



Bona R820™

SILANE-BASED WOOD FLOOR ADHESIVE

One-Component, silane-based engineered-wood floor adhesive



Bona R820 is a one-component, silane-based wood flooring adhesive that offers adhesion to a variety of surfaces. The initial bonding strength and ridge stability makes it particularly suitable for engineered flooring installations with low movement. The adhesive offers a long open time of up to 90 minutes and allows for easy trowel application. GREENGUARD Certified for indoor air quality.

- Easy to spread
- Long open time of up to 90 minutes
- Suitable for engineered floors
- GREENGUARD Certified



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TECHNICAL DATA

Ingredients:	Calcium carbonate, silane modified prepolymer, plasticizers, amorphous silica
Density:	14.9 lbs/gallon
Viscosity:	Low
Flash Point:	>100° C (212°F)
US Regulatory VOC:	0 g/L VOC formulation as calculated per SCAQMD Rule 1168
Odor:	non-offending
Color:	Tan
Max Shear Strength:	145psi (at final cure; lap shear test, 1mm gap) ISO 17178
Max Elongation:	100% (ISO 17178)
Moisture Levels:	Up to 6 lbs. or 80% RH (trowel dependent.) For additional moisture protection you must use Bona R540 or Bona RollGuard. Maximum 6lbs / 80% RH over radiant heat
Sound Rating:	Meets ASTM E90-09 (2016)/ E413-16 STC and ASTM E492-09 (2016) e1/ASTM E989-21 IIC, with ceiling; 60 STC and 67 IIC on 6" slab
Packaging:	3-gallon containers
Shelf life:	12 months from date of manufacture in unopened, original packaging
Storage/Transport:	Store in a climate-controlled environment. Do not store for extended periods in excess of 90°F. Freeze thaw stable.
Application Tools:	Bona Adhesive Trowel
Coverage:	See Trowel Specifications in Application section
Open time:	Up to 90 minutes @ 70F and 50% RH (Dependent of temperature and humidity. Higher humidity decreases open time while lower humidity increases open time.)
Curing time:	• Light foot traffic - 8–10 hours • Furniture and fixtures - 12-24 hours • Unfinished floor sanding - after 24 hours
Clean-up:	Clean adhesive from the surface of the floor while wet. Use mineral spirits on a clean white cloth.
Disposal:	Dispose of contents and container in accordance with all local, regional, national, and international regulations.
Certificates:	Greenguard Gold UL 2818 - 2022 Gold Standard for Chemical Emissions for Building Materials, Finishes and Furnishings

BEFORE USING, READ ALL DIRECTIONS AND MATERIAL SAFETY DATA SHEETS. KEEP OUT OF REACH OF CHILDREN. FOR TECHNICAL ADVICE: Call Bona US at 800-872-5515



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RESPONSE

. In case of eye contact, flush immediately with water. Get medical attention if irritation occurs. For skin, wash thoroughly with soap and water. If affected by inhalation,

remove to fresh air. If swallowed, do not induce vomiting. Get medical attention if symptoms occur.

RECOMMENDED USE

Commercial and residential. engineered flooring - prefinished and unfinished, maximum 10" width, 5/8" thick; on, above or below grade 1. May be used on both wood and concrete substrates2.

1 Read and follow flooring manufacturer instructions, recommendations, and limitations as to the suitability of a

particular flooring product to certain jobsite conditions and installation methods.

2 After proper site conditions, moisture testing results and substrate preparation have been met.

See "Directions for Use" for acceptable jobsite conditions.

SUITABLE SUBSTRATES

- Concrete
- Plywood
- Warmboard®
- Cork
- Particle or OSB
- Stone
- Ceramic
- Terrazzo
- Radiant heat flooring (refer to manufacturer's recommended installation instructions)
- Dry, above-grade gypsum underlayment
- Recycled-rubber underlayment

PRODUCT LIMITATIONS

Bona R820 will not prevent moisture-related damages to wood flooring originating from the top, sides or ends of flooring (water leaks, puddles, hydrostatic head, etc.) nor

does it eliminate other moisture or installation related issues such as improper acclimation of flooring or the effects of jobsite temperature and humidity.



