

DESCRIPTION

TimberStrong™ Hardwood Adhesive is a professional-grade, moisture-cured urethane adhesive for wood flooring. This adhesive does NOT contain any water. TimberStrong Hardwood Adhesive may be used to adhere all engineered hardwood flooring and provide moisture protection for engineered flooring up to 99% relative humidity (RH). TimberStrong Hardwood Adhesive may be used over all properly prepared substrates common to hardwood flooring installations, including concrete, plywood, OSB (underlayment grade), well-bonded ceramic tile, cement backer board, gypsum patch/underlayments (dry, above grade), cement patch/underlayments, radiant-heat flooring, and terrazzo.

PRODUCT SPECIFICATIONS

- Moisture-Cured Urethane Adhesive
- Urethane Hardwood Adhesive
- High-performance formulation
- For all glue-down engineered flooring
- Up to 99% RH

DIRECTIONS FOR USE

Read and understand data sheet completely before beginning installation. Follow industry standards and flooring manufacturer’s recommendations for acclimation, design, layout, and installation of wood flooring material.



SURFACE PREPARATION

All surfaces must be absorptive, clean, and free from loose materials, oil, grease, sealers, curing compounds, waxes, silicates, laitance, and all other surface contaminants that may inhibit proper bond. Completely remove cutback adhesive residue or other surface contaminants by diamond grinding to open the pores of the concrete. All surfaces to be treated must have a concrete surface profile (CSP) of 1–3 (similar to a broomed finish), as defined by International Concrete Repair Institute (ICRI) Guideline No. 03732. Maximum acceptable floor variation is 3/16 inch in 10 feet and 1/32 inch in 12 feet per ASTM F710. Any required patching or leveling of the subfloor should be performed using a portland cement-based material. For cracks in concrete that are larger than 1/8 inch, use a quality urethane sealant.




REQUIRED TOOLS AND COVERAGE

Trowel dimensions are width x depth x spacing. Coverage is approximate and may vary depending on porosity of substrate and the angle at which the trowel is held.

ADHESIVE & MOISTURE-VAPOR MEMBRANE INSTALLATION METHOD			
Flooring Type	Trowel Size	Image (not to scale)	Coverage (per gallon)
Engineered hardwood flooring up to 5/8" thick	1/4" x 1/4" V-notch		30–35 sq ft
	1/4" x 1/4" x 1/4" square notch		30–35 sq ft

ADHESIVE & MOISTURE-VAPOR MEMBRANE INSTALLATION METHOD			
Flooring Type	Trowel Size	Image (not to scale)	Coverage (per gallon)
Engineered hardwood flooring >5/8" thick, or plywood	1/2" x 15/32" V-notch		20 sq ft
	1/4" x 3/8" x 1/4" square notch		20 sq ft

Note	Trowel size is suggested to maximize coverage of adhesive. Periodically lift a board to ensure the following conditions are being met: 95% coverage of concrete substrate and 95% transfer to the back of the flooring product. Uneven subflooring may require the use of either a leveling/patching material or a larger V-notch trowel for proper coverage.		
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ADHESIVE ONLY INSTALLATION METHOD			
Flooring Type	Trowel Size	Image (not to scale)	Coverage (per gallon)
Engineered hardwood flooring <1/2" thick	3/16" x 5/32" V-notch		50 sq ft
Engineered hardwood flooring >1/2" thick	1/4" x 1/4" x 1/8" square notch		40 sq ft
Plywood >1/2" thick	1/4" x 1/4" x 1/4" square notch		35 sq ft

Note	Trowel size is suggested to maximize coverage of adhesive. Periodically check coverage of adhesive during installation: >80% coverage and transfer to the back of the flooring is required for all engineered wood flooring; >95% coverage is required for all solid wood flooring.		
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INSTALLATION

