North American ADHESIVES®

Timber Bond™ Super

3-in-1 Moisture-Control, Sound-Reduction and Wood-Flooring Urethane Adhesive

PRODUCT DESCRIPTION

Timber Bond Super is a 3-in-1, 100%-solids, one-component, moisture-curing urethane adhesive for all types of wood flooring and bamboo. *Timber Bond Super* provides sound-reduction properties, making it suitable for use in multi-unit housing projects. It also provides excellent bond strength and moisture control of the concrete slab up to 25 lbs. (11,3 kg) moisture vapor emission rate (MVER) and 100% relative humidity (RH).

FEATURES AND BENEFITS

- Moisture barrier, sound reduction and bonding system in a single product
- 100%-solids formulation; moisture-cured and with no solvent added
- Durable bond strength for exotic and domestic wood species
- Lifetime bond performance warranty
- Low-odor formula with negligible volatile organic compound (VOC) content
- Formula based on rapidly renewable raw materials
- Easy to trowel with excellent trowel-ridge holdout for proper adhesive bonding
- Can be used with ceramic tile and stone for mixed-media installations with wood flooring

USES

- Approved for use with solid and engineered exotic and domestic wood flooring of any width and length; finger-block parquet; acrylic impregnated wood and laminated plank; bamboo; and reground rubber or cork underlayments
- Approved for bonding plywood panels to concrete subfloors as required for nail-down or double-glue installation methods of the final flooring
- Interior residential (rental apartments, condominiums and homes)
- Interior commercial (office buildings, hotel rooms and hallways, and restaurant dining areas)
- Interior heavy commercial (hotel lobbies, convention centers, airports and department stores)
- Interior institutional (hospitals, schools, universities, libraries and government buildings)

SUBSTRATE REQUIREMENTS

All substrates must be structurally sound, dry, solid and stable with no visible standing water and dry to the touch. The substrate should be clean and free of dust, dirt, oil, grease, paint, curing agents, concrete sealers, loosely bonded toppings, loose particles, and any other substance or condition that may prevent or reduce adhesion. Substrates must be flat to 3/16" in a 10-foot span (4,5 mm in a 3,05-m span). Concrete surfaces must be porous and have a light broom finish. Do not install over extremely smooth, nonporous or glass-like concrete surfaces. If the substrate is glass-like or nonporous, it must be mechanically profiled and prepared by shotblasting, sandblasting, water jetting, scarifying or other engineer-approved methods to an International Concrete Repair Institute (ICRI) concrete surface profile (CSP) #2 to #3 standard. Note: Diamond grinding is an approved method for subfloor preparation in small areas that are not accessible by the methods mentioned above. Concrete and exterior-rated, cement-based underlayments/patches must be cured and free of any hydrostatic and/or moisture problems. Consult Technical Services for installation recommendations regarding substrates and conditions not listed.

SUITABLE SUBSTRATES (properly prepared)

- Concrete (at least 14 days old) with an appropriate moisture vapor barrier properly installed beneath the slab
- Properly prepared cement terrazzo
- Exterior-grade plywood and other approved wood substrates (per wood-flooring manufacturer recommendations). Note: Moisture-barrier properties do not apply to installations over wood underlayments. Install using the Traditional Installation Method detailed in the "Application" section below.
- Existing, properly prepared ceramic tile as long as glazed surfaces are abraded
- Exterior-rated, cement-based self-leveling underlayments and patching compounds
- Epoxy moisture barriers

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- Properly prepared, primed gypsum underlayments that meet the requirements for compressive strength according to ASTM F2419. Note: Moisture-barrier properties do not apply to installations over gypsum underlayments. Install using the Traditional Installation Method detailed in the "Application" section below.
- Radiant-heat systems that have been properly installed. Note: Moisture-barrier properties do not apply to installations over radiant-heat systems. Install using the Traditional Installation Method detailed in the "Application" section below.

See the "Surface Preparation for Wood-Flooring Installations" document from North American Adhesives at www.na-adhesives.com.

LIMITATIONS

- Do not install over any substrates containing asbestos.
- For interior installations only
- Not recommended for flooring designed for nail-down installations only
- Do not use to install solid hardwood or bamboo flooring below grade.
- Do not install over existing perimeter-bonded, loose-lay vinyl flooring or any other dimensionally unstable flooring.
- Not recommended for prefinished cork flooring
- Install flooring only in areas recommended by the wood-flooring or bamboo manufacturer.
- Do not apply over any adhesive residues, including cutback adhesive.
- Do not install if standing water is observed on the surface of any substrate.
- Do not install in areas with known hydrostatic moisture problems.
- Do not install if the substrate has a glass-like surface.
- Use only when the substrate temperature is between 50°F and 90°F (10°C and 32°C), and when the ambient relative humidity (RH) is between 20% and 80%.
- Patch and level with exterior-rated, cement-based products only.

