



Bona[®] Adhesives

A Solid Foundation

Bona.com

Bona[®]



Reduce environmental impact
by choosing **Bona Adhesives**



A healthy home starts with a healthy floor

At Bona, the health and safety of our customers, both flooring professionals and homeowners, is our top priority. Bona Adhesives are the first in the industry to be GREENGUARD Gold Certified. When discussing the installation of your new wood floor, Bona provides a complete system for a healthier installation process.

Choosing the right adhesive

Within your home, floors make up the second largest surface area, only the walls comprise more square footage. So, choosing an adhesive that will provide a healthy, sustainable environment, both during installation and once complete, for your family is an important decision. When it is time to install hardwood floors, below are a few considerations of silane vs. urethane adhesives:

BONA SILANE WOOD FLOORING ADHESIVES	URETHANE WOOD FLOORING ADHESIVES
• GREENGUARD Gold certified for indoor air quality • VOC Free • Advanced technology to protect your investment and health • Will not etch the surface of prefinished flooring • Allows you to walk on your new floors sooner	• Releases airborne chemicals in vapor form • Omits high VOCs until cured*, which is a concern for families with pets • Greater environmental impact • Etches surface of prefinished flooring • Containers cannot be recycled

*Length of time dependent on each specific product

Bona® Adhesives Quick Facts

PRODUCT	ITEM NUMBER	DESCRIPTION
MOISTURE BARRIER/PRIMER		
Bona RollGuard™	BRRLG02000USB	One coat at 200-500 sq. ft. per 5 liters dependent of substrate. Use 1/4" nap roller. Wood or concrete.
Bona® R540	BR54002200USBO	One* to two coats at 400-600 sq. ft. per 5 liters dependent of substrate. Use 1/4" nap roller. Wood or concrete.
ADHESIVES		
Bona VERTICAL®	BR88000300USBO	10.4 oz. Cartridges; 12 per case.
Bona QUANTUM®	BR850T5600USBO	20 oz. Foil Tube; 12 per case.
Bona QUANTUM® FLOW	BR852065001	Pourable, 4-gallon Pail; Unlimited Moisture Protection*
Bona QUANTUM® R851	BR85106100USBO	3-gallon Pail.
Bona QUANTUM® T	BR85965001USBO	Thick Formula; 4-gallon Pail.
Bona R820™	BR820061001	3-gallon Pail; Economical silane-based adhesive for engineered flooring only.
APPLICATOR TOOL		
Bona Adhesive Applicator	AT0003023	Applicator
	Bona Adhesive Applicator Spare Parts (for AT0003023)	
	AT0003032	Front cap
	AT0003033	Barrel
	AT3003034	Replacement Rod
	AT0003035	Gripping Plate with Spring
	AT0003036	Piston Replacement Kit
TROWELS		
The standard Bona 1250G trowel delivers up to 60 sq. ft. per gallon and the Bona Moisture Barrier Plus (MBP) trowel delivers optimal moisture protection - up to 35 sq. ft. per gallon, 18 lbs, and 95% RH. *Unlimited with Bona QUANTUM® FLOW		
Bona Engineered Flooring (EF)	AT0003008	Up to 7" wide and 3/4" thick**. Engineered flooring only. 6lbs, 80% RH, trowel only.
Bona Engineered Flooring Trowel Plus (EFP)	AT0003037	Up to 7.5" wide and 5/8" thick**. Engineered flooring only. 3lbs, 75% RH, trowel only.
Bona 1000F	AT0003005	Up to 85 sq. ft. per gallon. Parquet (12"x12" max) Acoustical Underlayment Pad. 6lbs, 80% RH, trowel only.
Bona 1250G	AT0003006	Up to 60 sq. ft. per gallon. Up to 8" engineered and 5" solid. 15 lbs, 87% RH, trowel only.
Bona 1500G	AT0003007	Up to 50 sq. ft. per gallon. Engineered up to 16" wide, solids up to 9" wide. 15 lbs. 87% RH, trowel only.
Bona 1/4" x 1/4" V-Notch Trowel	AT0003046	Up to 35 sq. ft. per gallon. Engineered up to 16" wide, solids up to 9" wide. Maximum MP of adhesive, trowel only.*

*Refer to Technical Data Sheet for detailed instructions.

** R820 Maximum 7" wide and 5/8



Bona RollGuard™

Bona RollGuard™ - the superior, silane-based moisture barrier that sets new benchmarks in efficiency, user experience, and environmental consciousness. With just one coat that provides maximum moisture protection, you can say goodbye to prolonged waits while saving on material and labor. GREENGUARD Gold certified, low odor and VOC free puts your health and safety first.

- ✓ For use on Both Wood and Concrete Subfloors
- ✓ Rapid Dry Time
- ✓ Roll-able Application
- ✓ One-Coat Coverage
- ✓ Compatible with Bona System®
- ✓ GREENGUARD Gold Certified



Bona RollGuard™ Usage Guide

Application

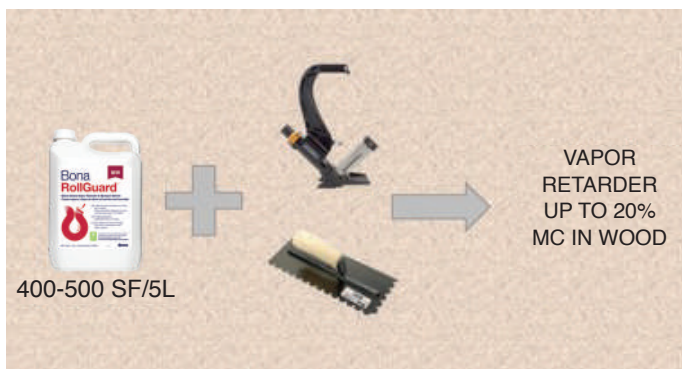
Bona RollGuard™, our newest moisture barrier and vapor retarder! With its GREENGUARD Gold, silane-based formula and quick dry time, you'll get maximum moisture protection on a variety of substrates. Just one coat of Bona RollGuard™ at 500 sq ft per jug slows down vapor transmission on wooden subfloors with up to 20% MC! Dealing with a concrete subfloor? No Problem! Bona RollGuard™'s unique formula provides the maximum moisture protection available in one easy application, and in most cases, still with only one coat at 400 sq ft per jug.*

Whether its a vapor retarded for a nail down installation, or a full-trowel spread on a concrete subfloor, choose Bona RollGuard™ for your next flooring project.



To learn more about application methods for Bona RollGuard™, scan the QR code.

Typical Wooden Subfloor Application



Typical Concrete Subfloor Application



Interested in Bona® R540, our polyurethane based moisture barrier and primer? **Scan to learn more.**



*Refer to Adhesive Technical Data Sheets for detailed instructions

Bona RollGuard™ FAQs

Q | When using Bona RollGuard™, is it necessary to put building or asphalt paper down before installing the flooring?

