

SHAW 3-in-1 ULTRA HARDWOOD FLOORING ADHESIVE Concrete Moisture Inhibitor, Sound Reduction System & Crack Isolation

DESCRIPTION:

Shaw 3-in-1 ULTRA Hardwood Flooring Adhesive is a one component 100% solids, cross linking, MS polymer-based adhesive formulated for the interior installation of SHAW brand hardwood products. Shaw 3-in-1 ULTRA has excellent concrete moisture inhibition capabilities as well as good sound reduction properties that meets the IIC and STC building code requirements. Shaw 3-in-1 ULTRA is solvent and isocyanate free, has negligible VOC content, contains no hazardous chemicals as per OSHA Regulation CFR 1910.1200 and is a nonflammable, low odor adhesive that meets all federal, state, and local governmental indoor air quality regulations. This specially formulated adhesive has excellent green strength for immediate grab and quickly builds into a tenacious but elastic resilient bond as the adhesive cures. Shaw 3-in-1 ULTRA is approved for use over APA grade underlayment plywood, fully secured cork underlayments, existing well-bonded vinyl, tile and sheet flooring, terrazzo, and cementitious concrete. Install above, on, or below grade, in the absence of excessive moisture. While 3-in-1 ULTRA is waterproof when cured, the wood flooring still must be protected from excessive moisture.

For regular wood flooring applications not involving the moisture inhibition system using the trowel included in the pail (3/16" x 1/4" x 1/2" Flat "V" Notch with Spacers trowel), moisture levels of concrete must be below 3 lbs. per 1,000 square feet per 24 hours (1.36 kg per 92.9 m² per 24 hours) using an anhydrous calcium chloride test kit according to ASTM F-1869 test method, or below 75% relative humidity tested in accordance with ASTM F-2170. The moisture content must be within the limits recommended by SHAW, generally a maximum of 75% RH. Wood underlayments must be at or below 12% using a Tramex or Delmhorst invasive (pin-type) wood moisture meter. See the trowel recommendation chart and follow installation instructions below. If using 3-in-1 Ultra as a moisture barrier or for sound reduction in addition to installation, all conditions and exclusions as stated in the most current Shaw 3-in-1 Ultra Adhesive System Warranty for Concrete Moisture Remediation, and the Substrate Preparation below, must be strictly adhered to.

SUBSTRATE PREPARATION

If using the Shaw 3-in-1 ULTRA one step application trowel to apply the moisture barrier and installation coat of adhesive and not testing for moisture, specific concrete subfloor preparation is required. Concrete must be poured in strict accordance with applicable standards and specifications, and an intact moisture barrier must be present below the concrete. Concrete must be at least 45 days old, fully cured, dry to the touch, absorbent (drops of water must soak in within one minute), free of dust, dirt, wax, loose paint, incompatible curing compounds or fire retardant chemicals, fungicides, release agents, sealers, or any other foreign substances that might interfere with a good bond, and must have a concrete surface profile (CSP) of 1-3 (like a broomed finish). Any old adhesive residue, including cutback adhesive, must be completely removed by shot blasting or diamond grinding to open the concrete and render it absorbent. Substrate must be level to 3/16" in a 10 ft span (5 mm in a 3m span). Proper substrate preparation for no moisture test installation is the sole responsibility of the contractor/installer.

For regular installations, substrate must be sound, smooth, level, clean and dry. It must be free of dust, dirt, wax, loose paint, incompatible curing compounds or fire retardant chemicals, fungicides, release agents, sealers, or any other foreign substances that might interfere with a good bond. Substrate must be level to 3/16 inch in a 10 foot span (5mm in a 3m span). **NOTE:** When installing thin gauged wood (solid or engineered) irregular substrates may telegraph through as adhesive pulls wood down during curing stages. Therefore substrates must be properly leveled to prevent telegraphing. Fill all cracks, holes and low spots with polymer modified cementitious compound and allow to fully cure before applying adhesive. High spots must be ground level. Substrate, adhesive and wood flooring must be acclimated in an enclosed building with the HVAC operational and running for at least 72 hours before, during and after the installation. The installation temperature and relative humidity must be controlled between 60°F (15°C) and 85°F (30°C), and between 35% and 55% relative humidity. Open time will vary with temperature and humidity or porosity of the substrate. **NOTE:** Follow the SHAW Installation Guidelines regarding site conditions and installation.

