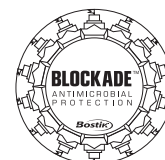




PRODUCT INFORMATION

ULTRA-SET® SINGLESTEP™

Hardwood Adhesive
Moisture Vapor and Sound Reduction Membrane



PRODUCT DESCRIPTION

Bostik's Ultra-Set® SingleStep™ is a one-part, trowel applied, tacking, moisture-cure urethane Adhesive, Moisture Vapor and Sound Reduction Membrane. This scientifically-formulated adhesive and membrane is very tenacious, has very low moisture permeability, and is formulated with patent pending Thickness-Control™ Spacer Technology to ensure proper membrane thickness between hardwood flooring and the substrate. Bostik's Ultra-Set SingleStep does NOT contain any water, and has zero VOC as per SCAQMD 1168.

Once cured, Ultra-Set SingleStep will create a tough, flexible, tenacious bond to a variety of substrates for glue-down installations of engineered, solid, and bamboo wood flooring while also forming an elastomeric, urethane membrane designed to reduce moisture vapor transmission from the subfloor; create a noise reduction barrier over the substrate; and establish an anti-fracture membrane which can bridge cracks that can occur in the substrate prior to or after installation (up to 1/8"). Ultra-Set SingleStep's elastomeric characteristics allow the adhesive/membrane to move with the wood as it expands and contracts over the life of the floor. Ultra-Set SingleStep contains Bostik's BLOCKADE™ antimicrobial protection, which inhibits the growth of bacteria, mold or mildew on the surface of the dried membrane; the dried membrane resists stains caused by mold.

Ultra-Set SingleStep may be used over all properly prepared substrates common to hardwood flooring installations, including: concrete, plywood, particle or chip board (underlayment grade), well-bonded vinyl and ceramic tile, cement backer board, gypsum patch/underlayments (dry, above grade), cement patch/underlayments, radiant-heat flooring, and properly prepared terrazzo.

CHEMICAL & PHYSICAL PROPERTIES

Percentage of Water *1:	0.0%
Water Vapor Permeability *2	0.6
Percentage of Adhesive Coverage Required for:	
- Engineered Hardwood Flooring	≥95%
- Solid Bamboo Hardwood Flooring	100%
Elongation	> 180%
"Working Time" in Minutes*3	Open Time: 90
Application Temperature	50°F to 100°F
Service Temperature	-40°F to 150°F
Flash Point	≥ 200°F, closed cup
ASTM E 2179 Increased Impact Insulation	Δ IIC 23 dB
ASTM E492-04 IIC (6" concrete slab with no ceiling)	52 dB
IIC (6" concrete slab with 1 layer 5/8" gypsum board ceiling)	71 dB
V.O.C. Compliant	Yes (0.0 g/L)
Odor	Mild/not easily detectable
Color	White with black specks
Weight	14.7 lbs./gallon
Cure Time*4	8 to 10 hours

*1 Per ASTM E203-01 Standard Test Method for water using Volumetric Karl Fischer Titration Method. Results rounded to the nearest tenth. Test Method Has Error Range of +/- 0.2%.

*2 Per ASTM E-96 Standard Test Methods for Water Vapor Transmission of Materials. Ratings are g/m2 -24hour-mmHG.

*3 Please refer to Open/Working Time Chart.

*4 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 6 to 8 hours; normal traffic after 12-16 hours.

Ultra-Set SingleStep may also be used to install plywood as described, as well as ceramic tile, marble, and stone inlays for light commercial and/or residential applications.

Ultra-Set SingleStep was independently tested in a controlled laboratory environment to measure the IIC (Impact Insulation Class) according to ASTM E492-04 standards installed with 3/8" thick engineered wood flooring over a 6" concrete sub floor with a 5/8" suspended gypsum ceiling, achieved an IIC = 71 and with no suspended ceiling, IIC = 52 and an increase in Impact Insulation ΔIIC = 23.0.



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Wood Flooring
Urethane Adhesives

September, 2010; Supersedes all previously published literature.

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DIRECTIONS FOR USE

Read and understand data sheet completely before beginning installation. Follow industry standards and wood flooring manufacturer's recommendations for acclimation, design, layout and application of wood flooring material. If jobsite conditions are outside of wood flooring manufacturer's recommendations, take necessary corrective actions. Whether the moisture content of substrate exceeds or is within the wood flooring manufacturer's recommendations, to address current or possible future subfloor moisture, noise, and cracks (up to 1/8"), apply Ultra-Set SingleStep as directed.