A | There is no need for these paper products as the Bona RollGuard™ application takes their place – and performs better! Unlike building/asphalt paper that can be torn before, during, and after installation, Bona RollGuard™ provides an uninterrupted layer of film protection. As a vapor retarder, Bona RollGuard™ protects the flooring from excess moisture coming up from any wooden subfloor, up to 20% moisture content, with a single coat when applied with a 1/4" nap roller at 400-500 sq/ft/container.

The NWFA states that for strip flooring, there should be no more than a 4% difference between the subfloor and the wood flooring moisture content. With plank flooring (which is 3" and wider), there should be no more than a 2% difference. With Bona RollGuard™, there's no need to wait for these specs to line up if the subfloor is 20% MC or less.

Q | If I've applied Bona RollGuard™ instead of asphalt paper, how long do I need to wait before I can start nailing in my floor?

A | You can commence nailing as soon as Bona RollGuard™ has dried, typically 2-3 hours; however, depending on the job size, the Bona RollGuard™ might be dry enough where you started your application, so you might be able to start nailing immediately! But always ensure you give it 2-3 hours dry time—tacky is ok, but you don't want any transfer of wet product to your fingers.

Q | Will my working chalk lines still be visible through the Bona RollGuard™ film?

A | Absolutely – we've tested both blue and red chalk lines to ensure they're still fully visible through the Bona RollGuard™ film (which will have a very faint red transparent tint when applied correctly). And, unlike asphalt paper which can move around on the subfloor, Bona RollGuard™ locks in your lines nice and crisp with no worries about misalignment or getting smudged.

Q | Does the wood still need to be acclimated?

A | Yes, there are no shortcuts around proper flooring acclimation. While Bona RollGuard™ can prevent issues from excess moisture from your substrate, you still need to acclimate the flooring properly to the expected living conditions. Two steps are always required: 1) Get the subfloor ready for the flooring, and 2) Get the flooring ready for the room.

Q | Once I open the Bona RollGuard™ jug, what's the pot life of the product?

A | Bona RollGuard™ is a one-component product without implicit pot life concerns. To keep any partial containers fresh, make sure they're tightly sealed with the original cap. Also, as a best practice for storage, keep them out of temperature extremes – not too hot or too cold.

Q | Can I apply Bona RollGuard™ over today's high-performance wood subfloor systems, like AdvanTech?

A | Yes, Bona RollGuard™ can be applied as a vapor barrier over these types of wooden subfloor systems, but they must first be abraded with 60 grit and then vacuumed before application due to their "sealed" nature, which reduces the porosity needed for good adhesion from any product.

Q | Can Bona RollGuard™ be used to encapsulate cutback adhesives?

- A |** It's best not to roll the dice on any adhesive residue still on the floor, much less old cutback adhesive. While your system of Bona RollGuard™ and Bona silane adhesive may stick great to these residues, most of these older-type adhesives become more brittle and adhere less with age (or stay sticky and gummy), so they may not be adhered very well to the substrate itself. The best practice is to mechanically remove all adhesive residue and scarify the surface before applying Bona RollGuard™.

Q | What's the best size roller to use when applying Bona RollGuard™?

- A |** No matter the width, make sure that it's a ¼" nap to ensure the correct application rate. While a standard 9" roller will be the most widely available, we've found that 18" rollers make the job go faster and help achieve the proper application rates due to their heavier weight when working with a thicker bodied product like Bona RollGuard™. Also, don't forget to replace your roller cover if too much dust and debris builds up or if it becomes difficult to work with (not rolling smoothly, dried material building up on the edges, etc.) on larger jobs.

Q | How do I know when my application of Bona RollGuard™ is dry?

- A |** The nature of silane means that it may still feel a bit rubbery and tacky once dry, but you shouldn't get any transfer to your fingers when touched. Give it the 2-3 hours of recommended dry time; test it in several areas with your hand; if it passes the transfer test, you're good to go!

Q | Once I've applied Bona RollGuard™ but can't install the flooring right away, is there any additional surface preparation needed if it has been sitting for a certain number of days?

- A |** The main concern with letting it sit for too long, which goes for any moisture barrier sealer you've applied, is cleanliness – pure and simple. You don't want dust and debris from other trades on the job or any other sources contaminating your install-ready surface. So, if you anticipate a long lag time before installing, once it's dried, you can cover the Bona RollGuard™ surface with a thin-mil poly sheeting to keep it clean, peeling it back section by section as you install.

Q | Should I level the subfloor before or after using RollGuard™?

- A |** If leveling is needed (3/16" in 10'), liberally broadcast clean, dry sand into the wet coat of Bona RollGuard™ and allow it to dry. "Dry" sand is very important here (common situation with bagged sand from Big Box – damp in the middle). The sand profile within the Bona RollGuard™ film provides the "bite" that the leveling compound requires for adhesion. Once dry, vacuum off any loose sand and apply your leveler according to the directions.

Q | Will Bona RollGuard™ foam up if applied too heavily or pools in nail holes, gouges, etc?

- A |** No, Bona RollGuard™ will not foam if applied too heavily or if it pools on the floor or in depressions. It maintains its solid, uninterrupted film protection without compromising moisture protection that you can get due to bubbles and foam occurring in a sealer.

Q | If the concrete slab has been hard-troweled or sealed and is glossy in appearance, can I apply Bona RollGuard™ directly?

- A |** No, the slab needs to be porous and should have a concrete surface profile of 3, approximately that of a light-broomed finish. A simple water drop test can be performed in several areas to test general porosity (does it soak in or stay beaded on top). Still, it might be necessary to diamond abrade or shot-blast the surface and perform an official porosity test (ASTM F3191) to determine if the surface is porous enough to apply Bona RollGuard™.

Q | How can I clean it off if I accidentally get Bona RollGuard™ on another surface?

- A |** First of all - Be Careful! Plan to protect other surfaces. It's almost impossible not to slop adhesive somewhere – it's just a messy product/process to work through. Bona RollGuard™ can be very difficult to remove due to its excellent penetration and adhesive properties (which makes it a fantastic product as a moisture barrier sealer). Since it's silane-based, you may be able to use mineral spirits combined with a plastic putty knife to carefully scrape and clean off the surface (though shadowing may occur because of penetration), mineral spirits and a steel-toothed comb on the carpet, etc.



See the benefits
of Bona® R540
here!



Prime Productions Hardwood Flooring

Bona® R540

Bona® R540 is a one-component, roll-on moisture membrane specially designed to mitigate vapor transmission on absorbent and non-absorbent subfloors, including gypsum-based underlayments. The polyurethane reactive primer is compatible with the entire Bona Adhesives System.

