SNAPSHOOT
ENGINEERED FOR A SAFER TOMORROW

현장을 이해하고, 필요한 솔루션을 연결합니다.

산업안전 · 추락방지 시스템
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제품 제안부터 공급·시공·설치·교육까지



COMPANY INFORMATION

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TECHNICAL DOCUMENTS

인증서 · 데이터시트 · 기술자료

제품의 규격과 성능, 인증 및 적용 조건을 확인하기 위한 자료입니다.

ABOUT SNAPSHOOT

제품 공급을 넘어, 현장에 맞는 해결책으로

스냅슛은 산업현장의 작업 환경과 요구 조건을 바탕으로
적합한 제품과 시스템을 제안합니다. 현장 실사를 통해 설치 조건을 확인하고,
공급부터 시공·설치 및 사용 교육까지 필요한 과정을 함께합니다.

추락방지 시스템

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전신형 안전대 · 랜야드 · 안전블록
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English-US

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Supersedes: July, 2024

Technical Data Sheet

3M™ Fastbond™ Contact Adhesive 2000-NF

Product Details

Regulatory Info/SDS

Product Description

3M™ Fastbond™ Contact Adhesive 2000-NF with Spray Activator #1 is a waterdispersed, high solid, activated adhesive which provides immediate bonding capabilities and handling strength without forced drying equipment for most applications.

Product Features

• Immediate bonding without heat.
• Immediate handling strength.
• Bonds flexible polyurethane and latex foams, plastic laminate, wood, plywood, particle board, fabrics, fiber, aluminum, galvanized steel and many plastics.
• Post-formable and heat resistant.
• Co-sprayed with plural component, external mix spray systems – no premixing, no limited pot life.
• Available in blue, light orange or neutral color.
• Not recommended for bonding bare steel surfaces (unless force dried and protected from moisture). Primed or painted steel surfaces must be thoroughly tested for corrosion and compatibility with Fastbond contact adhesive 2000-NF with spray activator #1 before use.
• 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.
• 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
° Addresses or Contributes to LEED® EQ Credit 4.3: Low Emitting Materials: Flooring Materials
° Addresses or Contributes to LEED® EQ Credit 4.4: Low Emitting Materials: Composite Wood and Agrifiber Products
° Addresses or Contributes to LEED® EQ Credit 4.5: Low Emitting Materials: Furniture and Furnishings
° Addresses or Contributes to LEED® EQ Credit 4.6: Low Emitting Materials: Ceiling and Wall Systems

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
Base	Polychloroprene
Net Weight	1.06 — 1.11 kg/L (8.9 — 9.3 lb/gal)

Typical Physical Properties

Attribute Name	Temperature	Value
Color		Blue, Light Orange or Neutral
Solids Content by Weight		47 — 51 %
pH		10 — 11
Coverage		17 m²/L ((including activator) 690 ft²/gal) [1]
Viscosity	27 °C (80 °F)	200 — 750 cP [2]

[1] @ 32 g/m² (3 g/ft²) dry

[2] Brookfield Viscometer RVF #2 spindle @ 20 rpm

Attribute Name	Value
*Note	When bonding wood veneers, success is dependent on many variables such as environmental conditions, bonding process, type of base material, type of veneer, adhesive type and top coat finishing systems to name a few. For unbacked wood veneers, water based contact adhesives are not recommended. It is the user's responsibility to thoroughly test any adhesive for its suitability in bonding wood veneers. It is also recommended to follow the veneer manufacturers recommendation and industry guidelines.

Typical Performance Characteristics

Overlap Shear Strength

Substrate: Birch to Birch
Temperature: 23 °C (73 °F)
Dwell Time: 3 week
Test Method: ASTM D1002, ISO 4587

Test Condition	Value
-34 °C (-30 °F)	690 N/cm² (1000 lb/in²) [1]
	240 N/cm² (350 lb/in²) [1]
82°C (180 °F)	35 N/cm² (50 lb/in²) [1]
93 °C (200 °F)	28 N/cm² (40 lb/in²) [1]
107 °C (225 °F)	21 N/cm² (30 lb/in²) [1]

[1] Adhesive co-spray applied and bonded immediately with nip roll pressure. Bonds tested at a separation rate of 5.1 mm/min (0.2 in/min) 3.2 mm (1/8 in) substrates

Flatwise Tensile Strength

Dwell Time: 3 week
Test Method: C297

Temperature	Value
23 °C (73 °F)	58 N/cm² (84 lb/in²) [1]
82 °C (108 °F)	17 N/cm² (25 lb/in²) [1]
93 °C (200 °F)	17 N/cm² (25 lb/in²) [1]
107 °C (225 °F)	17 N/cm² (25 lb/in²) [1]

[1] High pressure laminate/particle board. Test speed = 1.3 mm/min (0.05 in/min).

