

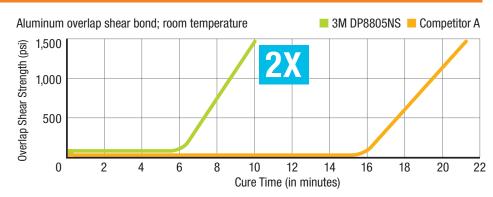
# 3M<sup>™</sup> Scotch-Weld<sup>™</sup> Structural Acrylic Adhesives

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.

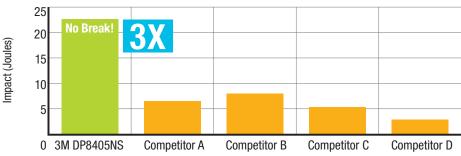
<u>The advantage</u>: higher throughput and increased productivity.



#### 📲 Higher Impact Resistance

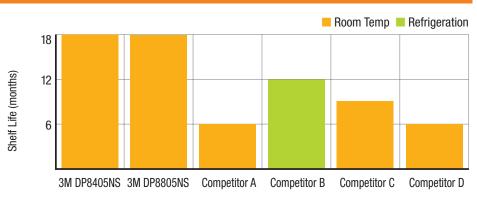
DP8405NS has over three times the impact strength of ordinary acrylic adhesives. Higher impact resistance makes it ideal for many industrial applications, helping build stronger products for challenging applications.

<u>The advantage</u>: 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.



<u>The advantage</u>: 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.

#### 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<sup>™</sup> Scotch-Weld<sup>™</sup> Metal Bonder<sup>™</sup> Acrylic Adhesive DP8407NS

#### Changing what's possible for bonding metal assemblies.

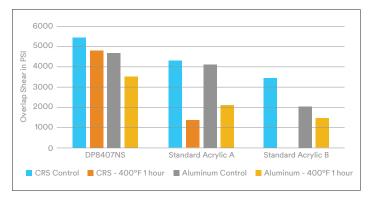
#### **High Strength Solution for Extreme Temperature Processes**

#### **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** 

#### **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.

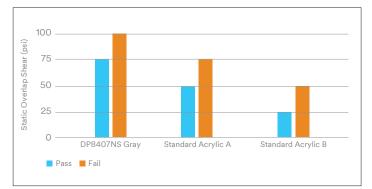


#### Bond Strength Retention after High Temperature and Humidity Exposure

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

#### Load Bearing Performance

Maintains load-bearing performance at extreme temperatures.



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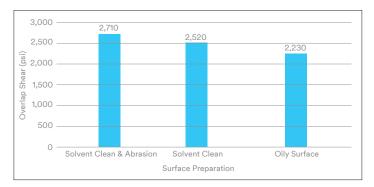
**Dead Load Holding Strength at 400°F (204°C) for 1 Hour** DP8407NS holds a load of 75 psi at 400°F (204°C) for 1 hour

#### **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<sup>™</sup> Scotch-Weld<sup>™</sup> 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.

DP8805NS cures almost twice as fast as ordinary

acrylic adhesives with the same work life.

#### A 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<sup>™</sup> Scotch-Weld<sup>™</sup> Structural Acrylic Adhesives will help you improve both productivity and performance, while reducing health and safety concerns and costs.

**Faster Cure** 

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

#### 3M<sup>®</sup> Scotch-Weld<sup>®</sup> Next Generation Structural Acrylic Adhesives **Overlap Shear (psi)** I OW ODOR 00-076308-98433-5 62-2852-1446-6 DP8805NS Low odor 10:1 45.000 5 minutes 10 minutes 30 800 3.900 900 45ml 490ml 00-076308-98439-7 62-2852-3631-1 (Green) Fast rate of 62-2962-7530-8 00-051115-81415-0 1 gal. can A strength build 5 gal. pail B 00-076308-98440-3 62-2852-8531-8 5 gal. pail A 00-051115-81414-3 62-2962-8530-7 55 gal. drum B 00-076308-98441-0 62-2852-9531-7 00-051115-68960-4 62-2854-1446-2 DP8810NS 10 minutes 20 minutes 900 Low odor 10:1 45.000 30 900 3.600 45ml 00-051115-68962-8 62-2854-3631-7 490ml (Green) Fast rate of 1 gal. can A 00-051115-81415-0 62-2962-7530-8 strength build 62-2854-8531-4 5 gal. pail B 00-051115-68982-6 00-051115-81414-3 62-2962-8530-7 5 gal. pail A 55 gal. drum B 00-051115-68981-9 62-2954-9531-3 DP8810NS 45,000 3,600 00-076308-86152-0 62-2858-1450-5 Low odor 10:1 10 minutes 20 minutes 30 900 900 45ml 490ml 00-076308-98485-4 62-2858-3631-8 (Gray) Fast rate of strength build 00-051115-81288-0 62-2866-1445-8 DP8825NS Low odor 10.1 40.000 25 minutes 50 minutes 20 1.000 3.100 700 45ml 00-051115-81289-7 62-2866-3630-3 490ml (Green) Fast rate of 1 gal. can A 00-051115-81415-0 62-2962-7530-8 strength build 5 gal. pail B 00-051115-81290-3 62-2866-8530-0 5 gal. pail A 00-051115-81414-3 62-2962-8530-7 55 gal. drum B 00-051115-81291-0 62-2866-9530-9 MMA 00-051115-68963-5 62-2856-1445-9 DP8405NS High impact 10:1 60.000 1,300 45ml 5 minutes 15 minutes 50 2.600 4.400 00-051115-68964-2 62-2856-3630-4 490ml (Green) Adhesion to 1 gal. can A 00-051115-68981-9 62-2952-7530-9 most plastics 62-2856-8530-1 5 gal. pail B 00-051115-68986-4 00-051115-68980-2 5 gal. pail A 62-2952-8530-8 55 gal. drum B 00-051115-68987-1 62-2856-9530-0 DP8410NS 45ml 00-051115-70994-4 62-2860-1445-1 High impact 10:1 60.000 10 minutes 25 minutes 50 3.600 3.900 1,250 490ml 00-051115-70995-1 62-2860-3630-6 (Green) Adhesion to 00-051115-68981-9 1 gal. can A 62-2952-7530-9 most plastics 5 gal. pail B 00-051115-70997-5 62-2853-9530-7 5 gal. pail A 00-051115-68980-2 62-2952-8530-8 55 gal. drum B 00-051115-71101-0 62-2860-9530-2 00-051115-81303-0 62-2862-1445-7 DP8425NS High impact 10:1 85.000 25 minutes 50 minutes 50 3.800 3.800 1.450 45ml 62-2862-3630-2 62-2952-7530-9 490ml 00-051115-81302-3 (Green) Adhesion to 1 gal. can A 00-051115-68981-9 most plastics 00-051115-81298-9 62-2862-8530-9 5 gal. pail B 00-051115-68980-2 5 gal. pail A 62-2952-8530-8 55 gal. drum B 00-051115-68980-2 62-2862-9530-8

#### Hardware

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

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



#### Industrial Adhesives & Tapes Division

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