- ✓ Helps mitigate potential moisture issues, like cupping*, originating from below the membrane, in new and existing construction
- ✓ When used as a primer, one coat increases adhesion over resinous wood subfloor systems
- ✓ Can be used as a vapor retarder in place of felt paper for wooden subfloors up to 20% MC
- ✓ One coat can be used for damp proofing concrete subfloors up to 95% RH and 18 lbs*
- ✓ Dries fast allowing nail-down installation immediately
- ✓ Unlimited when used with Bona QUANTUM® FLOW*
- ✓ No more tears in paper or seams to be concerned with – continuous film offers more uniform coverage and moisture protection
- ✓ Easy to apply – rolls on
- ✓ Suitable for radiant heat underlayment systems*



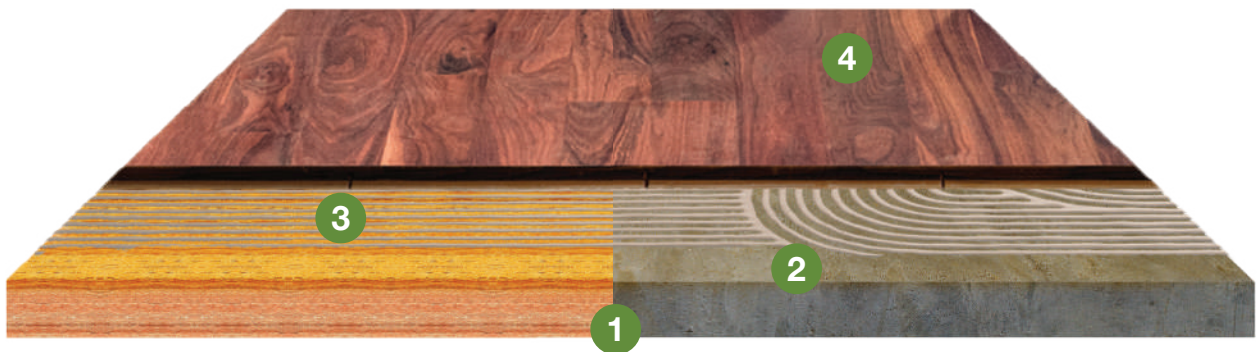
*Refer to individual product TDS for detailed information.

Bona® R540 Usage Guide

Application

As a primer, roll Bona® R540 Moisture Barrier/Primer evenly on the substrate. **Used as a primer, a 1/4" nap mohair roller is recommended.** Avoid the formation of puddles, or heavy spots. Allow to dry to a transparent film. If used as a moisture barrier over cementitious substrates, a second coat can be applied within 24 hours.

When used as a vapor retarder for nail down installations only, allow Bona® R540 Moisture Barrier/Primer to dry 1-2 hours or when dry to the touch. When using Bona® R540 in conjunction with Bona QUANTUM® R851, Bona QUANTUM® FLOW, Bona QUANTUM® T, and Bona QUANTUM® sausages, whether as a nail-glue assist or full trowel, dry time of Bona® R540 is a minimum 16 hours and a maximum of 48 hours. For Bona VERTICAL®, a minimum of 4 hours and maximum of 48 hrs. Higher temperatures and higher relative humidity may decrease dry times while lower temperatures and lower relative humidity will increase dry times.



1. Plywood **or** concrete subfloor
2. Bona® R540 Moisture Barrier/Primer
3. Bona Adhesives: Bona QUANTUM® R851 **or** Bona QUANTUM® FLOW **or** Bona QUANTUM® T
4. Flooring

Bona® R540 Moisture Barrier & Primer FAQs

Q | Does building paper have to be used?

A | No - it's not required.

Q | If only nailing and not using the adhesive, how long is one required to wait?

A | It dries fast and you can start within 1-2 hours.

Q | Are chalk lines still visible?

A | Yes - unlike building paper that can move around, Bona® R540 locks them in.

Q | Does the wood still need to be acclimated?

A | Yes - best practices should always be followed.

Q | What is the pot life?

A | Bona® R540 is a one-component product with no pot-life issues.

Q | What if the subfloor is a resinous wood subfloor system?

A | Bona® R540 is particularly useful on resinous wood subfloor systems. It acts as a primer for increased adhesion.

Q | When using Bona® R540, is it necessary to use building/felt paper under the flooring?

A | No - unlike building/felt paper that can be torn during installation, Bona® R540 provides a continuous layer of film protection. The liquid moisture barrier/primer protects up to 20% moisture with one coat on any wood subfloor and can be applied with a 1/4" nap roller. The NWFA states that for strip flooring there should be no more than 4% difference between subfloor moisture and wood flooring moisture. With plank flooring (which is 3" and wider) there should be no more than 2% difference. On concrete, two coats of Bona® R540 will protect up to 95% RH and 18 lbs.



**See the benefits
of Bona® R540
here!**



Bona **QUANTUM**® FLOW

Bona QUANTUM FLOW® is a pourable adhesive that has outstanding “green-grab” properties and helps to cover a larger surface area in less time without causing fatigue. Quick and efficient, flooring can be ready in as little as one day for furniture and foot traffic.

- ✓ **UNLIMITED** moisture protection without testing used as when directed*
- ✓ Pourable – easy to apply and spread standing up
- ✓ Unsurpassed ridge stability provides maximum adhesive transfer
- ✓ Excellent green grab means the flooring stays in place
- ✓ Easy to clean – will not harm or etch the finish on pre-finished floors; will not stain hands
- ✓ VOC Free
- ✓ GREENGUARD Gold Certified



*Use only as directed. Refer to individual product TDS for detailed information.



Bona **QUANTUM**® R851

Bona **QUANTUM**® R851 is the industry-leading, one-component, silane-based wood flooring adhesive that provides exceptional green grab strength. Its elastomeric characteristics allow the adhesive to move with the wood as it expands and contracts over the life of the floor.

- ✓ Easy to apply - no arm fatigue
- ✓ Excellent green grab means the flooring stays in place
- ✓ Up to 18 lbs. or 95% RH when used as directed*
- ✓ Unsurpassed ridge stability provides maximum adhesive transfer
- ✓ Easy to clean - will not harm the finish on pre-finished floors; will not stain hands
- ✓ VOC Free
- ✓ GREENGUARD Gold Certified



*Use only as directed. Refer to individual product TDS for detailed information.



Bona **QUANTUM® T**

Bona QUANTUM® T is a one-component, moisture-curing, water and solvent-free silane-based wood flooring adhesive that helps reduce voids caused by uneven substrates. Bona QUANTUM® T provides outstanding adhesion to a variety of surfaces, and allows for the natural movement of wood flooring. Thicker formula mimics a traditional urethane feel.

- ✓ Easy to apply and clean
- ✓ Excellent green grab means the flooring stays in place
- ✓ Up to 18 lbs. or 95% RH when used as directed*
- ✓ Exceptional ridge stability
- ✓ VOC Free
- ✓ GREENGUARD Gold Certified



*Use only as directed. Refer to individual product TDS for detailed information.