Begin with a starter row secured to the subfloor; the starter row provides a stationary point to push against so flooring doesn't move during installation. Once the starter row is secured, apply adhesive/membrane to substrate using the appropriate trowel. Flooring may be installed using a "wet-lay" method of installation. For wet-lay installations, spread the adhesive and begin to install the flooring immediately. Periodically lift boards immediately after installation to ensure proper slab coverage and transfer to the back of the flooring. As you work, immediately clean any adhesive from prefinished flooring with adhesive remover or mineral spirits (be careful not to harm finish), then dry buff with a nonabrasive towel. After a few rows have been installed, and as you move across the room, tape the boards together to prevent them from sliding and to secure close-fitting joints. Rolling is recommended for most installations. For some sensitive factory-applied finishes, such as oil-based finishes, tape and rolling may not be recommended. Test to ensure that tape removal after rolling does not harm finish. Flooring that is not flat should be weighted or rolled to ensure proper contact between the flooring and substrate. PLYWOOD OVER CONCRETE: Score 4' x 4' or 2' x 8' sheets of 3/4-inch exterior-grade plywood on the backside every 8 to 10 inches by using a circular saw and cutting one-half the thickness of the plywood; scoring, or "kerfing," takes the tension out of the plywood and helps to prevent possible warping or curling. Apply adhesive/membrane to substrate, and then set plywood into the wet adhesive/membrane. Allow the adhesive to fully cure before nailing or using TimberStrong adhesive to install flooring. If nailing to the plywood, nails must not protrude through to the adhesive.



CLEANUP

As stated in the Installation section above, if installing a prefinished flooring, immediately clean any adhesive residue that may find its way to the surface of the product. Not doing so may permanently damage the flooring finish. To properly clean, use adhesive remover or mineral spirits, being careful not to harm the finish, then dry buff with a nonabrasive towel. Immediately clean all tools and equipment with adhesive remover or mineral spirits before the adhesive residue cures.

CURE TIME

Humidity affects cure to a greater degree than temperature; the higher the humidity, the faster the cure. Under normal conditions, light foot traffic is acceptable after 8 to 10 hours and normal traffic after 24 hours.

SHELF LIFE

Store at temperatures between 50°F and 100°F (10°C and 38°C). Shelf life is one year from date of manufacturing in original, unopened container.

LIMITATIONS

- Periodically check coverage of adhesive during installation; 100% substrate coverage and adhesive transfer is required to protect against damages from subfloor moisture vapor.
- Due to limitations with solid and bamboo wood flooring (e.g., lack of dimensional stability), “below-grade” installations are limited to engineered hardwood flooring.
- For substrates with any history of moisture-vapor problems, engineered hardwood flooring on concrete slabs exceeding 85% RH, or solid hardwood or bamboo on concrete slabs exceeding 3 pounds MVER (moisture vapor emissions rate) or 75% RH, use a high-performance moisture-vapor-reduction product or adhesive with unlimited MVER rating.
- On- or below-grade substrates must have appropriate vapor barrier (6 mil poly or better) properly installed below slab.
- Do not install solid wood flooring over VCT/vinyl.
- Bamboo installations should follow solid hardwood flooring installation recommendations.
- Slab temperature should be between 50°F and 95°F (10°C and 35°C) during installation.
- Do not use on wet, dusty, contaminated, glassy, smooth, or friable substrates. Do not use over substrates/slabs treated with sealers or curing compounds.
- Completely remove all adhesive residue and other surface contaminants by diamond grinding, shot blasting, or scarifying.
- Do not use over perimeter-bonded flooring material.
- Use over gypsum-based underlayments is limited to dry, “above-grade” installations where the gypsum has dried hard (not dusty/powdery), with a minimum compressive strength > 2,000 psi for engineered hardwood installations, or minimum compressive strength > 2,500 psi for solid hardwood installations.
- Please refer to flooring manufacturer’s recommendations and NWFA’s specifications for proper acclimation, verification of moisture-vapor content of flooring with a moisture-vapor meter, and expansion relief around perimeter throughout installation.
- Do not use with vinyl-backed cork flooring or foam-backed parquet.
- Do not use in areas subject to hydrostatic head.
- Do not use TimberStrong as a moisture-vapor membrane beneath solid or bamboo flooring.



- This membrane is designed to reduce moisture-vapor emissions that originate/emanate from below the membrane only.
- This membrane does NOT reduce/affect issues originating from the sides, ends, or top of flooring (i.e., puddles, water, leaks, hydrostatic head, etc.).

TimberStrong is a moisture-cure adhesive. Humidity affects cure to a greater degree than temperature; the higher the humidity, the faster the cure. This adhesive will take longer to cure in colder and drier ambient conditions.

Disclaimer

The information provided in this Technical Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.