

Technical Data Sheet

3M™ Scotch-Weld™ Low Odor Acrylic Adhesive DP810NS

Product Description

3M™ Scotch-Weld™ Low Odor Acrylic Adhesives are two-part, 1:1 mix ratio, toughened structural adhesives with less odor than most acrylic adhesives. These adhesives have excellent shear and peel strength along with good impact resistance and durability. They can quickly bond to most metals, ceramics, rubbers, plastics and wood with minimal surface preparation.



Product Features

- Tough, durable bonds
- Low odor acrylic adhesive
- Minimal surface prep
- 10 minute work life
- 20 minute time to handling strength
- 1:1 mix ratio
- Bonds stainless steel
- Excellent shear and peel strength

Technical Information Note

The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Typical Uncured Physical Properties

Property	Values	Additional Information
Base Color	Blue/Green	
Accelerator Color	White	
Base Viscosity	90000 to 95000 cP	View 
Temp C: 23C Temp F: 72F		
Notes: Viscosity obtained by Brookfield, DV-II, #7 Spindle, 20 rpm		
Accelerator Viscosity	95000 to 100000 cP	View 
Temp C: 23C Temp F: 72F		
Notes: Viscosity obtained by Brookfield, DV-II, #7 Spindle, 20 rpm.		
Base Resin	Acrylic	

Accelerator Resin	Acrylic
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Base Net Weight	8.7 to 9.1 lb/gal
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Accelerator Net Weight	8.7 to 9.1 lb/gal
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Mix Ratio by Volume (B:A)	1:1
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Mix Ratio by Weight (B:A)	1:1
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Typical Mixed Physical Properties

Property	Values	Additional Information
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Worklife	10 min	View 
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Temp C: 23C
Temp F: 73F

Set Time (min)	20 min	View 
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Temp C: 23C
Temp F: 73F

Notes: Minimum time required to achieve 50 psi of overlap shear strength. Cure times are approximate and depend on adhesive temperature.


Time to Full Cure	8 to 24 hr	View 
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Temp C: 23C
Temp F: 73F

Notes: Time to develop 80% of maximum overlap shear values.

Typical Performance Characteristics

Property	Values	Additional Information
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T-Peel Adhesion	23 lb/in width	View 
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Test Method: ASTM D1876

Dwell/Cure Time: 6.0
Dwell Time Units: hr
Temp C: 23C
Temp F: 73F
Substrate: Etched Aluminum

Notes: Peel tests on FPL etched, 0.032" gauge aluminum. Jaw separation rate 20"/min.

Storage and Shelf Life

For maximum shelf life, store Duo-Pak cartridges and bulk containers at 32°F (0°C) to 40°F (4°C). Do not freeze. When stored at the recommended temperatures in the original unopened containers, this product has a shelf life of 12 months from date of manufacture when in cartridges, and 6 months from date of manufacture in bulk pails.

Bottom Matter

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Handling/Application Information

Directions for Use

Apply adhesive to clean, dry substrates, which are free of paint, oxide films, oils, dust, mold release agents and all other surface contaminants. See the Surface Preparation section for specific substrate preparation method.

48.5 ml cartridge:

Place Duo-Pak cartridge in 3M™ EPX™ Applicator. Remove cap. Dispense and discard a small amount of adhesive to assure even ratio and free flow. Clear orifice if necessary. Attach mixing nozzle. Apply adhesive to clean surfaces, join parts, secure until adhesive sets.

200/400 ml cartridge

While holding Duo-Pak cartridge in an upright position, remove and discard the insert from the cartridge by unscrewing plastic nut and removing metal washer. Place cartridge in a 1:1 200/400 ml EPX applicator. Dispense and discard a small amount of adhesive to ensure even ratio and free flow. Attach mixing and nozzle and secure with plastic retaining nut. Apply adhesive to clean surfaces, join parts, secure until adhesive sets.

Clean-up:

Excess adhesive can be removed with solvent such as MEK*. part or bond line can be removed with isopropyl alcohol.*

Edge tack on a finished

*Note: When using solvents, extinguish all ignition sources and follow the manufacturer's precautions and directions for use.

Heat Cure:

Full cure can be attained by raising the bondline temperature to 120°F (49°C) for 30 minutes or to 150°F (66°C) for 10 minutes.

Surface Preparation

3M™ Scotch-Weld™ Low Odor Acrylic Adhesives can bond oily metal, plastic and other substrates with very little surface preparation. However, for the most consistent results and environmental resistance,

all substrates should be clean, dry and free of paint, oxide films, dust, mold release agents and all other surface contaminants. The amount of surface preparation directly depends on the bond strength and environmental resistance desired by the user.

The following cleaning methods are suggested for common surfaces.

Steel and Aluminum

- 1) Wipe free of dust with oil-free solvent such as acetone or isopropyl alcohol.*
- 2) Sandblast or abrade using clean fine grit abrasives (180 grit or finer).
- 3) Wipe again with solvent to remove loose particles.*
- 4) If a primer is used, it should be applied within 4 hours after surface preparation (or see instructions pertinent to a specific primer).

Note: Aluminum may also be acid etched. Follow the manufacturer's precautions and directions for this procedure.

Plastic/Rubber

- 1) Wipe with isopropyl alcohol.*
- 2) Abrade using fine grit abrasives (180 grit or finer).
- 3) Remove residue by wiping again with isopropyl alcohol.*

*Note: When using solvents, extinguish all ignition sources and follow the manufacturer's precautions and directions for use.

References

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/p/d/b40066492/
Safety Data Sheet SDS	https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=DP810NS

Family Group

Link Tags:

- DP810
- DP810 Black
- DP810NS

Products	Worklife	Set Time (min)
DP810	10 min	20 min
DP810NS	10 min	20 min
DP810 Black	10 min	20 min

Precautionary Information

Refer to Product Label and Safety Data Sheet for health and safety information before using this product. For additional health and safety information, call 1-800-364-3577 or (651) 737-6501.

Information

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