

# Titebond® 771-STEP ADHESIVE, MOISTURE & SOUND CONTROL

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# 771-STEP

- For wood flooring installation and moisture control
- One coat application
- Rapid cure rate
- Spreads and cleans up easily
- Achieves IIC rating of 67 and STC rating of 69

## Franklin International



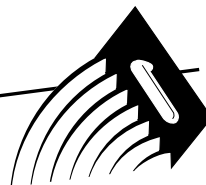
Titebond® 771-Step Adhesive, Moisture & Sound Control combines the superior properties of a moisture cure adhesive with the ability to be used as a moisture and sound control system, primarily for wood floor installations. This product enables the installer to protect the floor from subfloor moisture and glue it down in one application, saving labor and time. Once cured, the product is water resistant and is not adversely affected by exposure to moisture or water. It provides a tough, flexible, and tenacious bond to a variety of substrates. Alternatively, Titebond 771-Step can be used just as a one-part adhesive simply by using a different size trowel.

Please see specific application guidelines in this document for details and instructions.

The elastomeric characteristics allow the adhesive to move with the wood as it expands and contracts over the life of the floor. Titebond 771-Step has unparalleled green grab and strength development, spreads easily, and cleans up better than urethanes. Titebond 771-Step is most often used to secure solid wood, bamboo, cork, and engineered hardwood flooring. It can also be used to install plywood, ceramic tile, marble, and stone inlays for residential and commercial applications.

**Solutions for Flooring & Construction**

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# Why Professional Installers Prefer Titebond® 771-STEP



## All-in-One Performance

When used with a 1/4" by 3/16" saw tooth trowel or a 1/4" x 1/4" saw tooth trowel, Titebond 771-Step becomes an adhesive, moisture and sound control system in one application. When flooring is applied, the adhesive flattens out to create a moisture control film, while adhering the flooring to the subfloor. This saves time and keeps costs to a minimum.

## Rapid Cure Rate

One of the many advantages of Titebond 771-Step is its rapid cure time. Because the adhesive cures at a rate faster than other flooring adhesives, it reduces the time involved for the overall installation. As a result, floor traffic can occur more quickly than what is typically expected with other flooring adhesives.

## Trowels Easily With Outstanding Green Grab

Titebond 771-Step is a revolutionary formula that gives the professional installer a product that trowels easily - while establishing aggressive green strength. Rapid strength development gives the installer confidence that the wood flooring will not slide once seated into the wet adhesive, resulting in less use of tape and reduced cost of materials.

## Sound Testing

Titebond 771-Step is independently tested to measure the IIC (Impact Insulation Class) according to ASTM E492-04 standards and STC (Sound Transmission Class) according to ASTM E90-04 standards. It achieves an IIC rating of 67 and an STC rating of 69 when installed with a 9/16" thick engineered wood flooring over a 6" concrete subfloor with a 5/8" suspended gypsum ceiling.

## Wet Lay Method Only

Once the adhesive has been trowelled, the installer should begin laying the floor immediately. Because the adhesive was not "flashed," the result is a shorter installation time. This product should always be installed using the "wet lay" method.

## Greatly Reduces Hollow and Popping Spots

Squeaks and hollow and popping spots are related to unevenness in the subfloor. Titebond 771-Step's non-slump formula can reduce hollow and popping spots, which is often a costly problem for installers. Slumping adhesive's inability to hold a trowel ridge is the cause for many of these installation challenges. The troweled ridges of the product stand up and hold their shape, to effectively bridge normal gaps between the wood and the subfloor.

## Easy Cleanup

A typical characteristic of traditional urethane or mastic-like flooring adhesives is the difficulty of removal from the wood flooring surface. Professional flooring installers immediately notice a significant difference and improvement when cleaning Titebond 771-Step. The material cleans easily off wood and does not exhibit the smudge or drag features that installers have become accustomed to with most urethane adhesives.

## Specifically Designed for Use With Titebond Moisture Control Systems

Titebond moisture control systems offer the professional installer cost effective, convenient systems designed to reduce concrete subfloor moisture problems in flooring installations. Titebond 771-Step may be used as an adhesive in conjunction with a Titebond Moisture Control System or it can be used on it's own as an adhesive and moisture control system using the one-step application method.

