



Technical Data Sheet

3M™ Fastbond™ Foam Adhesive 100NF Neutral

Product Description

3M™ Fastbond™ Foam Adhesive 100 is a one-part, water-dispersed, fast setting adhesive. This neoprene-based product bonds many porous substrates to porous or non-porous substrates with minimal dry time. Adheres to many types of flexible polyurethane foam, latex foam fabric, polyester fiberfill, wood, plywood, particleboard and many plastic and metal surfaces.

Product Features

- Water-dispersed so is non-flammable in the wet state.
- High solids for high coverage.
- One component to simplify dispensing.
- Neoprene-based for high heat resistance.
- Low pressure sprayable to reduce misting and overspray.
- Non-dimpling for soft bondlines.
- Designed to be applied between two substrates. Application to substrates that results in direct exposure of the adhesive to light may result in eventual discoloration of the exposed adhesive. Direct exposure can be controlled by proper spray application. Adhesive may soak through very thin fabrics.
- Not recommended for exterior bare metal surfaces unless metal surfaces are completely dried by force drying and protected from moisture.
- Certified to GREENGUARD® Product Emission Standard For Children and Schools(SM) for low emitting interior building materials:
° Addresses or Contributes to LEED® EQ Credit 4.1: Low Emitting Materials: Adhesive and Sealants

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 Physical Properties

Property	Values	Additional Information
Solids Content by Weight	45 to 49 %	
Color	White (semi-transparent when dry)	
Flash Point	None °F	View
Notes: Setaflash® closed cup tester		
Coverage	1000 sq ft/gal	View
Notes: 2 grms/sq ft dry wt		
Viscosity	10 to 40 cP	View

Notes: Brookfield RVF #1 sp @ 20 rpm

pH	8.4 to 9
Base Polymer	Polychloroprene (neoprene)
Bonding Range	20 min

Typical Uncured Physical Properties

Property	Values	Additional Information
Density	9 to 9.4 lb/gal	

Typical Mixed Physical Properties

Property	Values	Additional Information
Time to Handling Strength	15 s	View

Notes: Min time between bond creation and ability to support a 5 psi tensile load. Open and set times determined by RT environment. Higher temps will lengthen open and set times, while lower temperatures will shorten open time and set time.

Typical Performance Characteristics

Property	Values	Additional Information
180° Peel Adhesion	32 oz/in	View

Temp C: 25C
Temp F: 77F
Environmental Condition: 50%RH
Substrate: ABS

Notes: Peel bonds of cotton duck (canvas) to various substrates were tested at a peel angle of 180 degrees at 2in/min separation rate @ 77°F (25°C). Average force required to peel the canvas from the substrates in lbs/in of bond width (PIW).

180° Peel Adhesion	24 oz/in	View
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Temp C: 25C
Temp F: 77F
Environmental Condition: 50%RH
Substrate: High Density Polyethylene (HDPE)


Notes: Peel bonds of cotton duck (canvas) to various substrates were tested at a peel angle of 180 degrees at 2in/min separation rate @ 77°F (25°C). Average force required to peel the canvas from the substrates in lbs/in of bond width (PIW).


180° Peel Adhesion	14 oz/in	View
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Temp C: 25C
Temp F: 77F


Environmental Condition: 50%RH
Substrate: Polypropylene (PP)

Notes: Peel bonds of cotton duck (canvas) to various substrates were tested at a peel angle of 180 degrees at 2in/min separation rate @ 77°F (25°C). Average force required to peel the canvas from the substrates in lbs/in of bond width (PIW).

180° Peel Adhesion	30 oz/in	View 
<p>Temp C: 25C Temp F: 77F Environmental Condition: 50%RH Substrate: Polyvinyl chloride (PVC)</p> <p>Notes: Peel bonds of cotton duck (canvas) to various substrates were tested at a peel angle of 180 degrees at 2in/min separation rate @ 77°F (25°C). Average force required to peel the canvas from the substrates in lbs/in of bond width (PIW).</p>		

180° Peel Adhesion	18 oz/in	View 
<p>Temp C: 25C Temp F: 77F Environmental Condition: 50%RH Substrate: Aluminum</p> <p>Notes: Peel bonds of cotton duck (canvas) to various substrates were tested at a peel angle of 180 degrees at 2in/min separation rate @ 77°F (25°C). Average force required to peel the canvas from the substrates in lbs/in of bond width (PIW).</p>		

180° Peel Adhesion	18 oz/in	View 
<p>Temp C: 25C Temp F: 77F Environmental Condition: 50%RH Substrate: Galvanized Steel</p> <p>Notes: Peel bonds of cotton duck (canvas) to various substrates were tested at a peel angle of 180 degrees at 2in/min separation rate @ 77°F (25°C). Average force required to peel the canvas from the substrates in lbs/in of bond width (PIW).</p>		

180° Peel Adhesion	18 oz/in	View 
<p>Temp C: 25C Temp F: 77F Environmental Condition: 50%RH Substrate: Cold Rolled Steel</p> <p>Notes: Peel bonds of cotton duck (canvas) to various substrates were tested at a peel angle of 180 degrees at 2in/min separation rate @ 77°F (25°C). Average force required to peel the canvas from the substrates in lbs/in of bond width (PIW).</p>		

Typical Environmental Performance

After air drying 24 hours, 4-inch cube knife edge foam bonds made with 3M™ Fastbond™ Foam Adhesive 100 on 1.2 lb./cu. ft. density urethane foam specimens withstood operating temperatures at 230°F (110°C) for 24 hours without showing any signs of failure along the bonded seams. The adhesive exhibited no indication of attacking or deteriorating the foam and the bondlines remained strong and flexible.

