

3M

Scotch-Weld™

Urethane Adhesive

DP-604NS, Black

Technical Data

July, 2003

Product Description

3M™ Scotch-Weld™ Urethane Adhesive DP-604NS is a black, rapid setting, two-component polyurethane. It is packaged as 1:1 ratio liquids in a duo-pak cartridge. With the squeeze of the trigger, the components are automatically mixed and easily dispensed as a bubble-free non-sag paste.

Suggested Applications:

Building & Construction Maintenance & Repair

Manufacturing & Assembly

- Bonds wood or metal door sills to concrete and seals permanently
- Bonds wood and metal door frames to wood or metal structure
- Bonds wood paneling to wood or plaster
- As a combination structural adhesive and sealant in construction applications
- Bonding of aluminum shades to glass
- Damming material against corrosion
- Sealing fabric water hoses
- General bonding and sealing (structural sealing)

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Typical Properties

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

Test	Conditions	Test Method	Properties
Viscosity Part A	77°F (25°C)	HBDVI + CP	1493 cps
Viscosity Part B	77°F (25°C)	HBDVI + CP	1237 cps
Viscosity of Mix	77°F (25°C)	HBDVI + CP	1.2 million cps
Work Life	10 g, 1/4" thick @ 77°F (25°C)	PEC	4 minutes
Tack-free Time	10 g, 1/4" thick @ 77°F (25°C)	PEC	20 minutes
Full Cure Time	10 g, 1/4" thick @ 77°F (25°C)	PEC	6 hours
Hardness After Full Cure	1 hour at 77°F (25°C)	ASTM D2240-91	85 Shore A
Lap Shear Strength	7 days at 77°F (25°C)	ASTM D1002-72	900 psi
Temperature Range	Continuous	PEC	-60°F (-51°C) to 250°F (121°C)

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Installation:

**Building & Construction
Maintenance & Repair**

**Manufacturing &
Assembly**

Section 1: Preparation

General Preparation for Bonding

1. For safety measures, wear gloves, eye protection, dust mask or respirator and protective clothing.
2. Use a bristle brush or 36 to 50 grit grinder to remove dirt and grease from concrete surfaces. Use a clean, dry rag to remove dirt, dust and moisture from wood, ceramic and glass surfaces. Then use moisture-free and oil-free compressed air to blow off any remaining dirt or fine dust.
3. If desired, mask off the areas surrounding the area to be bonded in case excess squeeze-out occurs.
4. Select the desired dispenser (manual or pneumatic) and the mix tip.
5. Cut the blind-end off of the cartridge orifice or remove plugs and place the cartridge in the dispenser.
6. Dispense just enough material so that both components dispense equally.
7. Assemble the mix tip onto the cartridge.
8. Lay the dispenser with the mix tip-end facing downward.

Section 2: Procedures

General Procedure for Bonding

1. Plan to allow for no more than four-minutes open time for dispensing and applying to all bonding surface areas.
2. Dispense onto both the prepared substrates. 3M™ Scotch-Weld™ Urethane Adhesive DP-604NS has the advantage that it can be applied to all surfaces including overhead surfaces without dripping or sagging.
3. Mate the door frame, door sill, window frame or panel to the substrate.
4. Typically, the Scotch-Weld adhesive DP-604NS will have sufficient strength to hold the structure in place until it is cured.

Section 3: Clean-up and Finishing

1. Remove the masking tape surrounding the bonding areas.

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Storage

This product has a shelf life of 6 months when properly stored in unopened packages at temperatures of 65° to 85°F (18° to 30°C). Do not expose to excessive cold or moisture.

Precautionary Information

Refer to Product Label and Material Safety Data Sheet (MSDS) for health and safety information before using this product. For environmental information, refer to MSDS. Always wear gloves, eye protection, appropriate respiratory protection, and work in a well-ventilated area. For additional health and safety information, call 1-800-364-3577 or (651) 737-6501.

For Additional Information

To request additional product information or to arrange for sales assistance, call toll free 1-800-362-3550 or visit www.3M.com/adhesives. Address correspondence to: 3M Industrial Adhesives and Tapes Division, Building 21-1W-10, 900 Bush Avenue, St. Paul, MN 55144-1000. Our fax number is 651-778-4244. In Canada, phone: 1-800-364-3577. In Puerto Rico, phone: 1-787-750-3000. In Mexico, phone: 52-70-04-00.

Product Use

All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. However, many factors beyond 3M's control can affect the use and performance of a 3M product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method of application.

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ISO 9002

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9002 standards.



Industrial Business
Industrial Adhesives and Tapes Division

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