



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. Sustainability has been a part of the culture at Bona since 1919. Our sustainability goals are in line with global goals for sustainable development and focuses on environmentally friendly products and systems. 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

- GREENGUARD GOLD certified for indoor air quality
- Zero VOCs
- 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

Urethane wood flooring adhesives

- Releases airborne chemicals in vapor form
- Omits high VOCs until cured*, which is a concern for families with pets (*length of time dependent on each specific product)
- Greater environmental impact
- Etches surface of prefinished flooring
- Containers cannot be recycled

Bona[®] adhesives quick facts.

Bona's silane-based adhesives offer superior shear strength and excellent spread rates. They won't etch, damage or stain the finish of any pre-finished and site finished wood. No pails will be wasted and the risk of "skin over" is almost non-existent.

Moisture protection?

Yes - 18 lbs and 95% RH with standard MPB clip-on trowel.

Sound rating?

Yes - Meets ASTM E92-09 and ASTM E90-04 STC and IIC with ceiling.

Freeze-thaw stability?

Yes - down to zero degrees.

PRODUCT	ITEM NUMBER	DESCRIPTION
Moisture Barrier/Primer		
Bona [®] R540	BR54002200USBO	400-600 sq. ft. per 5 liters dependent of substrate. Use 1/4 " nap roller. One coat only*. 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	Now includes clip-on trowels per pail (the Bona 1250G and MBP trowels).
Bona QUANTUM [®] R851 (formerly Bona R851*)	BR85106100USBO	Now includes clip-on trowels per pail (the Bona 1250G and MBP trowels).
Bona QUANTUM [®] T (formerly Bona [®] R859)	BR85965001USBO	Now includes clip-on trowels per pail (the Bona 1250G and MBP trowels).
Applicator Tool		
Bona Adhesive Applicator	AT0003023	
	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		
	Two clip-on trowels per pail. The standard Bona 1250G trowel up to 60 sq. ft. per gallon and the Bona Moisture Barrier Plus (MBP) trowel delivers optimal moisture protection - 18 lbs. and 95% RH, up to 35 sq. ft. per gallon.	
Bona Engineered Flooring (EF)	AT0003008	7/32" x 13/64" x 25/64" Up to 75 sq. ft. per gallon.
Bona Engineered Flooring Trowel Plus (EFP)	AT0003037	5/16" x 5/16" x 3/4" Up to 70 sq. ft. per gallon. Engineered flooring only. Max 5/8" thick and 7" wide. 3lbs/ 75% RH.
Bona 1000F	AT0003005	3/16" x 1/8" x 1/8" Up to 85 sq. ft. per gallon
Bona 1250G	AT0003006	1/4" x 1/4" 7/16" Most commonly used. Up to 60 sq. ft. per gallon. Up to 8" engineered and 5" solid. Clip-on version provided in the pail.
Bona 1500G	AT0003007	5/16" x 5/16" x 7/16" Best mode – up to 50 sq. ft. per gallon. Up to 16" engineered and 9" solid.
Bona MBP	N/A	5/16" x 5/16" x 7/16" with MBP spacer provided in the pail. Up to 35 sq. ft. per gallon.

*Only one coat needed when used with Bona 1250G or Bona 1500G trowels and any Bona[®] silane adhesive. Two coats required for all other installations when the above criteria is not met.

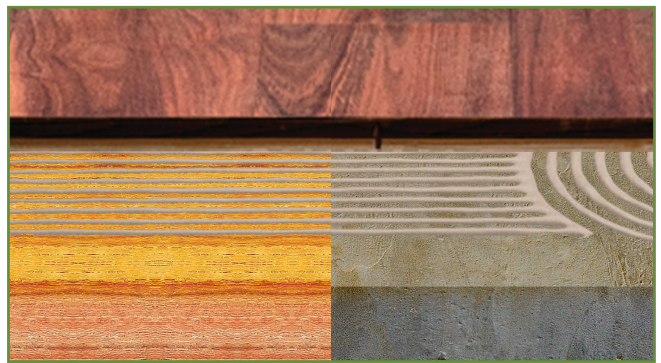
Bona® adhesives quick facts.