SURFACE PREPARATION

Surfaces must be clean, dry and flat, free of voids, projections, loose materials, oil, grease, sealers and all other surface contaminants. Completely remove any adhesive residue or surface contamination by sandblasting, shot blasting or scarifying. When sandblasting, shot blasting or scarifying, the resulting surface texture must be similar to light broom finished concrete. Maximum acceptable floor variation is 3/16" in 10 feet. Areas requiring patching or leveling must be done using a Portland cement-based material (e.g., Bostik UltraFinish, Fast Patch 102™ or SL-150™ Self-Leveling Underlayment).

PLEASE NOTE: Concrete substrates should NOT be smooth and reflective; they should be a dull or broom-type surface texture for the adhesive/membrane to properly penetrate and bond.

INSTALLATION

The installation begins 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 V-Notch trowel. See the chart on the side panel for proper trowel selection.

Flooring may be installed using a "Wet-Lay" or "Walk-On-Work" method of installation. For "Wet-Lay" installations, spread the adhesive and begin to install the flooring immediately. For "Walk-On-Work" installations, spread the adhesive and allow the adhesive to develop "tack," and then begin to install the flooring material. As you work, immediately clean any adhesive from prefinished flooring with Bostik's Ultimate Adhesive Remover™ or mineral spirits (be careful not to harm finish), then dry buff with a non-abrasive paper towel. After a few rows have been installed, and as you move across the room, tape the

boards together using removable 3M #2080 Blue tape to prevent boards from sliding and to secure close-fitting joints. Rolling is recommended for all installations. Flooring that is not flat should be tacked, weighted, or rolled to ensure proper contact between the flooring and substrate.

PLYWOOD OVER CONCRETE: Score 4' x 4' sheets of 3/4" exterior-grade plywood on the backside every 8" to 10" 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. Using a 1/4" x 1/4" V-Notch Trowel, apply adhesive/membrane to substrate and then set plywood into the wet adhesive/membrane. Allow the adhesive/membrane to fully cure before nailing strips or using Bostik's Ultra-Set SingleStep adhesive/membrane to install flooring.

OPEN/TACK TIME

Refer to "Open/Tack Time Chart."

CLEAN UP

As you work, immediately clean any adhesive from prefinished flooring with Bostik's Ultimate Adhesive Remover™ or mineral spirits (be careful not to harm finish), then dry buff with a non-abrasive paper towel. Immediately clean all tools and equipment with Bostik's Ultimate Adhesive Remover™ or mineral spirits before material cures.

TROWEL CLEAN-UP TIP: Before use, cover areas of the trowel that are not used to spread the adhesive with duct tape. After use, simply tear off tape before material cures, and clean the remainder of the trowel with adhesive remover.

LIMITATIONS

- Periodically check coverage of adhesive during installation; 100% coverage is required for all solid wood flooring that is less than 1/2" thick or any bamboo wood flooring, >95% coverage is required for all other wood flooring. In order to protect flooring against damages caused by subfloor moisture, solid, engineered and Bamboo flooring must have a minimum of 95% adhesive *transfer* between the flooring and substrate.
- Due to limitations with solid and bamboo wood flooring (e.g., lack of dimensional stability), "below-grade" installations are limited to engineered hardwood flooring.
- 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 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; do not use in areas subject to hydrostatic head.
- Completely remove all adhesive residue and other surface contaminants by sandblasting, shot blasting, or scarifying.
- Do not use over perimeter bonded flooring material.
- Use over gypsum-based patch/underlays 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 wood flooring manufacturer's recommendations and National Wood Flooring Association's specifications for proper acclimation and expansion relief around perimeter or throughout installation.
- Do not use with vinyl-backed cork flooring or foamed backed parquet.

STORAGE SHELF LIFE

Store at temperatures between 50°F and 100°F. Shelf life is one year from date of manufacturing in closed, original packaging.