## FEATURES AND BENEFITS

- For use as an adhesive, moisture and sound control system in one application
- Rapid cure rate
- Outstanding green grab
- Trowels easily
- Mold & mildew resistant
- Non-slump formula
- Fast strength development saves time
- VOC-compliant
- Easily removed with mineral spirits, dry or moist towel
- Highly moisture-resistant
- Will not cause dimensional changes in wood flooring
- Excellent bond strength
- Ideal for above, on and below-grade installations
- Unaffected by freezing temperatures
- 100% solids advanced polymer formula – No water or solvent

## GREENchoice™ flooring products

This product is part of the Titebond GREENchoice family of professional-grade adhesives. Performance without compromise and integrity to preserving the environment are at the heart of every GREENchoice adhesive. These high-performance products are formulated with environmentally superior technology for the toughest jobs. GREENchoice is backed by the same quality and support that you know and trust from Titebond.

## SPECIFICATION GUIDE FOR TITEBOND® 771-STEP

Type of Flooring/Flooring Thickness	Jobsite /Subfloor
<ul style="list-style-type: none"> <li>• Engineered flooring (5/8" or less)</li> <li>• 3/4" solid shorts (less than 24")</li> <li>• Engineered parquet</li> <li>• Solid parquet (up to 3/4")</li> <li>• 3/4" plywood (4' x 4')</li> <li>• Solid strip and bamboo (5/8" or less)</li> </ul>	<ul style="list-style-type: none"> <li>• New, old or existing concrete, properly treated light weight concrete</li> <li>• Below-grade concrete (below-grade installations are excluded from subfloor moisture warranty) (excludes solid products)</li> <li>• Plywood</li> <li>• OSB (Oriented Strand Board)</li> <li>• Radiant heated slabs (See "Subfloor Preparation")</li> <li>• Clean and unwaxed vinyl</li> <li>• Cork</li> </ul>



# 771-STEP

## How To Get The Best Results Using Titebond® 771-STEP

### HELPFUL HINTS

#### Limitations

- This product cures very quickly!
- Open time is 30-45 minutes depending on temperature and humidity
- Do not install solid wood below-grade
- Do not use on concrete with curing agents or sealers (except for recommended Titebond or Franklin products)
- Avoid allowing adhesive to cure on wood flooring surface
- Do not allow foot traffic for 4 hours after installation
- Do not use as a leveler

#### Concrete Moisture Vapor Limits

- To ensure protection against subfloor moisture, 100% substrate coverage and adhesive transfer is required.
- Adhesive, moisture and sound control application:  $\leq 15 \text{ lbs}/1000 \text{ ft.}^2/24 \text{ hrs.}$  ( $\leq 85\% \text{ RH}$ )
- Adhesive only application:  $\leq 3 \text{ lbs}/1000 \text{ ft.}^2/24 \text{ hrs.}$  ( $\leq 75\% \text{ RH}$ )
- Installations in dry or cool environments or over dry subfloors will take longer to cure

#### Storage/Shelf Life

- Store in a clean, dry environment above 60°F
- Shelf life is 1 year from date of manufacture

#### Re-sealing Partial Pail

1. Scrape sides of pail (this will aid in removal of adhesive later)
2. Place plastic trash bag over unused adhesive, working out any air pockets
3. Replace lid on pail and tightly seal

#### Re-opening Partial Pail

1. Remove lid
2. Lift trash bag from top of adhesive
3. If done properly, material is ready for use

#### Gluing a Plywood Substrate Over Concrete

1. Use 5/8" CD Exposure 1 Plywood subfloor panels, 4' x 8' sheets; cut sheets into 2' x 8' or 4' x 4' sections
2. Score the back of the panels half the thickness of the panel on a 12" x 12" grid in order to relieve tension in plywood
3. Use a 1/4" x 1/4" square-notched trowel to apply adhesive to concrete
4. Lay sections in a staggered joint pattern in the adhesive, with 1/8" spacing between sheets, and 3/4" minimum expansion space at walls and all vertical obstructions
5. Add weight as necessary to ensure adhesive remains in contact with plywood as it cures
6. Allow adhesive to dry overnight before proceeding with flooring installation

### Subfloor Preparation

All substrates must be clean, dry, structurally sound, properly cured and free of dirt, oil, paint, old adhesive, wax, sealers and curing agents. General scouring with 20 grit or #3 1/2 open-coat sandpaper 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/flattening compounds are used, they must be portland based cementitious materials and have a compressive strength equal to or greater than 3000 psi when cured. Use of adhesive over light weight concrete and all gypsum based materials requires the use of an approved concrete primer prior to application of adhesive. For further information contact Franklin Technical Service at 1-800-347-4583. To use adhesive over radiant heated flooring, the radiant flooring system must be designed for all R-values of floor coverings present at the installation site. The system must run for 2 weeks prior to adhesive installation. Turn radiant heat off upon arrival on day of adhesive installation. Install floor. The next day, turn radiant heat system up slowly and never allow subfloor surface to exceed 85°F. Remove all existing base, shoe molding and door thresholds prior to continuing the installation. All door casings must be undercut with either a jamb saw or a hand saw. Use a piece of the flooring as a guide to determine the thickness needed.