Bona **VERTICAL**®

Bona VERTICAL® is a firm-elastic, silane-based construction adhesive. With an extremely high initial bonding strength and rapid setting formulation, it is perfect for horizontal and vertical applications alike. The bonding process can be accelerated by lightly misting the substrate prior to application, and/or lightly misting the adhesive once applied.

- ✓ Rapid-set
- ✓ Can be applied using a Bona Adhesive Applicator or a 10 oz. caulking applicator
- ✓ Adhesion to more substrates including metal
- ✓ Great for trim, starter rows, treads, risers, stringers, balusters, stairs, vertical applications and wall treatments
- ✓ Easily removed from prefinished surfaces
- ✓ Increased holding power
- ✓ VOC Free
- ✓ GREENGUARD Gold Certified





Bona **QUANTUM**®

Bona **QUANTUM**® sausages offer a one-component, moisture curing, water and solvent-free, silane-based adhesive for wood floors. It provides outstanding adhesion to a variety of surfaces, and allows for the natural expansion and contraction of wood flooring.

- ✓ Eliminates homeowners biggest complaint of a wood floor creaking & popping
- ✓ Perfect for prefinished floors due to ease of cleanup days later
- ✓ Specially designed for hardwood floors unlike all-purpose adhesives which can crystallize over time, not allowing for the wood's natural movement
- ✓ Perfect alternative to face nailing close-out rows, board replacements, stair treads and risers, and trim applications
- ✓ Excellent initial green grab means the flooring stays in place

Use with the Bona **QUANTUM**® Applicator:

- ✓ Lightweight and comfortable
- ✓ Easy to operate
- ✓ Leaves no mess or waste when dispensing





Bona R820™

NEW

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 installation with low movement. The adhesive offers a long open time up to 90 minutes and allows for easy trowel application. GREENGUARD Certified for indoor air quality.

- ✓ Easy to apply – no arm fatigue
- ✓ Good ridge stability for excellent adhesive transfer
- ✓ Easy to clean – will not harm or etch the finish on pre-finished floors; will not stain hands
- ✓ VOC Free
- ✓ GREENGUARD Certified
- ✓ Suitable for engineered floors



*Use only as directed. Refer to individual product TDS for detailed information.

Bona QUANTUM® FAQs

Q | Why use Bona QUANTUM® Adhesive Sausages?

- A |** Since its development, silane technology has increasingly been specified by the A&D community.
- 1)** Bona QUANTUM® adhesive has exceptional shear strength for today's wide plank flooring.
 - 2)** Despite this improved shear strength, silane adhesives do not stick to or harm the surface of a prefinished wood floor. Urethane-based adhesives are known to be extremely difficult to remove from the surface. This etching of the finish can result in sheen differences. Bona QUANTUM® can be easily removed without etching the finish, even three days later.

Q | Why not use an off the shelf all-purpose type of adhesive?

- A |** General construction and all-purpose adhesives are not specifically designed for hardwood floors. These adhesives do not have the necessary elongation built into them for the expansion/contraction necessary for wood floor installations. An adhesive must allow for this natural movement and not be too rigid, otherwise any expansion spacing will not have the flexibility needed to accommodate seasonal changes in relative humidity or moisture content. Multi-purpose adhesives may also crystallize over time, becoming susceptible to forces of shear, resulting in the bond being compromised.

Q | Engineered floors are stable, so why is a nail and glue assist recommended?

- A |** Over the years, the National Wood Flooring Association (NWFA) has seen a huge spike in “noisy, squeaky, loud floors”, and now includes glue-assisted nail-down instructions in the Wood Flooring Installation Guidelines.
- 1)** Installers using lighter gauge staples on some thin engineered flooring products could be inadvertently diminishing the holding power.
 - 2)** Today's subfloors are subjected to weather and numerous trade activity before the flooring installer even arrives. This can pose a challenge to traditional fastening methods.
 - 3)** The tongue on thin engineered flooring may not be strong enough to hold the flooring in place, especially in high traffic areas. Bona QUANTUM® has the necessary shear and tensile strength for these demanding situations.

Q | Why is it important to glue assist with wide plank flooring?

- A |** The wider the plank, the less fasteners per square foot to secure the floor. The NWFA recommends using adhesive for flooring > 5". Some installers are using adhesives on planks 4" or wider, with more flooring manufacturers recommending this as well. A glue assist will keep the floor in place and less likely for a call back.

Q | What is the benefit of a nail/glue assist when the subfloor is in good shape and the moisture readings are in an acceptable range?

- A |** The trend in the industry is continuing to move towards wider width planks. This dimensional increase in material warrants not only relying on fasteners along with the engagement of the tongue and groove. Even the slightest lateral movement can cause squeaking and popping. No homeowner will be satisfied with creaking floors and the remedy is often top nailing and/or drilling holes in their new floor to shoot epoxy in the face of the boards.

Q | Isn't it expensive to nail AND glue?

A | Compared to full troweling, it is very economical. Installers will use almost 100% of every tube. Unlike other adhesive in caulking tubes, it does not harden. Even weeks later, simply pull out the plug of adhesive in the nozzle and go to work. When you consider the benefits and fewer call backs, it is a great investment.

Q | How should Bona QUANTUM® be applied? Serpentine (sinewave) pattern? Parallel stripes pattern? Ends and grooves pattern? Lengthwise parallel stripes?

A | Bona finds that installer preferences include all of the above techniques. The serpentine pattern is performed approximately twice the width of the board. The parallel stripes pattern may run perpendicular or diagonally every 6-8". The ends and grooves pattern is placed within 1" from both ends of the board and along the full length of the groove side of the board. The lengthwise parallel stripes pattern is placed within 1" of each long side edge and down the middle of the board.

Q | What is the best way to remove and clean adhesive from the board face?

A | Many installers simply wait until Bona QUANTUM® dries and then remove the spot with a plastic putty knife and/or microfiber cloth. Odorless mineral spirits can also be used when the adhesive is wet.

Q | Is Bona QUANTUM® recommended for stairs and risers?

A | Yes - it is an excellent choice. Stairs are high traffic areas that can benefit from the exceptional shear strength of Bona QUANTUM®.

Q | Does Bona QUANTUM® bond to metal?

A | Yes - it has an excellent bond to metal which allows for greater diversity in staircase installations. Just remove any contaminants including grease or lubricants.

Q | Will Bona QUANTUM® bond to a radiant heat floor or gypsum-based concrete?

A | Yes - lightly abrade the gypsum-based concrete first for a good bond.

Q | Where are Bona® adhesives made?

A | Bona proudly makes Bona QUANTUM® R851, Bona QUANTUM® FLOW, Bona QUANTUM® T and Bona QUANTUM® at our manufacturing facility in Monroe, N.C. Bona VERTICAL®, Bona RollGuard™, and Bona® R540 are made at our manufacturing site in Limburg, Germany.



