



# Fast Tack Water Based Adhesive 1000NF

## Product Data Sheet

Date: September 2017

Supersedes: April 2014

### Product Description

3M™ Fast Tack Water Based Adhesive 1000NF is a high performance water-based one part adhesive formulated for fast bonding. Adheres to many types of flexible foam, latex foams, fabric, polyester fibrefill, wood, plywood, particleboard and many types of plastic and metal surfaces.

### Key Features

- Fast bonding. Depending on substrates handling strength bonds can be made without complete drying
- Repositionable whilst adhesive is wet and aggressively tacky
- Long term stable bonds, good heat resistance.
- Bonds most foamed materials, plastic laminates, wood, plywood and canvas to themselves and to each other.
- Performs best when at least one surface is porous.
- Contains no polychloroprene
- Not flammable in the wet state
- Acrylic based

### Typical Uncured Properties

	3M™ Fast Tack Water Based Adhesive 1000NF	
Base Resin	Acrylic emulsion	
Solids content- bulk (% by weight)	46 - 51	
Colours	Neutral, Purple	
Viscosity (cps) Brookfield RVF # 3 spindle, 30 rpm, room temperature	400 - 1100	
Density (g/cc)	0.80 - 0.90	
pH	4.5- 6.0	
Coverage (single surface, approx)	Light (dry 0.09 gsm)	44.2 sqm/litre
	Typical (dry 0.23 gsm)	17.7 sqm/litre
	Heavy (dry 0.37 gsm)	11.0 sqm/litre
Bonding range (Min)	1-10	
Shear adhesion failure test (SAFT*) (°C)	>149 (no failure at above temperature)	

\*SAFT Test, birch plywood, 25 mm<sup>2</sup> overlap, 100 grams (1.52 KPa), temperature of 32 °C and ramped up 10 °C every 10 minutes

## Special Note

3M™ Fast Tack Water Based Adhesive 1000NF is intended for use in a wide variety of applications. Coverage and application procedure will vary for each use. User should test for suitability with their process and performance requirements.

In general, key considerations when using 3M™ Fast Tack Water Based Adhesive 1000NF are:

- Ensure adequate adhesive is applied over the entire area to be bonded. This may mean an additional application of adhesive.
- Bonds should be made when the adhesive feels aggressively tacky.
- Apply sufficient pressure to ensure good contact between the surfaces.

## Application Equipment

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

### Air Atomizing Spray Equipment

Equipment Type	Equipment Example	Air Cap	Atomizing Air Pressure	Fluid Tip	Fluid Pressure
Pressure Fed Hand Held Spray Guns	3M Accuspray HG09/HG18	Std	10 - 20 psi	Std	N/A Gravity Fed
	Binks 95 or 2001	66SD Fan	20 - 30 psi	66SS	10-20 psi
	Binks 95 or 2001	66R Cone	20 - 30 psi	66SS	10-20 psi

3M Accuspray trial settings are 1/2 turn anti-clockwise on fan knob (top) and 4 turns anti-clockwise on fluid knob (bottom)

\*Systems other than those listed can be used with 3M™ Fast Tack Water Based Adhesive 1000NF. 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.

### 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

3.8 cm inner diameter (minimum) 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 (output)

Typically, 30# mesh is suitable: for example, 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 at 6 mm should be 5 to 8 m. Use of larger fluid hose or lengths less than 5 m. will result in loss of fluid pressure control. Use of smaller fluid hose or lengths greater than 8 m can result in product coagulation in the line.

**Note:** New fluid lines are recommended due to potential incompatibility with other adhesives. Use only plastic and stainless steel fittings in contact with adhesive. Adhesive is incompatible with steel, galvanized steel, and cast aluminum parts.

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**Handling/Application  
Instructions:**

**Directions for Use:**

Bonds can be made by applying 3M™ Fast Tack Water Based Adhesive 1000NF to one or both surfaces to be bonded. For maximum strength, apply to both substrates. For lighter duty uses, application to only one surface may be acceptable. Single surface application may require heavier coverage and longer dry time. User should evaluate the adhesive to determine which method(s) is suitable for their use. Bonds to porous substrates can generally be made without significant drying, typically < 30 seconds depending on environmental factors and adhesive coverage. Non-porous substrates need to dry until tacky to touch.

**All applications benefit from attention to:**

**Surface Preparation:** Use only on clean, dry surfaces. Contamination of surfaces with oil, grease or release agents will prevent good, strong bonds.

**Application:** Adhesive does not require agitation before use. Adhesive can be brushed, rolled or spray applied. The quickest bonds can be made through spray application. Adjust the spray equipment to give a fine, mist-like spray pattern. Spray a uniform, light coat of adhesive to one or both surfaces holding spray applicator 25 - 40 centimeters from surface.

**Coverage:** Coverage will depend on the surface porosity of substrates, and strength of adhesive bond required. In all cases, user evaluation will be required to determine the optimum coverage levels.

**Note:** Application of adhesive at high coating weights or using a coarse spray pattern may result in longer activation times.

**Activation Time:** The adhesive may activate sufficiently to permit making bonds within 30 seconds after application when bonding porous substrates. Bonds such as foam or fabric to smooth, nonporous surfaces such as plastic or metal will require longer activation times. In general, bonds should be made when the adhesive coating feels aggressively tacky. This time is dependent on the amount of adhesive applied. Bonds may be made up to 1 - 10 minutes after application depending on ambient temperature and humidity conditions. See Note above.

**Assembly and Bonding:** Pressure sufficient to assure the substrates make contact should be applied to the bond line by manual or mechanical methods.

**Cleanup:** Wet adhesive may be removed with water containing a small amount of vinegar\* Follow with a flush of clean water. Dry adhesive may be removed with a combination of 3M™ Adhesive Remover Low VOC < 20 % or 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.

\*Cleaning Solution: One part vinegar to five parts water.

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

Not recommended for use on bare metal surfaces unless metal surfaces are completely dried by forced drying and protected from moisture.

Bonds to plasticised e.g. flexible polyvinylchloride (PVC) should be fully assessed. Example test method involves accelerated ageing for seven days at seventy degrees Celsius.

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### Storage & Shelf Life

Best storage temperature is 15 °C – 27 °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 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 after production.

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### Precautionary Information

Refer to product and Material Safety Data Sheet for health and safety information before using the product. For information please see below for contact details.

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### For Additional Information

To request additional product information or to arrange for sales assistance, please see below for contact details.

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### Important Notice

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 or application. All questions of liability relating to this product are governed by the terms of the sale subject, where applicable, to the prevailing law

Values presented have been determined by standard test methods and are average values not to be used for specification purposes. Our recommendations on the use of our products are based on tests believed to be reliable but we would ask that you conduct your own tests to determine their suitability for your applications. This is because 3M cannot accept any responsibility or liability direct or consequential for loss or damage caused as a result of our recommendations

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