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PREPARATION

Building climate control system must be functioning with a temperature of 65°F–80°F and maximum relative humidity of 65% for 72 hours before flooring is installed, during installation, and for 72 hours after installation. Ideal conditions are 65-70°F and 45-55% RH. Acclimate Bona R820 adhesive to room temperature of the installation, usually overnight. **MOISTURE TESTING** For concrete slabs, using standard application, conduct moisture testing per ASTM test methods F 1869. Test for Measuring Moisture Vapor Emission Rate (MVER) of Concrete Subfloor using Anhydrous Calcium Chloride, and/or F 2170 Test Method for Determining Relative Humidity in Concrete Floor Slabs using In Situ Probes. Contact ASTM International to obtain copies of the test methods before proceeding. When using Bona 1000F or Bona EF trowel MVER using ASTM F 1869 (Calcium chloride test) shall not exceed 6 lbs/24 hours/1000

square feet. Relative Humidity using ASTM F 2170 (RH Probe test) shall not exceed 80%. If MVER readings exceed 6 lbs. or 80% but are less than 18 lbs. or 95%, use Bona RollGuard™ or Bona R540 Moisture Barrier Primer (See label for detailed instructions). If using the Bona EFP trowel, MVER using ASTM F 1869 (Calcium chloride test) shall not exceed 3 lbs/24 hours/1000 square feet. Relative Humidity using ASTM F 2170 (RH Probe test) shall not exceed 75%. If MVER readings exceed 3 lbs. or 75% but are less than 18 lbs. or 95%, use Bona RollGuard™ or Bona R540 Moisture Barrier/Primer (See label for detailed instructions). For wood substrates, follow flooring manufacturer's guidelines including moisture content and required moisture measuring methods. When used over radiant heat, the maximum moisture protection is 6 lbs. / 80% RH.

SUBSTRATE PREPARATION

Substrate must be clean, smooth, dry, free of loose material and structurally sound, with the surface slightly textured (similar to a light broom finished concrete) for best adhesion. Remove adhesive residue, paint, concrete curing compounds or other contaminants that may affect adhesive bonds. Sandblasting shot blasting or scarifying may be necessary to completely remove some of these residues. Surface cracks, grooves, depressions, control joints or other non-moving joints, and other irregularities must be filled or smoothed with a Portland Cement based patching and leveling compound. Substrate must be level to 3/16" in a 10-

foot span. To achieve moisture protection when a patch or leveling compound is used, first apply one coat of Bona RollGuard at 200-250 SF/5L or two coats of Bona R540 at 400 SF / 5L. Dry sand should be broadcast into the final coat of moisture barrier (while wet, until rejection) prior to the application of leveling compounds. Apply leveling compound following manufacturer's instruction. Do not install wood flooring before the compound is fully cured.

Do not install over expansion joints or other moving joints in a concrete slab. Slab temperature must be between 55°F and 95°F.



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APPLICATION

Spread adhesive on the substrate while holding the Bona trowel at a 90° angle, using a smooth semicircular motion. Do not leave any puddles of adhesive. Set the flooring into the adhesive while the adhesive is still wet. At the start of the installation, and repeatedly throughout the installation, pull a freshly laid board to ensure proper coverage on substrate. This can be repeated a second time, mid-installation, to

ensure consistency. Do not allow more than 60 to 90 minutes of open time before setting flooring into the adhesive. (Up to 90 minutes at 70°F and 50% RH; higher humidity can decrease open time, lower humidity can increase open time). DO NOT SET FLOORING INTO ADHESIVE THAT HAS SKINNED OVER, REMOVE ADHESIVE AND REAPPLY.

COVERAGE

- **Bona 1500G Trowel (5/16" x 5/16" x 7/16")**
 - Engineered flooring only, up to 10" wide and 5/8" thick
 - Coverage: up to 50 sq. ft./gallon
 - Moisture protection: ≤ 6 lbs / 80% RH
- **Bona Engineered Flooring (EF) Trowel (3/16" x 7/32" x 25/64" V-notch)**
 - Engineered flooring only
 - Up to 7.5" wide and 5/8" thick
 - Coverage: up to 75 sq. ft./gallon
 - Moisture protection: ≤ 6 lbs / 80% RH (trowel only)
- **Bona 1000F Trowel (5/32" x 5/32" x 5/32" V-notch)**
 - Engineered flooring up to 5" width and 1/2" thick
- **Bona Engineered Flooring Plus (EFP) Trowel (5/16" x 5/16" x 3/4" V-notch)**
 - Engineered flooring only
 - Up to 7.5" wide and 5/8" thick
 - Coverage: up to 70 sq. ft./gallon
 - Moisture protection: ≤ 3 lbs / 75% RH (trowel only)
- - Acoustical underlayment pad
 - Coverage: up to 85 sq. ft./gallon
 - Moisture protection: ≤ 6 lbs / 80% RH (trowel only)
- - Coverage depends on board width, subfloor flatness, trowel angle & pressure
 - Two coats of a moisture barrier provide additional protection
 - Over radiant heat: maximum moisture protection is 6 lbs / 80% RH

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