Handling/Application Information

Directions for Use

When using 3MTM Fastbond™ Contact Adhesive 2000-NF with Spray Activator #1, itis required that at least one of each pair of substrates to be bonded be porous or water permeable.
Surface Preparation
Surfaces must be clean, dry and dust free.
Spray Mix Ratio of Activator to Adhesive
It is recommended that Fastbond contact adhesive 2000-NF be spray mixed with spray activator #1 at a ratio of 15 parts adhesive to 1 part activator (by weight or volume). When activated, slight adhesive transfer should occur when adhesive film is
touched immediately after spraying.
Application
Use a plural nozzle, external mix spray applicator to mix adhesive with activator to achieve proper mix of Fastbond contact adhesive 2000-NF with spray activator #1. (Refer to Application Equipment Suggestions above for additional information about spray equipment.) Spray apply a uniform coat of mixed adhesive to both surfaces. (See coverage section.) One coat should usually be sufficient for both surfaces. Be sure to overlap the spray pattern slightly with each pass of the spray applicator to ensure complete activation of adhesive and uniform coverage.
A uniform dull film indicates sufficient mixture of Fastbond contact adhesive 2000-NF with spray activator #1.
Coverage
Approximately 690 sqft/gal. sufficient to apply 345 sqft of bonded surface on most substrates such as decorative laminate and particle board. Optimum performance is obtained using 2.5-3.5 grams/sqft dry adhesive on each surface.
Note: Coverage will vary depending on the porosity of substrates and strength of adhesive bond desired. For decorative laminate to particle board, optimum performance is obtained at 2.5-3.5 grams of dry adhesive per square foot applied to each surface. Depending on the user's performance requirements, less adhesive is suggested if fabrics, foams, etc. are to be bonded. In all cases, user's evaluation will be required to determine the optimum coverage levels.
Activation Time
With proper mixing of adhesive and activator and depending on ambient conditions, adhesive activates sufficiently to make bonds within 5-15 seconds after application. Depending on ambient conditions and substrates, bonds should be made within (2) hours. While bonds may be made immediately, the optimum initial strength will be obtained by allowing the adhesive to dry the same amount of time as the previous adhesive (solvent) type.
Assembly
For foam bonding and foam fabrication, pressure may be applied to the bond by manual or mechanical methods. Bond adhesive coated surfaces with sufficient pressure to assure good contact across adhesive bond line. For decorative laminates, spacers such as dowels or strips of laminate may be used to help prevent premature adhesive/adhesive contact and bonding prior to positioning. Slide out the spacers and apply uniform pressure working toward the edges. A 3 inch roller used with maximum body pressure should be used to help ensure adequate contact and bonding especially on the edges. Bonded assemblies may be machined, trimmed, etc. immediately after bonding. The use of a pinch roll is preferred for optimum performance.
Cleanup
Work Surface: If adhesive has not activated, clean surfaces with water or with a small amount of liquid detergent followed with a cleaner such as 3M™ Citrus Base Cleaner or equivalent. Dried, activated adhesive may be cleaned with a combination
of cleaner and mechanical systems such as wire brushing.
Spray Equipment: Flush adhesive portion of spray equipment with cold water containing a small amount of detergent* followed by a flush with clean water. The activator portion of spray equipment should be flushed with clean water (no detergent).
*Cleaning Solution: One pint of detergent to five gallons of water.

Application Techniques

Co-Spray (Adhesive to Activator ratio of 15:1)

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.

Air Atomizing Spray Equipment:
When hand spraying, plural component (co-spray) applicators are used. These applicators spray activator and adhesive through separate fluid nozzles with mixing occurring outside the spray applicator.
For automatic spray systems, separate spray applicators are used for the activator and adhesive, with the applicators aimed so the spray patterns converge and mix together before reaching the substrate.
Note: Premixing of the adhesive and activator prior to spraying is NOT possible and makes the adhesive unusable.