Engineered To Reduce Impact Noise

Resistance to Impact Noise

High heels, scampering dogs, dropped objects. Sound is transmitted when hard objects interact with hardwood floors. Without anything to absorb them, sound waves can permeate the building envelope. Suppressing that sound is incredibly important in residential homes, office buildings and multi-family condominiums.

Bona® adhesives are tested in accordance with the Impact Insulation Class (IIC) standard using the measurement procedure ASTM E492-09 (2016) as well as ASTM E90-09 (2016) for Sound Transmission Class (STC). This standard measures the floor's resistance to the transmission of impact noise, such as those mentioned above. The higher the rating the better the sound absorption. The Uniform Building Code (UBC) requires a rating of 50.

PRODUCT	FLOOR TYPE	MAX SHEAR/ ELONGATION	MOISTURE	COVERAGE	SOUND REDUCTION RATING	PACKAGING
Bona QUANTUM® R851 	Solid or Engineered Prefinished or Unfinished Flooring ✓ Up to 16" width (9" for solid) ✓ Up to 3/4" thick	340 psi/ 180%-220%	Up to 15 lbs or 87% RH, 4% Tramex or 2.5% CM	Up to 85 square feet/gallon depending on trowel notch requirements	Meets ASTM E90-09 (2016)/ E413-16 STC and ASTM E492-09 (2016) e1/ASTM E989-21 IIC, with ceiling; 63 STC and 69 IIC on 6" slab.	3-gallon container
	When used with 1/4" x 1/4" v-notch trowel		Up to 18 lbs or 95% RH, 6% Tramex or 5% CM	Up to 35 square feet/gallon		
Bona QUANTUM® FLOW 	Solid or Engineered Prefinished or Unfinished Flooring ✓ Up to 16" width (9" for solid) ✓ Up to 3/4" thick	340 psi/ 180%-220%	UNLIMITED Moisture protection when used as directed. See TDS for details.	Up to 85 square feet/gallon depending on trowel notch requirements	Meets ASTM E90-09 (2016)/ E413-16 STC and ASTM E492-09 (2016) e1/ASTM E989-21 IIC with ceiling; 60 STC, 67 IIC on 6" slab and 62 STC, 70 IIC on 8" slab	4-gallon container
	When used with 1/4" x 1/4" v-notch trowel			Up to 35 square feet/gallon		
Bona QUANTUM® T 	Solid or Engineered Prefinished or Unfinished Flooring ✓ Up to 16" width (9" for solid) ✓ Up to 3/4" thick	335 psi/ 250%	Up to 15 lbs or 87% RH, 4% Tramex or 2.5% CM	Up to 85 square feet/gallon depending on trowel notch requirements	Meets ASTM E90-09 (2016)/ E413-16 STC and ASTM E492-09 (2016) e1/ASTM E989-21 IIC, with ceiling; 63 STC and 69 IIC on 6" slab.	4-gallon container
	When used with 1/4" x 1/4" v-notch trowel		Up to 18 lbs or 95% RH, 6% Tramex or 5% CM	Up to 35 square feet/gallon		
Bona QUANTUM® Adhesive 	Solid or Engineered Prefinished or Unfinished Flooring ✓ Replaces top nailing on close-out rows and board replacements ✓ Supplemental fastening on wide plank boards, stairs, treads and risers	340 psi/ 180%-220%	N/A	Up to 60 linear feet/tube with a 1/4" bead	—	20 oz. foil tube
Bona VERTICAL® 	Great for Trim, Starter Rows, Treads, Risers, Stringers, Balusters, Vertical Applications and Wall Treatments	247 psi/ 150%	N/A	Up to 30 linear feet/tube with a 1/4" bead	—	10.4 oz. cartridge
Bona R820™ 	Solid or Engineered Prefinished or Unfinished Flooring ✓ Up to 7" width ✓ Up to 5/8" thick	145 psi/ 100%	Up to 6 lbs or 80% RH	Up to 85 square feet/gallon depending on trowel notch requirements	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	3-gallon container

Bona® Adhesives Performance - Ridge Stability

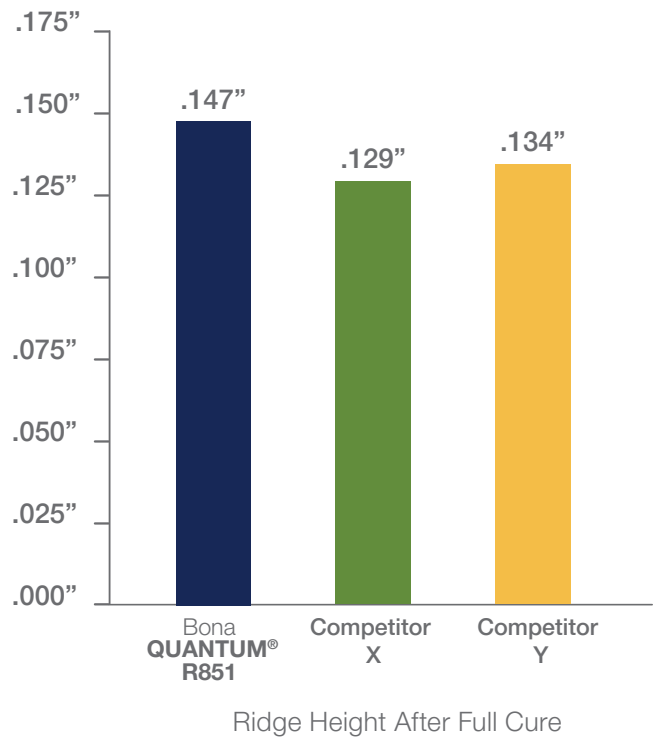
Bona® Adhesives are engineered to have exceptional open time and greater ridge stability to give installers increased working times even in challenging conditions. With these features, **Bona QUANTUM® R851** helps to mitigate concerns about hollow spots.

Key Metrics vs. Competition

Bona is engineered to have superior ridge stability and less slumping than competitor products, as well as extended open times. Together, this allows for maximum adhesive transfer, and better workability.

RIDGE HEIGHT

1250G Trowel Using 67° Tilt
High Heat (90°F) and High Humidity (88%)



OPEN TIME

High Heat (90°F) and High Humidity (88%)*

PRODUCT & TROWEL	15 MINUTE DWELL	30 MINUTE DWELL	45 MINUTE DWELL	90 MINUTE DWELL
Bona QUANTUM® R851 1250G Trowel	100%	100%	96%	62%
Bona QUANTUM® R851 1500G Trowel	100%	100%	92%	57%
Competitor X 1/4" x 1/4" x 7/16" Generic Trowel	100%	87%	87%	12%
Competitor Y 1/4" x 1/4" x 1/4" Square Notch Trowel	14%	0%	0%	0%

* (%) - The amount of substrate shear that occurred during board removal after 24 hours.