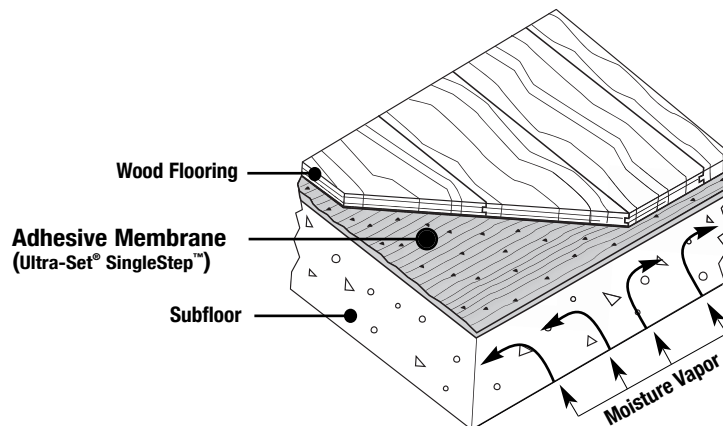
RE-SEAL PARTIALLY USED CONTAINER: With pail upright place a sheet of plastic (e.g., trash bag) over the top of the pail. Secure lid tightly over the plastic on top of pail. Carefully turn pail upside down. Plastic will help prevent the material from bonding the lid closed.

RE-OPEN PARTIALLY USED CONTAINER: Carefully turn pail right side up. Remove lid. Carefully cut and discard cured material and plastic from top of pail. Any uncured material may be used.

PACKAGING

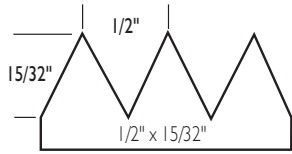
Ultra-Set® SingleStep™ is available in 4 gallon pails; 27 pails per pallet.

MEMBRANE REDUCES MOISTURE VAPOR EMISSIONS

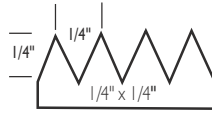


- This membrane is designed to reduce moisture vapor emissions that originate/emanate from below the membrane only.
- This membrane does NOT reduce/affect issues originating from the sides, ends, or top of flooring (ie. puddles, water, leaks, hydrostatic-head, etc.).
- This membrane does NOT eliminate all possible moisture related or install related issues (i.e. improper acclimation of flooring, jobsite temperature/relative humidity, etc.).
- This membrane is designed to prevent excessive variance of moisture between the top, middle, and bottom of flooring that originates from the substrate.

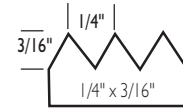
SUGGESTED NOTCHED TROWEL FOR MAXIMUM PERFORMANCE



1/2" x 15/32" V Notch
Wood flooring greater than 5/8" thick.
Coverage: 20 sq. ft. per Gallon



1/4" x 1/4" V Notch
Wood Flooring up to 5/8" thick
Coverage: 30 sq. ft. per Gallon



1/4" x 3/16" V Notch
Wood Flooring up to 3/8" thick
Coverage: 35 sq. ft. per Gallon

Trowel size is suggested to maximize coverage of adhesive. Periodically check coverage of adhesive during installation; 100% coverage is required for all solid wood flooring that is less than 1/2" thick or any bamboo wood flooring; >95% coverage is required for all other wood flooring. Uneven subflooring may require the use of either a leveling/patching material, or a larger V-notched trowel for proper coverage of adhesive. These trowels are available from leading tool manufacturers such as Marshalltown (www.marshalltown.com).

OPEN/TACK TIME CHART

TEMP.		HUMIDITY		
		40%	60%	80%
60°F	Open Tack	2.5 Hours 1 Hour	2.5 Hours 1 Hour	2 Hours 45 Minutes
70°F	Open Tack	2 Hours 45 Minutes	2 Hours 45 Minutes	1.5 Hours 30 Minutes
80°F	Open Tack	1.5 HOURS 30 Minutes	1.5 HOURS 30 Minutes	1 HOUR 15 Minutes

NOTE: This chart is for reference only; actual jobsite times may vary.



Bostik

Middleton, MA 01949
1-800-7/BOSTIK
1-800-726-7845

PLANT LOCATIONS

Temecula, CA 92590
Conyers, GA 30207

www.bostik-us.com

LIMITED WARRANTY

Bostik, Inc. warrants that the product conforms with Bostik's written specifications and is free from manufacturing defects. A PURCHASER'S SOLE REMEDY FOR NONCOMPLIANCE WITH THIS WARRANTY SHALL BE THE REPLACEMENT OF THE PRODUCT OR REFUND OF THE PURCHASE PRICE. Purchasers may address their warranty claims to Bostik, Inc., 211 Boston St., Middleton, MA 01949, Attn: Customer Service or call Bostik at 1-800-7/BOSTIK. TO THE MAXIMUM EXTENT ALLOWED BY LAW, BOSTIK DISCLAIMS ALL OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND LIABILITY FOR DIRECT, INCIDENTAL, CONSEQUENTIAL, OR SPECIAL DAMAGES. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