WOOD INSTALLATION:

1. Follow the Installation Guidelines for layout, design and any special precautions for installation.
2. Spread adhesive using recommended trowel (see trowel recommendation chart). Install wood flooring immediately after adhesive is spread. Working time is approximately 50-70 minutes under acceptable temperature and humidity conditions. Adhesive must transfer 100% to the wood floor. **NOTE:** Thin-gauged solid & engineered wood and exotic species are very sensitive to job site conditions. SHAW's pre-installation and installation instructions, including acclimation of the wood flooring, must be strictly followed or the SHAW warranty will be void.
3. Lay wood flooring into wet adhesive. Wood may slip and move at first so be sure to secure the initial row to limit movement and hold patterns. Occasionally lift a piece of wood to assure adhesive is achieving 100% transfer. If proper transfer is not achieved remove dried adhesive and apply more using recommended trowel. The use of 3M 2080 Blue tape to temporarily hold the edges together may be necessary until installation is complete. Remove all tape upon completion of the installation and do not allow tape to remain on the floor overnight.
4. When installing near a solid object or wall, leave ample room for required expansion space. Installing wood too tight against a stationary object will not allow room for normal wood expansion, which may cause a failure. When the installation is complete, use wedges or some object to hold wood in place while adhesive dries. Remove wedges after initial setting of adhesive (approximately 2 hours) to allow for normal expansion of wood. Failure to remove wedges can cause the wood flooring to buckle and pop off the substrate.



3-in-1 ULTRA

SPECIFICATION SHEET

5. Roll and cross roll floor with a 100-150 lbs (45-70 kg) roller at the end of the installation to ensure proper transfer of adhesive.
6. When installing unfinished wood flooring, wait a minimum of 72 hours before sanding.
7. Restrict light traffic for a minimum of 16 hours. Restrict heavy traffic for a minimum of 24 hours after installation is complete.
8. While this adhesive is freeze-thaw stable, it is necessary to protect from freezing.

TROWEL RECOMMENDATION CHART

Flooring Product	Trowel Size* and Notch	Coverage
Engineered products – 3/8" to 1/2" thick up to 5" wide	3/16" x 1/4" x 1/2" flat V notch	60-70 sq. ft./gal
Engineered products greater than 5" wide and 1/2" in thickness	3/16" x 1/4" x 5/16" Flat V notch	50-60 sq. ft./gal
Engineered products 1/4" thick	1/8" x 1/8" x 1/8" Square notch	up to 80 sq. ft./gal
3-IN-1 ULTRA Moisture & Sound plus Wood Installation application (see note below re spacer wear)	3/16" x 1/4" x 1/2" flat V notch with spacers	30-35 sq. ft./gal

Trowel dimensions are width x depth x spacing.

- Coverage is approximate and will vary depending on porosity and roughness of subfloor, angle at which the trowel is held, temperature of the adhesive and the subfloor, and the skill of the installer applying the adhesive.
- Coverage will be improved by priming the subfloor to reduce adhesive absorption.
- Coverage will be significantly lower over subfloors not properly prepared according to established industry guidelines

NOTE: Due to spacer wear, replace included trowel blade for every pail of Shaw 3-in-1 ULTRA Flooring Adhesive.

PHYSICAL PROPERTIES

V.O.C.	0.5 grams per liter
Appearance:	Off-white, medium paste
Working time:	Approximately 50-70 minutes, depending on job site conditions.
Shelf Life:	One year in unopened container at 70°F (21°C).
Flammability:	Non-flammable, qualified for NFPA Class A and UBC Class 1 fire ratings as determined by the ASTM E-84 Tunnel Test. Conforms to the requirements of the Hill-Burton Act and passes the Pill Test.
Other Features:	Freeze/thaw stable to 10° F. While this adhesive is freeze-thaw stable it is necessary to protect it from freezing. Made with anti-microbial agents that will provide its dry film with protection from fungal growth. This protection is determined using the ASTM G21 test method. Meets USGBC LEED EQ Credit 4.1 requirements Meets IIC & STC Building Code Requirements for Sound Reduction
Clean Up:	Clean up with Shaw approved cleaner or W.F. Taylor #9 Adhesive Remover/Stripper.

CAUTION: DO NOT take internally. If swallowed, DO NOT induce vomiting. Call a physician immediately. KEEP OUT OF REACH OF CHILDREN.

WARRANTY INFORMATION: This product is manufactured according to exacting quality control standards and is warranted to be free from manufacturing defects. Defective material called to our attention within one year of manufacture will be replaced. No guarantee, expressed or implied, is made regarding the performance of this product since the manner and conditions of application are beyond our control. For complete warranty information, call SHAW Tech Services at 800-441-7429. You may also visit us on the web at: www.SHAWfloors.com