### Subfloor Moisture Check

Titebond 771-Step may be used for above-, on- and below-grade applications and on all substrates listed in Specifications Guide section. All applications are susceptible to moisture and should be tested for moisture prior to installation in several locations within the installation area. When using the one-step application method for moisture control, concrete subfloor cannot exceed 15 lbs./1000 sq. ft./24 hours per a Calcium Chloride Test (ASTM F1869) or 85% relative humidity (RH) when tested with an in situ probe (ASTM F2170).

For use as an adhesive ONLY, acceptable conditions of concrete for above-, on- and below-grade applications are:

- Less than 3 lbs./1000 sq.ft./24 hours on a Calcium Chloride Test (ASTM F1869)
- Less than a reading of 4.5 on a Tramex Concrete Moisture Encounter
- Relative humidity (RH) of 75% or less when tested with an in situ probe (ASTM F2170).

Acceptable conditions of wood substrates are a moisture reading of less than 12% or be no more than 4% different from the flooring being installed when using a Tramex, Delmhorst or equivalent wood moisture meter.

If subfloor moisture conditions do not meet above guidelines at the time of flooring installation or they could exceed them at any time after installation then a Titebond Moisture Control System should be used. For more information concerning these products and moisture conditions, call Franklin Technical Service at 1-800-347-4583.

### Installation Using Titebond 771-Step as a one-step adhesive, moisture and sound control:

Follow all instructions for subfloor preparation. Trowel 771-Step with the correct trowel (see trowel recommendations) and immediately install the wood flooring into the wet adhesive. To reduce slipping, 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. Be sure to cover entire area to be installed. Remember Titebond 771-Step is a rapid cure adhesive. Open time is 30-45 minutes, depending on relative humidity. Be sure to seat the flooring into the adhesive firmly. Any low or high spots may cause voids in the adhesive preventing complete coverage and moisture control, therefore voiding 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. To ensure protection against subfloor moisture, 100% substrate coverage and adhesive transfer is required.

### Installation Using Titebond 771-Step as adhesive only (no moisture or sound control):




Follow all instructions for subfloor preparations. Titebond 771-Step must be installed using the "wet lay" method. This product cures and builds strength very quickly. Open time is approximately 30 minutes depending on humidity and temperature. Do not trowel more adhesive than can be installed within 30 minutes. Use recommended trowel for installation (see trowel recommendations). In the "wet lay" method you do not flash the adhesive; you begin laying the wood flooring immediately after troweling the adhesive. Once the adhesive has been troweled, the wood flooring may be installed immediately 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 which are not flat should be weighted for several hours. Normally, ultimate strength will be reached within 24 hours. Wait at least 1 day before finishing an unfinished floor. Do not walk on the floor during installation. NOTE: Do not trowel more adhesive than can be covered within 30 minutes. In the wet lay method, you should not work on top of the wood.



## PHYSICAL PROPERTIES (TYPICAL)

<b>Type</b> Advanced Polymer	<b>Calculated VOC</b> 0 g/L (<50 g/L during cure)
<b>Color</b> Light Tan	<b>Flashpoint</b> >200°F (Pensky-Martens Closed Cup)
<b>Solids</b> 100%	<b>Freeze/Thaw stability</b> Not affected by freezing
<b>Viscosity</b> 100,000 cps	<b>Storage life</b> 1 year in tightly closed container
<b>Weight/gallon</b> 11.2 lbs.	

## APPLICATION GUIDELINES

Moisture Control & Adhesive Method:	Trowel Size	Coverage
• All engineered plank flooring	1/4" x 3/16" V-notch (saw tooth)	Approximately 35 sq. ft. per gallon
• Solid flooring and bamboo up to 5/8"	1/4" x 1/4" V-notch (saw tooth)	Approximately 30 sq. ft. per gallon
Adhesive Only Method:		
• All engineered plank flooring	3/16" x 1/4" x 11/16" c-c V-notch	Approximately 65 sq. ft. per gallon
• Solid flooring and bamboo with a width of 3" or less and measuring 5/8" or less in thickness	3/16" x 1/4" x 1/2" c-c V-notch	Approximately 50 sq. ft. per gallon
• Solid flooring and bamboo with a width greater than 3" and measuring 5/8" or less in thickness	3/16" x 3/16" x 3/16" Square-notch	Approximately 35 sq. ft. per gallon
• All parquets measuring less than 3/4" thickness	1/8" x 1/8" x 1/8" Square-notch	Approximately 65 sq. ft. per gallon
<b>Trowels: (not to scale)</b>		
 V-notch	 Saw Tooth	 Square-notch
<b>CLEAN TROWEL OFTEN TO PREVENT ADHESIVE BUILD-UP.</b>		

