

**Titebond®**  
THE PRO'S ADVANTAGE™

# 821-STEP

## WOOD FLOORING ADHESIVE

Titebond® 821-Step Adhesive, Moisture & Sound Control combines the superior properties of a moisture cure adhesive with the ability to be used as a moisture and sound control system. This high-performance formula is ideal for bonding engineered, solid plank, cork underlayment and bamboo flooring to common underlayments and subfloors. Its non-slumping characteristics allow the troweled ridges to bridge normal gaps between the wood flooring and the subfloor, virtually eliminating hollow and popping spots. This product also allows the installer to protect the wood floor with a glue down all-in-one application with unlimited moisture warranty, saving labor and time. Once cured, the product is water-resistant. It offers excellent green grab and develops a superior bond that will remain flexible for the lifetime of the floor.

Alternatively, Titebond 821-Step can be used just as a one-part adhesive simply by using a different sized trowel. Please see specific application guidelines in this document for details and instructions. It can also be combined with Titebond 531 or Titebond 531 PLUS Moisture Control Systems to achieve unlimited moisture protection. It has unparalleled green grab, strength development and spreads easily. This mold and mildew resistant formula delivers exceptional performance characteristics that exceed the expectations of professional installers.

- **UNLIMITED MOISTURE CONTROL PROTECTION**
- **EXCELLENT GREEN GRAB & STRENGTH**
- **ONE COAT APPLICATION**
- **MOISTURE, MOLD & MILDEW RESISTANT**
- **PERFORMS WELL ON BAMBOO FLOORING**

### Features and Benefits

- Non-slump formula
- Long open time
- VOC-compliant with all federal and state regulations as well as the SCAQMD
- Achieves IIC rating of 53 and STC rating of 53 for sound performance
- Will not cause dimensional changes in wood flooring
- No flash time required
- Ideal for above-, on- and below-grade installations
- Unaffected by freezing temperatures
- Contains no water
- Product is FloorScore® certified by SCS

### Specification Guide

Type of Flooring/Flooring Thickness	Jobsite/Subfloor
• All engineered flooring	• Plywood
• All parquets measuring less than 3/4" thick	• New, old or existing concrete, properly treated light weight concrete
• Solid wood flooring measuring 5/8" or less in thickness	• Below-grade concrete (adhesive method only)
• Bamboo flooring	• OSB (oriented heated strand board)
• 3/4" solid shorts (less than 24")	• Radiant heated slabs
• 5/8" plywood (2'x8' or 4'x 4')	• Clean and unwaxed vinyl/cork



SCS Certified

## PHYSICAL PROPERTIES (TYPICAL)

<b>Type:</b> Urethane	<b>Calculated VOC:</b> 77 g/L
<b>Color:</b> Brown	<b>Weight/gallon:</b> 11.76 lbs.
<b>Solids:</b> 95%	<b>Viscosity:</b> 100,000 cps
<b>Flashpoint:</b> >200°F (Pensky-Martens Closed Cup)	
<b>Freeze/Thaw stability:</b> Not affected by freezing	
<b>Storage life:</b> 1 year in tightly closed container	

## SUBFLOOR PREPARATION

All substrates must be clean, dry, structurally sound, properly cured and free of dirt, oil, paint, old adhesive, wax, sealers, curing agents and any material that may inhibit bonding. General scouring with 20 grit or #3 1/2 paper will remove most compounds. All loose materials must be vacuumed from the surface after scouring. The subfloor must be flat to a tolerance of 3/16" in a 10' radius. Hollow spots, popping spots and squeaks are related to unevenness in the subfloor. Grinding concrete floors is preferred over the use of filling compounds. If filling/leveling compounds are used, they must be Portland cement based and have a compressive strength equal to or greater than 3000 psi when cured. Moisture level in concrete subfloor will fluctuate. Any cementitious material used must be rated for the highest moisture content possible. Consult the cementitious material manufacturer's application directions. Use of product over light weight concrete and all gypsum based materials requires the use of Titebond Concrete Primer or equivalent prior to application of adhesive.

## MOISTURE CONTENT LIMITATIONS

Titebond 821-Step may be used as an adhesive and moisture control system for concrete slabs with elevated moisture levels. Calcium chloride or in-situ RH testing is NOT necessary. To ensure a proper bond and full moisture control, it is essential that the concrete be dry to the touch and fully cured before installation. For flooring adhesive only application method, concrete subfloor moisture cannot be greater than 3 lbs./1000 sq.ft./24 hours on a Calcium Chloride Test or greater than a reading of 4.5 on a Traxem Concrete Moisture Encounter or 75% relative humidity per an in-situ probe test.