Suitable Substrates

Suitable substrates include concrete, plywood, cork, particle or chip board, stone, ceramic, terrazzo, Warmboard®, radiant heat flooring, dry above-grade gypsum underlayment and recycled-rubber underlayment.

Can Bona® adhesives be used to glue to rubber and acoustical rubber mats?

Yes. Use the Bona® 1000F trowel or Bona Engineered Flooring (EF) trowel.



Application

Does the adhesive need to be back troweled or “keyed in”?

No - but by back troweling or “keying in” the adhesive, the moisture protection will increase to 15 lbs – one of the best ratings on the market.

How are ideal spread rates ensured?

Hold trowel closer to a 90-degree angle. See image on the right for example. Moreover, proper sub-floor preparation is required.





Bona® R540 Moisture Barrier & Primer

Bona® R540 is a recommended treatment as optimal conditions are rarely experienced when laying a floor. Non-ideal conditions leave the contractor with three options: proceed with the installation and risk that the floor will cup, delay the job, or mitigate the risk and delays by using Bona R540.

Does building paper have to be used?

No - it's not required.

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

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

Are chalk lines still visible?

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

Does the wood still need to be acclimated?

Yes - best practices should always be followed.

What is the pot life?

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

What if the subfloor is a resinous wood subfloor system?

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

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

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® Adhesive

QUICK TIP – Use Vaseline® or wax in the threads of the cap so the adhesive won't stick to it. The average coverage rate is 60 lineal feet per tube at 1/4" bead.



It all comes down to a solid foundation.

Bona® silane-based adhesives are part of The Bona System®, an elite family of professional products that are made to work perfectly together. We make our own formulations, so our products are one of a kind.

Bona® Silane-Based Adhesives

- ✓ Easy to apply with no arm fatigue
- ✓ Easy to clean and won't harm finish
- ✓ Excellent "green grab" keeps flooring in place
- ✓ "Memory free" prevents drift between board seams
- ✓ Rapid shear strength allows foot traffic in one day
- ✓ Exceptional ridge stability for maximum adhesion
- ✓ Compatible with radiant heat systems
- ✓ **First in the industry wood floor adhesives**
GREENGUARD GOLD Certified
- ✓ Protects up to 18 lbs and 95% RH
- ✓ Includes two clip-on trowels in every pail
- ✓ Water and solvent free
- ✓ Prop 65 Compliant
- ✓ Zero VOCs








Engineered to reduce 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.

Resistance to Impact Noise

Bona® adhesives are tested in accordance with the Impact Insulation Class (IIC) standard using the measurement procedure ASTM E492-09, as well as ASTM E90-04 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	SHEAR/ ELONGATION	MOISTURE	COVERAGE	SOUND REDUCTION RATING	PACKAGING
Bona QUANTUM® R851 (formerly Bona R851®) Adhesive 	Solid or Engineered Prefinished or Unfinished Flooring ✓ Up to 16" in width (9" for solid) ✓ Up to 3/4" thick	340 psi/ 180%-220%	Up to 15 lbs or 85% RH, 4% Tramex or 2.5% CM	Up to 85 square feet/gallon depending on trowel notch requirements	Meets ASTM E92-09 and ASTM E90-04 STC and IIC with ceiling (6" concrete slab w/ ceiling)	3-gallon container
	When used with "MBP clip-on" 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" in width (9" for solid) ✓ Up to 3/4" thick	340 psi/ 180%-220%	Up to 15 lbs or 85% RH, 4% Tramex or 2.5% CM	Up to 85 square feet/gallon depending on trowel notch requirements		4-gallon container
	When used with "MBP clip-on" trowel		Up to 18 lbs or 95% RH, 6% Tramex or 5% CM	Up to 35 square feet/gallon		
Bona QUANTUM® T (formerly Bona® R859) Adhesive 	Solid or Engineered Prefinished or Unfinished Flooring ✓ Up to 16" in width (9" for solid) ✓ Up to 3/4" thick	335 psi/ 250%	Up to 15 lbs or 85% RH, 4% Tramex or 2.5% CM	Up to 85 square feet/gallon depending on trowel notch requirements	Meets ASTM E92-09 and ASTM E90-04 STC and IIC with ceiling (6" concrete slab w/ ceiling)	4-gallon container
	When used with "MBP clip-on" 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	335 psi/ 250%	For use with glue-assist	Up to 60 linear feet/tube with a 1/4" bead	—	20 oz. foil tube
Bona VERTICAL™ (formerly Bona R880™) 	Great for Trim, Starter Rows, Treads, Risers, Stringers, Balusters, VERTICAL Applica- tions and Wall Treatments	247 psi/ 150%	For use with glue-assist	Up to 30 linear feet/tube with a 1/4" bead	—	10.4 oz. cartridge