Bona QUANTUM® Adhesives & Gypsum-Based Concrete

It's known that wood flooring installers are told to use a primer when gluing over gypsum-based concrete. However, there can be compatibility issues with all the various primers on the market.

OUR RECOMMENDATION

for gypsum-based concrete floors:

1. The substrate must be dry.
2. Abrade gypsum-based concrete substrate using a Bona Double-Sided Sanding Disc at 60-grit or higher.
3. Vacuum and apply Bona QUANTUM® R851, Bona QUANTUM® T, or Bona QUANTUM® FLOW, then install the flooring.



The advantage to this recommendation:

- **Less cost** - no primer is needed
- **Less time** - no need to wait for primer to dry

Why is it recommended to abrade the floor instead of using a primer?

- When gypsum-based concrete is poured, the gypsum settles to the bottom and the more soluble ingredients—which create adhesion issues—tend to float to the top. Abrading the floor is an effective method to remove the more soluble ingredients, exposing more gypsum at the surface.
- Gypsum-based concrete substrates tend to be very dusty, even after thorough vacuuming. Primers are typically recommended because many types of adhesives do not have the ability to “wet-out”, due to dust on the surface, thereby creating an adhesion issue. Bona QUANTUM® Adhesives are the exception! Through extensive testing, Bona's R&D team has concluded that abrasion and thorough vacuuming prior to applying Bona QUANTUM® Adhesives is all you'll ever need, no primer necessary!

What psi rating is needed for installing hardwood over gypsum-based concrete?

2000 psi for engineered flooring and 2500 psi for solid hardwood is the recommendation from most flooring manufacturers. NWFA recommends a minimum of 3000 psi for engineered flooring and solid hardwood.



Can I apply a moisture barrier after abrading gypsum-based concretes if there are moisture concerns?

Yes - Bona RollGuard™ and Bona R540® are one-component roll-on moisture membranes specially designed to mitigate vapor transmission on absorbent and non-absorbent subfloors. The polyurethane reactive primer is compatible with the entire Bona Adhesive System.



Is this information the same for a gypsum based concrete floor that has a radiant heat system underneath it?

Yes - this would apply—just make sure they use/cycle the radiant heat system prior to installation.

How do I know if the gypsum-based concrete is dry?

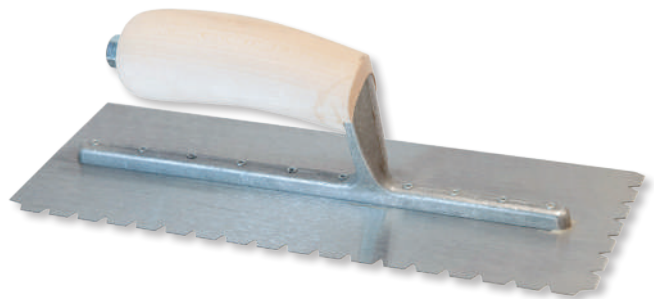
According to one manufacturer, Maxxon, a 3/4" thick pour is fully dry and ready for floor installation within 5 to 7 days, when properly ventilated and temperatures are maintained above 50° F.



Bona® Trowels

The value of using Bona® adhesives is enhanced by using the correct trowel for the job. A tough and durable family of trowels, these tools are specifically designed to work with Bona® adhesives — optimizing the installation. Get the right coverage for yourself and the job by choosing a Bona trowel.

-
- ✓ Specifically designed for Bona® adhesives
 - ✓ High quality steel
 - ✓ Optimum installation
 - ✓ Unique shape
 - ✓ Right coverage
 - ✓ Right performance
 - ✓ Peace of mind



Bona QUANTUM® R851 & Bona QUANTUM® T Trowel Selection for Moisture Control

≤ 18 lbs. (Calcium Chloride)	  7/16" V-notch w/ MBP spacer 1/4," x 1/4," V-notch Bona® Moisture Barrier Plus (MBP) Clip-on Trowel and Bona® 1/4" x 1/4" V-notched Trowel - Solids up to 9" wide and 3/4" thick - Engineered up to 16" wide and 3/4" thick - Up to 35 square feet per gallon** 95% RH and 18 lbs. of moisture protection	≤ 95% RH (RH of the Concrete)
	 5/16" x 5/16" x 7/16" V-notch Bona® 1500G Trowel - Solids up to 9" wide and 3/4" thick - Engineered up to 16" wide and 3/4" thick - Up to 50 square feet per gallon** 87% RH and 15 lbs. (Back-Trowel Method) - Minimum 85% RH and 12 lbs. of moisture protection (Trowel only) 95% RH and 18 lbs. of moisture protection (When used over one coat of Bona RollGuard™ or Bona R540*)	
	 1/4" x 1/4" x 7/16" V-notch Bona® 1250G Trowel - Solids up to 5" wide and 3/4" thick - Engineered up to 8" wide and 3/4" thick - Up to 60 square feet per gallon** 87% RH and 15 lbs. (Back-Trowel Method) - Minimum 85% RH and 12 lbs. of moisture protection (Trowel only) 95% RH and 18 lbs. of moisture protection (When used over one coat of Bona RollGuard™ or Bona R540*)	
≤ 6 lbs. (Calcium Chloride)	 3/16" x 7/32" x 25/64" V-notch Bona® Engineered Flooring (EF) Trowel - Engineered flooring only – 7" wide and 3/4" thick - Up to 75 square feet per gallon** - Maximum 6 lbs / 80% RH (Trowel only)***	≤ 80% RH (RH of the Concrete)
	 5/32" x 5/32" x 5/32" V-notch Bona® 1000F Trowel - Parquet up to 12" x 12"; over smooth substrates; Acoustical Underlayment Pad - Up to 85 square feet per gallon** - Maximum 6 lbs / 80% RH (Trowel only)***	
≥ 3 lbs. (Calcium Chloride)	 5/16" x 5/16" x 3/4" V-notch Bona® Engineered Flooring Plus (EFP) Trowel - Engineered flooring only – 7 1/2" wide and up to 5/8" thick - Up to 70 square feet per gallon** - Maximum 3 lbs / 75% RH (Trowel only)***	≤ 75% RH (RH of the Concrete)
	Vapor Retarder According to NWFA, "a vapor retarder is recommended anytime solid 3/4" wood is installed over concrete. A vapor retarder is required for installation over concrete with a calcium chloride reading greater than 3 pounds (and) a relative humidity reading greater than 75%."	
	Suggested notched trowel for maximum coverage. For optimum spread rate hold trowel at a 90° angle.	