MIXING

Consult the Safety Data Sheet for safe-handling instructions.

- Ready to use; no mixing is necessary.

APPLICATION – MOISTURE-CONTROL METHOD (for use over concrete substrates)

Refer to the wood-flooring manufacturer's guidelines for acclimation requirements and complete installation instructions.

1. Remove the two clip-on trowel attachments found inside the *Timber Bond Super* pail and select the appropriate one for the flooring to be installed. For wood flooring less than 3/8" (10 mm) thick, use the clip-on trowel measuring 1/8" x 1/8" x 1/8" x 1/16" (3 x 3 x 3 x 1,5 mm). For wood flooring between 3/8" and 3/4" (10 and 19 mm) in thickness, use the clip-on trowel measuring 3/8" x 3/16" x 3/8" x 1/16" (10 x 4,5 x 10 x 1,5 mm).
2. Using the trowel's flat side, key the adhesive into the subfloor, creating a smooth, void-free surface.
3. Once the adhesive has been keyed in, immediately spread the adhesive using the provided clip-on trowel. Trowel ridge lines should be perpendicular to the wood-flooring installation direction. Hold the trowel at a 60- to 90-degree angle to the subfloor, making sure that the subfloor is covered 100% with adhesive and that no void spots appear other than the "valley bottoms" created by the trowel. These areas will fill in as the wood is installed.
4. Only apply as much as can be installed within 45 to 60 minutes.
5. Install wood flooring in strict accordance with the wood-flooring manufacturer's written instructions.
6. Install flooring immediately, pressing firmly into the adhesive bed to ensure that all ridges are compressed into a monolithic layer. Periodically check for 100% coverage over the subfloor and transfer to the back of the flooring.

Note: Use fresh clip-on trowel attachments for each pail of *Timber Bond Super* used. Do not reuse clip-on trowel attachments. Proper coverage is paramount for warranty coverage.

APPLICATION – TRADITIONAL INSTALLATION METHOD (for use over wood, gypsum, radiant-heat floors and other moisture-sensitive substrates)

1. Select the appropriately notched trowel (see the "Approximate Coverage – Traditional Installation Method" section) and spread the adhesive evenly over the subfloor, keeping the trowel at a 45-degree angle to the subfloor.
2. Only apply as much as can be installed within 45 to 60 minutes.
3. Install wood flooring in strict accordance with the wood-flooring manufacturer's written instructions.

APPLICATION – MOISTURE-CONTROL METHOD (for plywood sheets over concrete substrates)

1. Score 3/8" (10 mm) deep kerf cuts every 8" to 10" (20 to 25 cm) on the underside of 4' x 4' (1,2 x 1,2 m) or 2' x 8' (0,6 x 2,4 m) sheets of 3/4" (19 mm) exterior-grade plywood, using a circular saw per NWFA installation guidelines.
2. Using the 1/8" x 1/8" x 1/8" x 1/16" (3 x 3 x 3 x 1,5 mm) notch trowel, apply the adhesive to the substrate in a smooth, uniform, void-free layer.

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3. Set the plywood sheets into the wet adhesive. Ensure 100% coverage and transfer for moisture control.
4. Allow the adhesive to cure for 12 hours before sanding or preparing the plywood sheets to receive flooring.
5. Install flooring to the surface of the prepared plywood by either nailing, stapling or bonding using *Timber Bond Super.* Do not allow nails or staples to penetrate through the plywood and enter the membrane, as this will void the moisture control warranty.

CLEANUP

- *Timber Bond Super* is extremely difficult to remove when cured. Immediately clean any adhesive smudges from tools and the flooring material's surface with a urethane cleaner while the adhesive is still fresh/wet.

PROTECTION

- Protect from light traffic for at least 12 hours. Protect from heavy traffic for at least 24 hours.
- Building owners should become aware of the wood-flooring manufacturer's guidelines for climate-control settings (temperature and humidity). These conditions must be monitored and kept constant to ensure the overall performance and long-term success of the installation.
- Protect containers from freezing in transit and storage. Provide for heated storage on site and deliver all materials at least 24 hours before work begins.