## INSTALLATION: ONE-STEP ADHESIVE, MOISTURE AND SOUND CONTROL METHOD

When using this method, follow all previous instructions for subfloor preparations. Be sure to obtain the correct trowel. Trowel product with the correct trowel and immediately install the wood flooring into the wet adhesive. To reduce slippage, secure the first two starter rows with starting blocks fastened to the substrate or wedges against starting wall. Remaining planks must be placed firmly into adhesive. Planks that are not flat should be weighted for several hours. 100% adhesive coverage, with no voids, is required to qualify for the all-in-one installation warranty. Open time depends on relative humidity and is usually around 90 minutes. Be sure to seat the flooring into the adhesive firmly. Any low or high spots may cause voids in the adhesive and void the warranty. Roll the floor with a 150 lb. roller within 30 minutes of application to assist in creating a continuous layer to ensure total coverage and protection for moisture control.

## INSTALLATION: ADHESIVE ONLY METHOD

It is recommended that the adhesive be allowed to flash for 30 minutes prior to installing the wood flooring. To reduce slippage, secure the first row using Titebond Wood Flooring Tape. NOTE: Do not walk on the floor during the installation. You should not work on top of the wood. Normally, ultimate strength will be reached in 24-48 hours. Wait at least 2 days before finishing an unfinished floor. Titebond 821-Step can be used in conjunction with Titebond 531 Plus Moisture Control System for an installation with NO MOISTURE LIMITATIONS.

**VISIT [WWW.TITEBOND.COM](http://WWW.TITEBOND.COM) FOR THE MOST UP-TO-DATE PRODUCT INFORMATION.**

## APPLICATION GUIDELINES

### ADHESIVE, MOISTURE & SOUND CONTROL INSTALLATION:

#### All engineered plank flooring

- Trowel Size - 1/4" x 3/16" V-notch (saw tooth)
- Coverage - Approximately 35 sq. ft. per gallon



#### Solid flooring and bamboo up to 5/8"

- Trowel Size - 1/4" x 1/4" V-notch (saw tooth)
- Coverage - Approximately 30 sq. ft. per gallon



### ADHESIVE ONLY METHOD:

#### All parquets measuring less than 1/2" thickness

- Trowel Size - 1/8" x 1/8" x 1/8" Square-notch
- Coverage - Approximately 65 sq. ft. per gallon



#### All 3 and 5 ply engineered plank with a width of 3" or less and measuring less than 5/8" in thickness

- Trowel Size - 3/16" x 1/4" x 1/2" c-c V-notch
- Coverage - Approximately 50 sq. ft. per gallon



#### Solid flooring with a width of 3" or less and measuring 1/2" or less in thickness

- Trowel Size - 3/16" x 1/4" x 1/2" c-c V-notch
- Coverage - Approximately 50 sq. ft. per gallon



#### All 3 and 5 ply engineered plank with a width greater than 3" and measuring less than 5/8" in thickness

- Trowel Size - 3/16" x 1/4" x 1/2" c-c V-notch
- Coverage - Approximately 35 sq. ft. per gallon



#### Solid flooring with a width greater than 3" and measuring 1/2" or less in thickness

- Trowel Size - 3/16" x 3/16" x 3/16" Square notch
- Coverage - Approximately 35 sq. ft. per gallon



## CLEAN UP

Wet adhesive cleans up with mineral spirits. Follow solvent manufacturer's directions when working with solvents. NOTE: Cured adhesive is difficult or impossible to remove. For specific cleaning instructions, call Franklin Technical Service at 1.800.347.4583.

## ORDERING INFORMATION

Product Code	Size	Units Per Case	Weight	Cases Per Pallet
8319	3.5 Gallon Pail	1	45.47 lbs.	36

**DANGER.** Harmful if inhaled. Causes skin and eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. May cause respiratory irritation. May cause damage to organs (lungs) through prolonged or repeated exposure if inhaled. Wear protective gloves, and eye or face protection. In case of inadequate ventilation wear respiratory protection. Use only outdoors or in a well-ventilated area. Do not breathe vapor from heated product. Wash hands thoroughly after handling. **FIRST AID:** IF EXPOSED OR CONCERNED: Get medical attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF EXPERIENCING RESPIRATORY SYMPTOMS: Call a POISON CENTER or physician. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash clothes before reuse. IF SKIN IRRITATION OR RASH OCCURS: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove any contact lenses and continue rinsing. IF EYE IRRITATION PERSISTS: Get medical attention. Dispose of contents and container in accordance with all local, regional, national and international regulations. For additional information, refer to Safety Data Sheet.

**WARRANTY:** The full warranty for Titebond 821-Step and all Titebond flooring products can be obtained at [www.Titebond.com](http://www.Titebond.com) or by calling 1.800.347.4583.