	DP8810NS (Gray)	Low odor Fast rate of strength build	10:1	45,000	10 minutes	20 minutes	30	900	3,600	900	45ml 490ml	00-076308-86152-0 00-076308-98485-4	62-2858-1450-5 62-2858-3631-8
	DP8825NS (Green)	Low odor Fast rate of strength build	10:1	40,000	25 minutes	50 minutes	20	1,000	3,100	700	45ml 490ml 1 gal. can A 5 gal. pail B 5 gal. pail A 55 gal. drum B	00-051115-81288-0 00-051115-81289-7 00-051115-81415-0 00-051115-81290-3 00-051115-81414-3 00-051115-81291-0	62-2866-1445-8 62-2866-3630-3 62-2962-7530-8 62-2866-8530-0 62-2962-8530-7 62-2866-9530-9
MMA													
LEAD PRODUCT DP8405NS (Green)	High impact Adhesion to most plastics	10:1	60,000	5 minutes	15 minutes	50	2,600	4,400	1,300	45ml 490ml 1 gal. can A 5 gal. pail B 5 gal. pail A 55 gal. drum B	00-051115-68963-5 00-051115-68964-2 00-051115-68981-9 00-051115-68986-4 00-051115-68980-2 00-051115-68987-1	62-2856-1445-9 62-2856-3630-4 62-2952-7530-9 62-2856-8530-1 62-2952-8530-8 62-2856-9530-0	
	DP8410NS (Green)	High impact Adhesion to most plastics	10:1	60,000	10 minutes	25 minutes	50	3,600	3,900	1,250	45ml 490ml 1 gal. can A 5 gal. pail B 5 gal. pail A 55 gal. drum B	00-051115-70994-4 00-051115-70995-1 00-051115-68981-9 00-051115-70997-5 00-051115-68980-2 00-051115-71101-0	62-2860-1445-1 62-2860-3630-6 62-2952-7530-9 62-2853-9530-7 62-2952-8530-8 62-2860-9530-2
	DP8425NS (Green)	High impact Adhesion to most plastics	10:1	85,000	25 minutes	50 minutes	50	3,800	3,800	1,450	45ml 490ml 1 gal. can A 5 gal. pail B 5 gal. pail A 55 gal. drum B	00-051115-81303-0 00-051115-81302-3 00-051115-68981-9 00-051115-81298-9 00-051115-68980-2 00-051115-68980-2	62-2862-1445-7 62-2862-3630-2 62-2952-7530-9 62-2862-8530-9 62-2952-8530-8 62-2862-9530-8
	DP8407NS (Gray)	High impact Adhesion to most metals	10:1	20,000	7 minutes	24 minutes	50	3,400	4,500	1,400	45 ml 490 ml 1 gal. can A 5 gal. pail B 5 gal. pail A 55 gal. drum B	00-076308-86273-2 00-076308-86285-5 00-076308-86366-1 00-076308-86306-7 00-076308-86367-8 00-076308-98878-4	62-2853-1445-6 62-2853-3630-1 62-2953-7530-7 62-2853-8530-8 62-2953-8530-6 62-2853-9530-7

Hardware

PRODUCT	SIZE	UNITS/CASE	UPC	STOCK #
EPX Plus II Applicator	45 mL	10	00-021200-50004-6	62-9170-9930-1
Plunger 10:1	45 mL	10	00-051115-69044-0	62-9160-9910-4
Square Orange Nozzle	45 mL	36	00-051115-69043-3	62-9154-9136-9
Pneumatic Applicator 10:1	490 mL	1	00-051115-69041-9	62-9152-9930-9
Manual Applicator 10:1	490 mL	1	00-051115-71115-2	62-9182-9930-6
Helical Orange Nozzle	490 mL	36	00-051115-69042-6	62-9158-9136-0
Square Green Nozzle	490 mL	36	00-051115-81619-2	62-9184-9490-7

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