Product Characteristics	
Color	Off white
Packaging	Metal pail: 4 U.S. gals. (15,1 L)
Adhesive type	Moisture-cured polyurethane
Solids content	100%
VOCs (Rule #1168 of SCAQMD)	< 20 g per L
VOCs (Section 01350 of California's CDPH)	Passed
Density	14 lbs. per U.S. gal. (1,69 g per mL)
Consistency	Smooth paste
Shelf life	1 year when stored in original, unopened packaging at 73°F (23°C)
Storage conditions	50°F to 90°F (10°C to 32°C)
Flash point (Tag)	> 200°F (93°C)
Perm rate (ASTM E96)	< 0.15 perms

Sound-Reduction Ratings – Engineered Wood[1] 3/8" (10 mm) Thick Over 6" (15-cm) Concrete Slab[2]		
ASTM Test Method	**No Suspended Ceiling**	**Suspended Gypsum Ceiling**
ASTM E90-09/E413-04 (STC) – Airborne sound	50 (NGC Test No: 5010020)	67 (NGC Test No: 5010019)
ASTM E492-09/E989-09 (IIC) – Impact sound	50 (NGC Test No: 7010034)	68 (NGC Test No: 7010037)
ASTM E2179-03 (Delta IIC) – Impact sound	21 (NGC Test No: 7010035)	N/A

Assembly details:
Timber Bond Super wood-flooring adhesive applied with clip-on trowel attachment

[1] *1 layer of 3/8" thick x 3" wide (10 mm x 7,5 cm) random-length, oak, engineered, prefinished hardwood flooring*

[2] *6" (15 cm) thick reinforced concrete slab; weight is 70 psf (366,1 kg per m²)*

Application Characteristics			
Wood Flooring	**Flash Time†**	**Working Time††**	**Adjustability Time†††**
At 50°F (10°C) and 80% RH	0 minutes	45 to 60 minutes	2 to 3 hours
At 73°F (23°C) and 50% RH	0 minutes	45 to 60 minutes	2 to 3 hours
At 90°F (32°C) and 20% RH	0 minutes	45 to 60 minutes	4 to 5 hours

† *Flash time is the recommended amount of time for a freshly applied adhesive to remain exposed to the air before the installation of floor covering.*

†† *Working time is the maximum amount of time that an adhesive can remain exposed to the air and still effectively bond to the floor covering.*

††† *Adjustability time is the window of time during which the floor covering can be repositioned without compromising the bond of the adhesive.*

Note: Working time may vary based on temperature, humidity, substrate porosity, trowel size and jobsite conditions.

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Approximate Coverage – Moisture-Control Method*	
Typical Trowel	**Coverage**
For wood flooring ≥ 3/8" (10 mm) and ≤ 3/4" (19 mm) in thickness: V-notch with lift spacers (included in package) – 3/8" x 3/16" x 3/8" x 1/16" (10 x 4,5 x 10 x 1,5 mm)	30 to 40 sq. ft. per U.S. gal. (0,73 to 0,98 m^2 per L)
For wood flooring < 3/8" (10 mm) in thickness: V-notch with lift spacers (included in packaging) – 1/8" x 1/8" x 1/8" x 1/16" (3 x 3 x 3 x 1,5 mm)	30 to 40 sq. ft. per U.S. gal. (0,73 to 0,98 m^2 per L)

Approximate Coverage – Traditional Installation Method*		
Flooring Type	**Typical Trowel**	**Coverage**
Reground rubber and cork underlayments	1/16" x 1/16" x 1/16" (1,5 x 1,5 x 1,5 mm), square-notch	125 to 185 sq. ft. per U.S. gal. (3,06 to 4,53 m^2 per L)
Finger-block parquet	1/8" x 1/8" x 1/8" (3 x 3 x 3 mm), square-notch	70 to 80 sq. ft. per U.S. gal. (1,71 to 1,96 m^2 per L)
Wood flooring, < 1/2" (12 mm) thickness	3/16" x 5/32" (4,5 x 4 mm), V-notch	45 to 55 sq. ft. per U.S. gal. (1,10 to 1,35 m^2 per L)
Wood flooring, 1/2" to 5/8" (12 to 16 mm) thickness	1/8" x 1/4" x 1/4" (3 x 6 x 6 mm), square-notch	40 to 50 sq. ft. per U.S. gal. (0,98 to 1,22 m^2 per L)
Wood flooring, > 5/8" (16 mm) thickness	1/4" x 1/4" x 1/4" (6 x 6 x 6 mm), square-notch	30 to 40 sq. ft. per U.S. gal. (0,73 to 0,98 m^2 per L)

** Trowel dimensions are depth/width/space. Coverage shown is for estimating purposes only. Actual jobsite coverage may vary according to substrate conditions, type of trowel used and setting practices.*

Industry Standards and Approvals	
LEED v4 Points Contribution	**LEED Points**
Health Product Declaration (HPD)**	Up to 2 points
Additional Green Certifications	
CRI Green Label Plus #GLP00527. Refer to the CRI's Website at www.carpet-rug.org for additional information.	
Living Building Challenge (LBC) Red List Free: This product has been verified per the most current Red List on the LBC's Website.	

*** Using this product may help contribute to LEED certification of projects in the category shown above. Points are awarded based on contributions of all project materials.*

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Refer to the Safety Data Sheet for specific data related to health and safety as well as product handling. For the most current product data and warranty information, visit www.na-adhesives.com.

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