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
- ✓ Unsurpassed ridge stability provides maximum adhesive transfer
- ✓ Easy to clean - will not harm the finish on pre-finished floors; will not stain hands
- ✓ Zero VOCs
- ✓ GREENGUARD GOLD Certified - 1st in the industry



*Two clip-on trowels included in every pail





Bona QUANTUM® FLOW

NEW

Bona QUANTUM® FLOW is a high-performance pourable adhesive designed for users who prefer to pour out of the pail and easily apply to the floor, saving time, effort, and labor. Like the name suggests, Bona QUANTUM FLOW is a high-performance pourable adhesive designed for users who prefer to pour out of the pail and easily apply to the floor, saving time, effort, and labor.

- ✓ 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
- ✓ Zero VOCs
- ✓ GREENGUARD GOLD Certified



*Two clip-on trowels included in every pail





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.

- ✓ Easy to apply and clean
- ✓ Exceptional “green grab”
- ✓ Unsurpassed ridge stability
- ✓ Zero VOCs
- ✓ GREENGUARD GOLD Certified





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
- ✓ Uses a standard 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
- ✓ Zero VOCs
- ✓ GREENGUARD GOLD Certified





Nasios Hardwood Flooring

Bona QUANTUM®

Bona QUANTUM® is 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





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
- ✓ 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‡

* Only one coat needed when used with 1250G or 1500G trowel and any Bona Silane Adhesive. Two coats required in all other installations when the above criteria is not met.

† Can help prevent cupping caused by excessive subfloor moisture.

‡ Radiant heat systems will have a maximum moisture protection of 6 lbs or 80% RH.



Bona® R540 Usage Guide

USAGE	SUBSTRATE	INSTALLATION METHOD	COVERAGE RATE	DRY TIME (PRIOR TO INSTALLATION)
Vapor Retarder	Plywood/ wooden subfloor/ cementitious* (floating only)	Nail down, floating	300-400 square feet per five liters	1-2 hours* (surface dry to the touch)
Vapor Retarder	Plywood/ wooden subfloor/ cementitious	Nail - Glue Assist with Bona VERTICAL™	300-400 square feet per five liters	4 hours
Vapor Retarder	Plywood/ wooden subfloor/ cementitious	Nail - Glue Assist with Bona QUANTUM®, Bona QUANTUM® FLOW, Bona QUANTUM® R851, Bona QUANTUM® T	300-400 square feet per five liters	16 hours
Primer	Resinous wood subfloor systems	Nail - Glue Assist with Bona VERTICAL™	400-600 square feet per five liters	4 hours
Primer	Resinous wood subfloor systems	Nail - Glue Assist with Bona QUANTUM®, Bona QUANTUM® FLOW, Bona QUANTUM® R851, Bona QUANTUM® T	400-600 square feet per five liters	16 hours
Moisture Barrier - up to 18 lbs/ 95% RH*	Cementitious subfloors only	Full Trowel (1250G or 1500G trowel) with Bona QUANTUM® R851, Bona QUANTUM FLOW®, Bona QUANTUM® T	One coat, at 400 square feet per five liters	16 hours
Moisture Barrier - up to 18 lbs/ 95% RH*	Cementitious subfloors only	LVT Floating (non-glue install only) Full trowel (1000F, EF and EF Plus)	Two coats, each at 400 square feet per five liters	1-2 hours** 16 hours

