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Technical Data Sheet

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

Product Details

Regulatory Info/SDS

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

Attribute Name	Value
Mix Ratio by Weight (B:A)	1:1
Mix Ratio by Volume (B:A)	1:1

Attribute Name	Temperature	Value
Base Color		Blue/Green
Accelerator Color		White
Base Resin		Acrylic
Accelerator Resin		Acrylic
Base Net Weight		8.7 to 9.1 lb/gal
Accelerator Net Weight		8.7 to 9.1 lb/gal
Base Viscosity	22 °C (72 °F)	90,000 to 95,000 cP [1]
Accelerator Viscosity	22 °C (72 °F)	95,000 to 100,000 cP [2]

[1] Viscosity obtained by Brookfield, DV-II, #7 Spindle, 20 rpm

[2] Viscosity obtained by Brookfield, DV-II, #7 Spindle, 20 rpm.

Typical Mixed Physical Properties

Temperature: 22 °C (72 °F)

Attribute Name	Value
Worklife	10 min
Set Time (min)	20 min [1]
Time to Full Cure	8 to 24 h [2]

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

[2] The cure time is defined as that time required for the adhesive to achieve a minimum of 80% of the ultimate strength as measured by aluminum-aluminum OLS.

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.

Storage and Shelf Life

Store product at 32°F (0°C) to 40°F (4°C). Do not freeze. Allow product to reach room temperature prior to use.When stored at the recommended temperatures in the original unopened containers, this product has a shelf life of 15 months from date of manufacture when in cartridges, and 6 months from date of manufacture in bulk pails.

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.

Automotive Disclaimer

Select Automotive Applications: This product is an industrial product and has not been designed or tested for use in certain automotive applications, such as automotive electric powertrain battery or high voltage applications, which may require the product to be manufactured in a IATF certified facility, meet a Ppk of 1.33 for all properties, undergo an automotive production part approval process (PPAP), or fully adhere to automotive design or quality system requirements (e.g., IATF 16949 or VDA 6.3). Customer assumes all responsibility and risk if customer chooses to use this product in these applications.

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