Suitable Substrates and Compatible Products: Concrete, gypsum-based leveling compounds, Portland cement-based leveling compounds, rubber, cork, plywood, OSB, Warmboard®, ceramic, terrazo, metal, cement board (Fiberock®, Durock®, Permabase®, Hardiebacker®), radiant heat flooring systems, and many other products. If using a leveling compound, two coats of a dedicated Bona moisture barrier are required prior to the installation of the leveling compound. **See individual product technical data sheets for detailed information.**

*Refer to individual product Technical Data Sheets for detailed information. **Coverage rates are dependent of board width and subfloor flatness (must be flat within 3/16" over 10 foot radius), substrate porosity (recommended CSP 3), pressure and angle of trowel during application. ***two coats of a dedicated moisture barrier will provide additional protection; see individual product Technical Data Sheets for detailed information.

Contact Your Bona Adhesive Manager or Visit Bona.com For More Details

Bona QUANTUM® FLOW Trowel Selection

UNLIMITED MP WITHOUT TESTING*	 7/16" V-notch w/ MBP spacer 1/4," x 1/4," V-notch	Bona® Moisture Barrier Plus (MBP) Clip-on Trowel and Bona® 1/4" x 1/4" V-notched Trowel	UNLIMITED MP WITHOUT TESTING*
	- Solids up to 9" wide and 3/4" thick - Engineered up to 16" wide and 3/4" thick	- Up to 35 square feet per gallon** - Unlimited Moisture Protection*	
≤ 18 lbs. (Calcium Chloride)	 5/16" x 5/16" x 7/16" V-notch	Bona® 1500G Trowel	≤ 95% RH (RH of the Concrete)
	- Solids up to 9" wide and 3/4" thick - Engineered up to 16" wide and 3/4" thick - Up to 50 square feet per gallon** 87% RH and 15 lbs. (<i>Back-Trowel Method</i>)	- Minimum 85% RH and 12 lbs. of moisture protection (<i>Trowel only</i>) - Unlimited Moisture Protection* (<i>When used over one coat of Bona RollGuard™ or Bona R540®</i>)	
≤ 6 lbs. (Calcium Chloride)	 1/4" x 1/4" x 7/16" V-notch	Bona® 1250G Trowel	≤ 80% RH (RH of the Concrete)
	- Solids up to 5" wide and 3/4" thick - Engineered up to 8" wide and 3/4" thick - Up to 60 square feet per gallon** 87% RH and 15 lbs. (<i>Back-Trowel Method</i>)	- Minimum 85% RH and 12 lbs. of moisture protection (<i>Trowel only</i>) 95% RH and 18 lbs. of moisture protection (<i>When used over one coat of Bona RollGuard™ or Bona R540®</i>)	
≥ 3 lbs. (Calcium Chloride)	 3/16" x 7/32" x 25/64" V-notch	Bona® Engineered Flooring (EF) Trowel	≤ 75% RH (RH of the Concrete)
	- Engineered flooring only – 7" wide and 3/4" thick - Up to 75 square feet per gallon**	Maximum 6 lbs / 80% RH (<i>Trowel only</i>)***	
	 5/32" x 5/32" x 5/32" V-notch	Bona® 1000F Trowel	
	Parquet up to 12" x 12"; over smooth substrates; Acoustical Underlayment Pad	- Up to 85 square feet per gallon** - Maximum 6 lbs / 80% RH (<i>Trowel only</i>)***	
	 5/16" x 5/16" x 3/4" V-notch	Bona® Engineered Flooring Plus (EFP) Trowel	
	- Engineered flooring only – 7 1/2" wide and up to 5/8" thick - Up to 70 square feet per gallon**	Maximum 3 lbs / 75% RH (<i>Trowel only</i>)***	
Vapor Retarder		According to NWFA, "a vapor retarder is recommended anytime solid 3/4" wood is installed over concrete. A vapor retarder is required for installation over concrete with a calcium chloride reading greater than 3 pounds (and) a relative humidity reading greater than 75%."	
Suggested notched trowel for maximum coverage. For optimum spread rate hold trowel at a 90° angle.			

Suitable Substrates and Compatible Products: Concrete, gypsum-based leveling compounds, Portland cement-based leveling compounds, rubber, cork, plywood, OSB, Warmboard®, ceramic, terrazo, metal, cement board (Fiberock®, Durock®, Permabase®, Hardiebacker®), radiant heat flooring systems, and many other products. If using a leveling compound, two coats of a dedicated Bona moisture barrier are required prior to the installation of the leveling compound. **See individual product technical data sheets for detailed information.**

*Refer to individual product Technical Data Sheets for detailed information. **Coverage rates are dependent of board width and subfloor flatness (must be flat within 3/16" over 10 foot radius), substrate porosity (recommended CSP 3), pressure and angle of trowel during application. ***two coats of a dedicated moisture barrier will provide additional protection; see individual product Technical Data Sheets for detailed information.

Contact Your Bona Adhesive Manager or Visit [Bona.com](https://bona.com) For More Details

Adhesive Product Reference Chart

PRODUCT	Bona QUANTUM® R851	Bona QUANTUM® FLOW	Bona QUANTUM® T
RECOMMENDED USES	Commercial and residential. Use with solid or engineered prefinished and unfinished flooring; on, above or below grade. May be used on both wood and concrete substrates.	Commercial and residential. Use with solid or engineered prefinished and unfinished flooring; on, above or below grade. May be used on both wood and concrete substrates.	Commercial and residential. Use with solid or engineered prefinished and unfinished flooring; on, above or below grade. May be used on both wood and concrete substrates.
VOC G/L	VOC free	VOC free	VOC free
COVERAGE RATE/GAL	See "Trowel Notch Requirements" for spread rate	See "Trowel Notch Requirements" for spread rate	See "Trowel Notch Requirements" for spread rate
APPLICATOR	Trowel	Trowel	Trowel
COATS/FLOOR	N/A	N/A	N/A
COLOR WHEN DRY	Cream	Cream	Cream
SIZES AVAILABLE	3 Gallon	4 Gallon	4 Gallon
DRY TIME	N/A	N/A	N/A
CURE TIME	Light foot traffic - 8-10 hours Furniture, fixtures - 12-24 hours Unfinished floor sanding - after 24 hours	Light foot traffic - 8-10 hours Furniture, fixtures - 12-24 hours Unfinished floor sanding - after 24 hours	Light foot traffic - 8-10 hours Furniture, fixtures - 12-24 hours Unfinished floor sanding - after 24 hours
CLEAN UP	Clean adhesive from the surface of the floor immediately, while wet. Use mineral spirits on a clean white cloth.	Clean adhesive from the surface of the floor immediately, while wet. Use mineral spirits on a clean white cloth.	Clean adhesive from the surface of the floor immediately, while wet. Use mineral spirits on a clean white cloth.
MOISTURE PROTECTION	Moisture protection up to 18 lbs or 95% RH when used as directed	Unlimited moisture protection when used as directed	Moisture protection up to 18 lbs or 95% RH when used as directed
SOUND RATING	Meets ASTM E90-09 (2016)/ E413-16 STC and ASTM E492-09 (2016) e1/ASTM E989-21 IIC, with ceiling	Meets ASTM E90-09 (2016)/ E413-16 STC and ASTM E492-09 (2016) e1/ASTM E989-21 IIC, with ceiling	Meets ASTM E90-09 (2016)/ E413-16 STC and ASTM E492-09 (2016) e1/ASTM E989-21 IIC, with ceiling
OPEN TIME	Up to 60 minutes @ 70° F and 50% RH*	Up to 60 minutes @ 70° F and 50% RH*	Up to 60 minutes @ 70° F and 50% RH*

*Dependent of temperature and humidity. Higher humidity decreases open time while lower humidity increases open time.