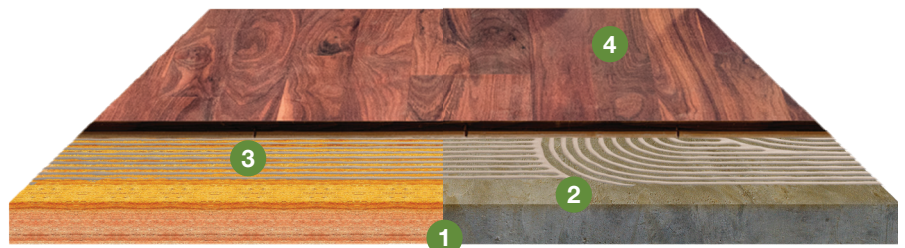
* Radiant heat systems will have a maximum moisture protection of 6 lbs or 80% RH ** Surface dry to the touch

Application

As a primer, roll Bona® R540 Moisture Barrier and Primer evenly on the substrate. **Used as a primer, a 1/4" nap mohair roller is recommended.** Roll Bona R540 evenly to the substrate at the rate indicated in the chart above. 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 and Primer to dry 1-2 hours or when dry to the touch. When using Bona R540 in conjunction with Bona QUANTUM®, Bona QUANTUM® FLOW, Bona QUANTUM® R851, or Bona QUANTUM® T (formerly Bona® R859) Wood Floor Adhesives, 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 QUANTUM® R851 **or** Bona QUANTUM® **or** Bona QUANTUM® FLOW **or** Bona QUANTUM® T
4. Flooring



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.

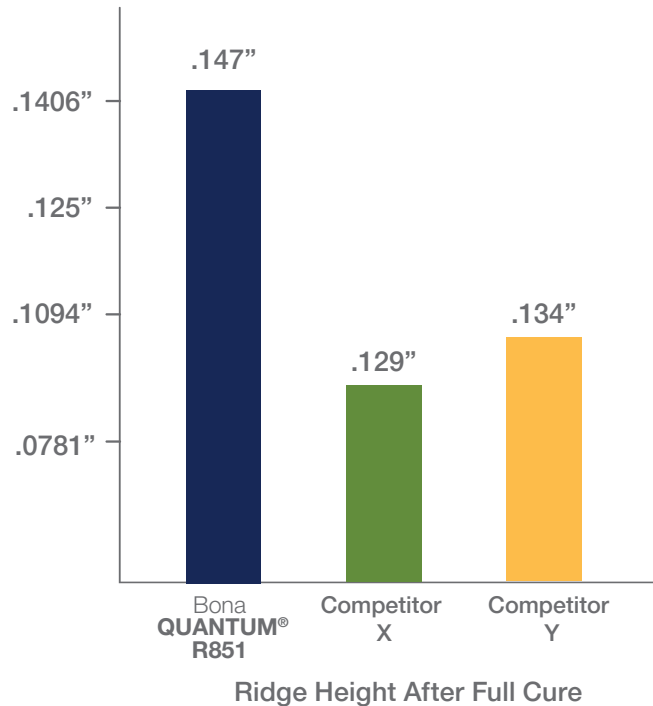
Key Metrics vs. Competition

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™ R851, Bona QUANTUM® FLOW & Gypsum-Based Concrete

It's known that contractors are told to use a primer when gluing over gypsum-based concrete such as Gyp-Crete®. 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** or **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® R851 is the exception! Through extensive testing, Bona’s R&D team has concluded that abrasion and thorough vacuuming prior to applying Bona QUANTUM® R851 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® R540 is 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.



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 QUANTUM™ FAQ

Q | Why use Bona QUANTUM® Adhesive?

- 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 | The NWFA (National Wood Flooring Association) over the years has seen a huge spike in “noisy, squeaky, loud floors”, and now include 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 Bona® Microfiber Pad or putty knife. 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?

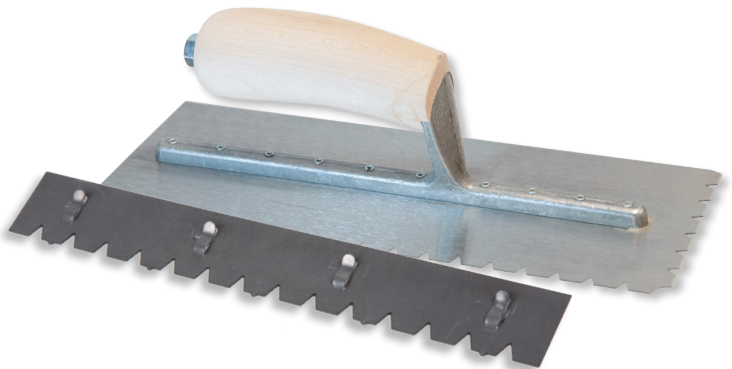
A | Bona proudly makes Bona QUANTUM® R851, Bona QUANTUM® FLOW , Bona QUANTUM® T and Bona QUANTUM® at our manufacturing facility in Monroe, N.C. Bona VERTICAL™ and Bona® R540 are made at our manufacturing site in Limburg, Germany.








