



Scotch-Weld™ Adhesive 2000-NF with Spray Activator

Product Data Sheet

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Product Description

Scotch-Weld™ 2000-NF Adhesive with Spray Activator is a water-dispersed, high solids, activated adhesive, which provides immediate bonding capabilities and handling strength without forced drying equipment.

Scotch-Weld™ 2000NF bonds to a wide variety of substrates.

Key Features

- Immediate bonding without heat.
- Immediate handling strength.
- Bonds flexible polyurethane and latex foams, plastic laminate, wood, plywood, aluminium, protected metals, particleboard, fabrics, fibre, and many plastics.
- Post-formable.
- Co-sprayed with two component, external mix spray systems (no premixing, no limited pot life).

Note:

- Not recommended for bonding bare steel surfaces (unless force dried and protected from moisture).
- Primed or painted steel surfaces must be tested thoroughly for corrosion and compatibility with Scotch-Weld™ 2000NF adhesive with spray activator 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.

Application Ideas

- Laminating applications such as kitchen and office counter-tops, doors, partitions and insulation panels.

Special 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 Physical Properties

	2000-NF Adhesive	Spray Activator
Viscosity (ISO2555)	172 mPa.s	Water thin
Solid Content (EN 3251 /EN ISO 827)	50%	13 - 16%
Specific Gravity (ASTM D 1475-98 NF EN ISO 2811.1)	1.08	1.12 - 1.16
Base	Polychloroprene	Inorganic Salt
Colour	Blue and Neutral	Clear
Coverage at 20 g/m ² dry weight *	25 m ² / litre (including activator)	
Application Method	Co-Spray	Co-Spray
Co-Spray Ratio	15 parts	1 part
pH	10 – 11	4 – 5.6

* For HPL applications coverage at 15g/m² dry weight or 30m²/l.

Typical Adhesive Performance Characteristics

Substrate	Shear Stress at Maximum Load (MPa) ASTM D3163	Failure Mode
Natural Oak	0.68	Adhesive
PVC	2.2	Adhesive / Cohesive
HDPE	0.97	Adhesive
PP	1.6	Adhesive / Cohesive
PET	1.84	Adhesive / Cohesive

Application Equipment Suggestions

Appropriate application equipment enhances 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, 2 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 applicators are used for the activator and adhesive, with the applicators aimed so the spray patterns converge and mix before reaching the substrate.

Note:

Premixing of the adhesive and activator is NOT possible and makes the adhesive unusable.

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. The pump pressure controls fluid pressure.

Activator: A 1:1, 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 non-flammable.

Handling/Application Information

When using Scotch-Weld™ 2000-NF Adhesive with Activator, it is required that at least one of each pair of the 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 Scotch-Weld™ 2000-NF Adhesive 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 Scotch-Weld™ 2000-NF Adhesive with spray activator.

(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.

An uniform dull film indicates sufficient mixture of Scotch-Weld™ 2000-NF Adhesive with spray activator.

Coverage

Approximately 30 m²/l sufficient to apply 15m² of bonded surface on most substrates such as decorative laminate and particleboard. Optimum performance is obtained using 15-20 g/m² dry adhesive on each surface.

NOTE:

Coverage will vary depending on the porosity of substrates and strength of adhesive bond desired.

Depending on the user's performance requirements, more adhesive is suggested if fabrics, foams, etc. are to be bonded. In all cases, user 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.

Coverage

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 to adhesive contact and bonding prior to positioning. Slide out the spacers and apply uniform pressure working toward the edges. A 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.

Clean Up

Work Surface:

If adhesive has not activated, clean surfaces with water or with a small amount of detergent followed with a cleaner such as 3M Citrus Based Cleaner or equivalent. Dried, activated adhesive may be cleaned with a combination of 3M Citrus Based 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).

Storage & Shelf Life

Store at 15 °C – 25 °C for maximum storage life. Higher temperatures reduce normal storage life. Lower temperatures cause increased viscosity of a temporary nature
Water dispersed products will become unusable with prolonged storage below 4 °C.
Rotate stock on a “first in, first out” basis

The product can be stored 28 months after production in the original, unopened container

Note: PROTECT FROM FREEZING

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.

For Additional Information

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

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