Storage and Shelf Life

Best storage temperature is 40-90°F (5-32°C). Higher temperatures reduce normal storage life. Lower temperatures cause increased viscosity of a temporary nature. This water-dispersed adhesive will become unusable with prolonged storage below 40°F (4°C). Rotate stock on a “first in, first out” basis. Protect from freezing.

When stored at the recommended temperature in the original, unopened container, this product has a shelf life of 18 months from date of manufacture.

Automotive Disclaimer

Automotive Applications: This product is an industrial product and has not been designed or tested for use in certain automotive applications, including, but not limited to, automotive electric powertrain battery or high voltage applications. This product does not fully adhere to typical automotive design or quality system requirements, such as IATF 16949 or VDA 6.3. This product may not be manufactured in an IATF certified facility and may not meet a Ppk of 1.33 for all properties. The product may not undergo an automotive production part approval process (PPAP).

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Bottom Matter

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Handling/Application Information

Application Equipment

Note: Appropriate application equipment can enhance adhesive performance. We suggest the following application equipment for the user's evaluation in light of the user's particular purpose and method of application.

*Systems other than those listed can be used with 3M™ Fastbond™ Foam Adhesive 100. Existing spray equipment can also be adapted. Fluid hoses used previously with solvent-based adhesive or cleaning compounds must be replaced with new hose. Be sure to follow the equipment manufacturer's precautions, directions for use, and recommendations for such equipment. For additional information, contact your local representative.

**Starting air pressure on regulator. Adjust up or down based on application requirements.

*** Also available are 2 piece fluid tips as replacements fluid tips. These 2 piece tips allow for easier cleaning with less chance of adhesive contamination of the air passages in the spray gun.

Pressure Pots

Stainless steel pressure pots recommended. Non-stainless may be used with plastic liners if dip tube and fittings are changed to plastic or stainless steel.

Pumping Equipment

1 inch plastic diaphragm pump with PTFE checks and diaphragms. All pumps should be short stroked for pump longevity. For additional information, contact your local representative.

Filter (pump output)

Graco model 12 (stainless steel) with filter bag #521-264 or equivalent.

Hoses

All fluid hoses should be nylon or polyester lined. Hose fittings should be stainless steel or plastic. The typical fluid hose length @ 1/4 inch i.d. should be 15 to 25 ft. Use of larger fluid hose i.d. or lengths less than 15 ft. will result in loss of fluid pressure control. Use of smaller fluid hose I.D. lengths greater than 25 ft. can result in product coagulation in the line.

Note: Do not use fluid lines that have been previously used with solvent. Do not use air operated piston pumps with these products.

Directions for Use

Note: When using 3M™ Fastbond™ Foam Adhesive 100, it is required that at least one of each pair of substrates to be bonded be porous or water permeable.

1. Surface Preparation: Use only on clean, dry surfaces. Contamination of surfaces with oil, grease or release agents will prevent good, strong bonds.
2. Application: Adhesive does not require agitation before use. Adjust the spray equipment to give a fine, mist-like spray pattern. Spray a uniform, light coat of adhesive to both surfaces holding spray applicator 10-15 inches from surface.
3. Coverage: Coverage will depend on foam density, surface porosity of substrates, and strength of adhesive bond required. Typically one gallon of adhesive will cover up to 1000 square feet of substrate surface at a coating weight of approximately 2 dry grams of adhesive/sqft In all cases, user evaluation will be required to determine the optimum coverage levels.

Note: Application of adhesive at coating weights above 2 dry grams/sqft or using a coarse spray pattern may result in longer activation times.

4. Activation Time: The adhesive activates sufficiently to permit making foam/foam bonds within 15 seconds after application. Bonds of foam or fabric to smooth, nonporous surfaces such as plastic or metal will require longer activation times. Bonds may be made up to 20 minutes after application depending on ambient temperature and humidity conditions. See Note above.
5. Assembly and bonding: For foam bonding and foam fabrication, pressure sufficient to compress the foam should be applied to the bond line by manual or mechanical methods. Bond the adhesive coated surfaces with sufficient pressure to ensure good contact across the entire adhesive bond line.
6. Cleanup: Wet adhesive may be removed with water containing a small amount of detergent.* Dry adhesive may be removed with a combination of 3M™ Citrus Base Cleaner or equivalent and mechanical systems such as wire brushing. Dry adhesive cannot be removed from porous surfaces such as foams or fabrics. Flush the adhesive wetted surfaces of spray equipment with water containing a small amount of detergent.* Follow with a flush of clean water.

*Cleaning Solution: One pint of detergent to five gallons of water.

**Note: When using solvents, extinguish all ignition sources, including pilot lights, 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/b40069460/
Safety Data Sheet SDS	https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=100NF Neutral

Family Group

Link Tags:

- 100NF Neutral
- 100NF Lavender

Products	Solids Content by Weight	Color
100NF Neutral	45 to 49 %	White (semi-transparent when dry)
100NF Lavender	N/A	N/A

ISO Statement

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001 standards.

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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