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® Adhesive Trowel Selection for Moisture Control

<p>≤ 18 lbs. (Calcium Chloride)</p>	 <p>Bona® Moisture Barrier Plus (MBP) Clip-On Trowel for Maximum Moisture Protection (6% Tramex)</p> <p>7/16" V-notch with MBP spacer</p> <p>Clip-on trowels included with Bona QUANTUM® R851, Bona QUANTUM® FLOW and Bona QUANTUM® T</p> <ul style="list-style-type: none"> Solids up to 9" widths Engineered up to 16" wide Up to 35 square feet per gallon** Replace Bona MBP clip-on trowel after every pail 	<p>≤ 95% RH (RH of the Concrete)</p>
<p>≤ 18 lbs. (Calcium Chloride)</p>	 <p>Bona® 1500G Trowel (4% Tramex)</p> <p>5/16" x 5/16" x 7/16" V-notch</p> <ul style="list-style-type: none"> 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** 12 lbs. moisture protection. Up to 15 lbs. and 87% RH with the back trowel method. Up to 18 lbs. and 95% RH of moisture protection when used over Bona® R540. 	<p>≤ 95% RH (RH of the Concrete)</p>
<p>≤ 18 lbs. (Calcium Chloride)</p>	 <p>Bona® 1250G Trowel and 1250G Clip-On Trowel (4% Tramex)</p> <p>1/4" x 1/4" x 7/16" V-notch</p> <p>Clip-on trowels included with Bona QUANTUM® R851, Bona QUANTUM® FLOW and Bona QUANTUM® T</p> <ul style="list-style-type: none"> Solids up to 5" wide & 3/4" thick Engineered up to 8" wide Up to 60 square feet per gallon** Replace Bona 1250G clip-on trowel after every pail 12 lbs. moisture protection. Up to 15 lbs. and 87% RH with the back trowel method Up to 18 lbs. and 95% RH of moisture protection when used over Bona® R540. 	<p>≤ 95% RH (RH of the Concrete)</p>
<p>≤ 6 lbs. (Calcium Chloride)</p>	 <p>Bona® Engineered Flooring (EF) Trowel (3% Tramex)</p> <p>7/32" x 13/64" x 25/64" V-notch</p> <ul style="list-style-type: none"> Engineered flooring only – 7" wide up to 3/4" thick Up to 75 square feet per gallon** 	<p>≤ 80% RH (RH of the Concrete)</p>
<p>≤ 6 lbs. (Calcium Chloride)</p>	 <p>Bona® 1000F Trowel (3% Tramex)</p> <p>5/32" x 5/32" x 5/32" V-notch</p> <ul style="list-style-type: none"> Parquet (12" x 12") over smooth substrates; Acoustical Underlayment Pad Up to 85 square feet per gallon** 	<p>≤ 80% RH (RH of the Concrete)</p>
<p>≥ 3 lbs. (Calcium Chloride)</p>	<p>Vapor Retarder</p> <p>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%."</p>	<p>≤ 75% RH (RH of the Concrete)</p>

**Suggested notched trowel for maximum coverage of adhesive.
For optimum spread rate hold at a 90 degree angle.**

Suitable Substrates & Compatible Products:

Concrete, gypsum-based leveling compounds, Portland cement-based leveling compounds, rubber, cork, plywood, OSB, Warmboard®, particleboard, stone, ceramic, terrazzo, metal, cement board (Fiberrock®, Durock®, PermaBase®, Hardiebacker®), resinous wood subfloor systems, radiant heat flooring systems, and many other products.