Adhesive Product Reference Chart cont.

	NEW		
PRODUCT	Bona R820™	Bona QUANTUM® Sausages	Bona VERTICAL®
RECOMMENDED USES	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 installation 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.	Replaces top nailing on close-out rows and board replacements. Supplemental fastening for wide plank boards when nailing and gluing are needed. Ideal for projects where traditional fastening isn't practical – hard to reach areas, radiant heat floor. Use with solid or engineered prefinished and unfinished flooring; on, above, or below grade. May be used on both wood and concrete substrate. Commercial and residential.	With an extremely high initial bonding strength and rapid setting formulation, it is perfect for horizontal and vertical applications. Can be used on multiple residential and commercial substrates. Interior use only.
VOC G/L	VOC free	VOC free	VOC free
COVERAGE RATE/GAL	Refer to Bona R820 TDS or Label for Trowel Notch Requirements	60 linear feet per tube with 1/4" bead	30 lineal feet per tube with a 1/4" bead
APPLICATOR	Trowel	Bona Adhesive Applicator	Bona Adhesive Applicator or 10 oz. caulk applicator
COATS/FLOOR	N/A	N/A	N/A
COLOR WHEN DRY	Tan	Cream	Cream
SIZES AVAILABLE	3 Gallon	20.3 oz	10.4 oz
DRY TIME	N/A	N/A	4-6 Hours
CURE TIME	Light foot traffic - 8-10 hours Furniture, fixtures - 12-24 hours Unfinished floor sanding - after 24 hours	Light foot traffic - 8-10 hours Furniture, fixtures - 12-24 hours Unfinished floor sanding - after 24 hours	12 hours
CLEAN UP	Clean adhesive from the surface of the floor immediately, while wet. Use mineral spirits on a clean white cloth.	Clean adhesive from the surface of the floor immediately, while wet. Use mineral spirits on a clean white cloth.	Clean adhesive from the surface of the floor immediately, while wet. Use mineral spirits on a clean white cloth.
MOISTURE PROTECTION	Moisture protection up to 6 lbs or 80% RH when used as directed	N/A	N/A
SOUND RATING	Meets ASTM E90-09 (2016)/ E413-16 STC and ASTM E492-09 (2016) e1/ASTM E989-21 IIC, with ceiling	N/A	N/A
OPEN TIME	Up to 90 minutes @70°F and 50% RH*	Up to 60 Minutes @ 70° F and 50% RH*	Open time of 10 minutes (5 minutes when misted with water)

*Dependent of temperature and humidity. Higher humidity decreases open time while lower humidity increases open time.

Moisture Barriers Product Reference Chart

PRODUCT	Bona RollGuard™	Bona® R540
RECOMMENDED USES	RollGuard™ is a single component, one-coat, silane-based moisture barrier designed to improve the installers experience when mitigating moisture on concrete and wooden subfloor systems. This Silane moisture barrier is compatible with the entire Bona System.	A one-component roll-on moisture membrane specially designed to mitigate vapor transmission on absorbent and non-absorbent subfloors. The polyurethane reactive primer is compatible with the entire Bona Adhesive System.
VOC G/L	VOC free	VOC free
COVERAGE RATE/GAL	One coat at 200 to 500 square feet per 5 liters*	One to two coats, each at 400 square feet per 5 liters*
APPLICATOR	18" Roller - 1/4"-nap shed resistant roller on an 18" yoke roller frame	Roller - 1/4" nap mohair or other shed resistant roller
COATS/FLOOR	1	1-2
COLOR WHEN DRY	Transparent Red	Transparent Brown
SIZES AVAILABLE	5-Liter	5-Liter
DRY TIME	2-3 Hours	1-16 hours (see product application instructions)
CURE TIME	N/A	N/A
CLEAN UP	Mineral spirits when wet. Difficult to remove once dried	Mineral spirits when wet. Difficult to remove once dried
MOISTURE PROTECTION	18 lbs and 95% RH when applied at 200-250 SF / 5L. Unlimited moisture protection when used with Bona QUANTUM FLOW.*	18 lbs and 95% RH with two coats applied at 400 SF / 5L. Unlimited moisture protection when used with Bona QUANTUM FLOW.*
SOUND RATING	N/A	N/A
OPEN TIME	N/A	N/A

*See individual TDS for detailed information

It all comes down to a solid foundation

History

Bona® silane adhesives, which are not reliant on the MS Polymer formula seen in standard adhesive products, were introduced to the market in 2004. Bona moved to a proprietary formula because it is the future of wood floor adhesives. It will not etch the finish of prefinished flooring and provides incredible moisture protection, shear strength and coverage rates. This ensures Bona can guarantee the highest level of quality. Bona adhesives work over a variety of subfloor materials, and don't require a sealer or primer for adhesion; saving you time and labor without sacrificing top-quality performance. We proudly make Bona QUANTUM® R851, Bona QUANTUM® FLOW, Bona QUANTUM® T, Bona QUANTUM® and Bona R820™ adhesives in the United States.

The perfect solution for contractors and homeowners

Bona® adhesives solve numerous problems that contractors and homeowners face when installing hardwood and hard surface floors. Our adhesives are the first in the industry to be GREENGUARD Gold certified for indoor air quality, which means a safer environment for contractors and homeowners. Bona adhesives also will not etch the finish, which provides homeowners and contractors peace of mind for beautiful results. Bona adhesives provide confidence with superior quality products that provide a solid foundation for floors.



Bring out the beauty in floors.

At Bona US, we are committed to the lifetime of hardwood and hard-surface floors. We are devoted to providing solutions that keep a floor perfect during its entire life. Through our long commitment and constant search for innovation we offer lasting, sustainable results for professional and floor owners.

Bona is a family-owned company founded in 1919. With its headquarters in Sweden, Bona is now present in more than 90 countries all over the world through subsidiaries and distributors. We provide products for the installation, maintenance and renovation of hardwood floors throughout their lifetime. Today we have solutions for professionals, homeowners and prefinished manufacturers.

Bona US

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