## CLEANUP

Wet adhesive may be cleaned up or removed using a solvent such as alcohol or mineral spirits. Do not allow adhesive to cure on surface of the flooring, tools, or equipment. Follow solvent manufacturer's directions when working with solvents. Cured adhesive will be difficult to remove. For specific cleaning instructions, call Franklin Technical Service at 1-800-347-4583.

## ORDERING INFORMATION

Cat. No.	Size	Units/Case	Case Lbs.	Case/Pallet
7719	3.5 Gallon Metal Pail	1	42.79	36

## WARRANTY INFORMATION

Franklin International will honor the applicable terms of any wood floor manufacturer's current published adhesive warranty or subfloor moisture warranty (where applicable) when the flooring was installed using Titebond 771-Step in accordance with product instructions and the instructions of the wood floor manufacturer.\*

Franklin International will also warrant Titebond 771-Step to be free from defects in materials and workmanship for a period of one year from the date of manufacture, if the product has been installed in accordance with the Franklin Specification Guide and the installation instructions furnished with the product.

In the event of loss of adhesion due to product defect of Titebond 771-Step or if the terms of the warranty have been met, Franklin International will reimburse the customer one time only for the cost of labor and materials necessary to repair or replace the affected area(s) of the installed wood flooring.

\*Any and all addendums or changes to the wood floor manufacturer's warranties will be reflected in the execution of Franklin International's warranty immediately upon release by the wood floor manufacturer. The effective date of said changes and addendums will dictate coverage by Franklin International in relation to the date of installation. As Franklin International is honoring the applicable terms of all wood floor manufacturers' current published warranties, Franklin International will also require the same jobsite preparations and installation instructions that accompany each warranty in question.

In the case of subfloor moisture warranties, Franklin International will cover cupping and buckling of the wood floor when the wood floor manufacturer names coverage of these phenomenon explicitly in their subfloor moisture warranty (where applicable) for a period of 10 years for residential applications and 5 years for commercial applications.

### Exclusions from Coverage

The above warranty does not apply if: (1) all instructions regarding preparation for, installation and use of flooring products and this Product are not strictly followed (2) the Product is used as an adhesive and moisture control for below-grade applications; (3) proper job site pre-inspection, installation and maintenance procedures are not followed; (4) the concrete subfloor is not clean, flat, free of debris and structurally sound; (5) the concrete subfloor is not free of visible moisture including darkening of concrete, standing water and condensation; (6) moisture content of concrete subfloor is or becomes greater than 3 lbs. per a calcium chloride moisture test or 75% RH for adhesive only installation method; (7) moisture content of concrete subfloor is or becomes greater than 15 lbs./1000 sq. ft./24 hours per a Calcium Chloride Test (ASTM F1869) or 85% relative humidity (RH) when tested with an in situ probe (ASTM F2170) for adhesive and moisture control installation method (8) the property of the installation does not have proper drainage; (9) moisture related problems are related to flooding, leakage, topical moisture, improper ventilation, improper maintenance or cracks in the subfloor or foundation; or (10) problems arise due to defects in the flooring, or misuse or abuse. Further, the Product is not intended for mold or mildew abatement.

## CAUTION STATEMENT

**CAUTION: EYE AND SKIN IRRITANT.** Contains silyl terminated polymers. Do not swallow. Do not allow eye contact or prolonged skin contact. **First Aid:** If swallowed, do not induce vomiting; contact physician. If eye contact occurs, flush eyes with water for 15 minutes. Wash skin contact areas with soap and water. If irritation from eye or skin contact area persists, contact physician. Product releases methanol during cure. For additional information, refer to Material Safety Data Sheet. **KEEP OUT OF THE REACH OF CHILDREN.**

**Important Notice:** Our recommendations, if any, for the use of this product are based on tests believed to be reliable. Furthermore, nothing contained herein shall be construed as a recommendation to use any product in conflict with existing laws and/or patents covering any material or use.



For more information on Titebond Flooring Products, please visit:

[www.titebond.com](http://www.titebond.com)

[www.TitebondGreenChoice.com](http://www.TitebondGreenChoice.com)

**Customer Service 1-800-669-4583**

**Technical Service 1-800-347-4583**

Supersedes all previously published materials.

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