Hand Held Spray Applicators	Air Cap	Fluid Nozzle	Atomizing Air Pressure	Approximate Air Requirement
Binks Mach 1PC H.V.L.P.	91 PC	94F (.055")	15-30 psi	6 scfm @ 15 psi
Graco Optimizer 2K H.V.L.P.	188-754	185-702 (.055")	25-35 psi	6 scfm @ 15 psi
Mattson Cross-Fire H.V.L.P.	81270	82017 (.050")	15-30 psi	6 scfm @ 15 psi
DeVilbiss Pro Bond 2K	28L	FF (.055")	25-35 psi	6 scfm @ 15 psi

Automatic Spray Applicators	Air Cap	Fluid Nozzle	Atomizing Air Pressure	Approximate Air Requirement
Binks Mach 1PC H.V.L.P.	91 PC	94F (.055")	15-30 psi	6 scfm @ 15 psi
Binks Mach 1A H.V.L.P. (Adhesive)	91 P	94F (.055")	15-30 psi	11 scfm @ 30 psi
Binks Mach 1A H.V.L.P. (Activator)	91 P	90F (.030")	15-30 psi	11 scfm @ 30 psi
Binks 21, 61, 95A (Adhesive)	66SD-3	65SS (.059")	15-30 psi	6 scfm @ 15 psi
Binks 21, 61, 95A (Activator)	66S	63SS (.028")	10-15 psi	3.4 scfm @ 30 psi
DeVilbiss AGX (Adhesive)	30	FF (.055")	15-30 psi	6 scfm @ 20 psi
DeVilbiss AGX (Activator)	30	G (.028")	10-15 psi	6 scfm @ 20 psi
DeVilbiss AGXV H.V.L.P. (Adhesive)	33A	FF (.055")	15-30 psi	12 scfm @ 30 psi
DeVilbiss AGXV H.V.L.P. (Activator)	33A	G (.028")	10-15 psi	6 scfm @ 20 psi

TO MEASURE FLUID FLOW
Hand Held Applicators: Pressurize adhesive source only. Direct adhesive fluid nozzle into a measuring device. Pull trigger and flow material into measuring device for 60 seconds. Increase or decrease fluid source pressure to obtain desired fluid flow. The fluid flow of the activator should be adjusted to 15 to 1 ratio when co-sprayed. The measurement can be done by either weight or volume.
Automatic Applicators: Pressurize adhesive fluid source only. Activate trigger and flow adhesive into measuring device for 60 seconds. Increase or decrease fluid pressure to obtain desired fluid flow. When adhesive fluid flow is correctly adjusted repeat the process with the activator spray applicator, setting fluid flow to one-fifteenth of the adhesive fluid flow. The measurement can be done by either weight or volume.

Material Supply:
Pressure Pots
Adhesive and Activator: For best results, use stainless steel pressure pots. Nonstainless pressure pots may be used if used with plastic liner and the dip tube and fittings are changed to plastic or stainless steel.

Pumps
Adhesive: Use a 1 inch plastic bodied, double diaphragm pump with PTFE diaphragms and ball checks. It is suggested that all diaphragm pumps are short stroked by the manufacturer before use. Do not use piston type reciprocating

pumps, or diaphragm pumps smaller than 1 inch. When using diaphragm pumps the use of a bag type fluid filter is recommended on the output of the pump. A filter such as the Graco Model 12 part number 915-518 with a 300 micron filter bag part number 521-264 or equivalent is suggested.
Fluid regulators cannot be used with this adhesive. Fluid pressure is controlled by the pump pressure.

Activator:A 1:1 or 2:1 pogo or piston type reciprocating pump is suggested. All pump parts in contact with activator must be plastic or stainless steel. Diaphragm pumps and fluid regulators can be used (stainless steel or plastic on all wetted components).

Hoses
All fluid hoses should be nylon or polyethylene lined. Hose fittings should be stainless steel or plastic.
Note: Do not use fluid lines that have previously been used with solvent whether flammable or nonflammable.

Industry Specifications

Certified to GREENGUARD® Product Emission Standard For Children and Schools(SM) for low emitting interior building materials:
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Storage and Shelf Life

Store under normal conditions of 16° to 27°C (60° to 80°F) and 40 to 60% relative humidity in the original, unopened packaging, out of direct sunlight. Lower temperatures cause increased viscosity of a temporary nature. Product will become unusable with prolonged storage under 4°C (40°F). Protect from freezing. For best performance, use this product within 21 months from date of manufacture.

Precautionary Information

Refer to Product Label and Material Safety Data Sheet for health and safety information before using this product. For additional health and safety information, call 1-800-364-3577

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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ISO Statement

This product was manufactured under a 3M quality system registered to ISO 9001 standards.

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