*Bona R851 sound rating. Sound ratings for Bona R851 of 70 dB IIC and 65 dB STC (1500G trowel with suspended ceiling)

**Coverage rates are dependent of board width, subfloor flatness (3/16" over 10 feet), substrate porosity or CSP, and the angle of the trowel during application (floated vs. 90° to the flooring surface).

Additional Notes

Adhesive Product Reference Chart

Product	Bona QUANTUM® R851	Bona QUANTUM® FLOW	Bona QUANTUM®
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.	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.
Features & Benefits	<ul style="list-style-type: none"> • Excellent initial “green grab” means the flooring stays in place • No “memory” - floor seams will not move apart • Rapid shear strength development - flooring is ready for furniture and foot traffic in one day • Easy to clean - will not harm the finish on pre-finished floors; will not stain hands • Easy to apply - no arm fatigue • Exceptional ridge stability provides maximum adhesive transfer • GREENGUARD GOLD Certified for Indoor Air Quality • Meets the criteria for LEED EQc 4.1 (v. 2.1, 2.2, 3.0) • California Proposition 65 Compliant • Can be used with radiant heat systems 	<ul style="list-style-type: none"> • Excellent initial “green grab” means the flooring stays in place • No “memory” - floor seams will not move apart • Rapid shear strength development - flooring is ready for furniture and foot traffic in one day • Easy to clean - will not harm the finish on pre-finished floors; will not stain hands • Easy to apply - no arm fatigue • Exceptional ridge stability provides maximum adhesive transfer • GREENGUARD GOLD Certified for Indoor Air Quality • Meets the criteria for LEED EQc 4.1 (v. 2.1, 2.2, 3.0) • California Proposition 65 Compliant • Can be used with radiant heat systems 	<ul style="list-style-type: none"> • Perfect alternative to face nailing close-out rows, board replacements and trim applications • Excellent initial “green grab” means the flooring stays in place • Rapid shear strength development – flooring is ready for furniture and foot traffic in one day • Easy to clean – will not harm the finish on pre-finished floors; will not stain hands • Easy to apply – no memory means no need to tape or roll • Exceptional ridge stability provides maximum adhesive transfer • GREENGUARD GOLD Certified for Indoor Air Quality
VOC G/L	Zero	Zero	Zero
Coverage Rate/Gal	See “Trowel Notch Requirements” for spread rate	See “Trowel Notch Requirements” for spread rate	60 linear feet per tube with ¼" bead
Applicator	Trowel	Trowel	Bona Adhesive Applicator
Coats/Floor	N/A	N/A	N/A
Color When Dry	Cream	Cream	Cream
Sizes Available	3 Gallon	4 Gallon	20.3 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	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 while wet. Use mineral spirits on a clean white cloth.	Clean adhesive from the surface of the floor 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 18lbs or 95% RH	Moisture protection up to 18lbs or 95% RH	Moisture protection up to 15 lbs or 85% RH
Sound Rating	Meets ASTM E492-09 and ASTM E90-04 STC and IIC with ceiling	Meets ASTM E492-09 and ASTM E90-04 STC and IIC with ceiling	Meets ASTM E492-09 and ASTM E90-04 STC and IIC with ceiling
Open Time	60 minutes @ 70°F and 50% RH*	60 minutes @ 70°F and 50% RH*	60 Minutes @ 70°F and 50% RH*

Product	Bona QUANTUM® T	Bona VERTICAL™	Bona® R540
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.	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.	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.
Features & Benefits	<ul style="list-style-type: none"> • Excellent “green grab” means the flooring stays in place • No “memory” - floor seams will not move apart • Rapid shear strength development - flooring is ready for furniture and foot traffic in one day • Easy to clean and easy to apply • Exceptional ridge stability provides maximum adhesive transfer • GREENGUARD GOLD Certified for Indoor Air Quality • Meets the criteria for LEED EQc 4.1 (v. 2.1, 2.2, 3.0) • California Proposition 65 Compliant • 1 Moisture Barrier Plus Clip-on Trowel is included in each pail of Bona QUANTUM T • The Moisture Barrier Plus Clip-on Trowel attaches to a standard trowel, and applies a moisture barrier of protection with maximum ridge stability 	<ul style="list-style-type: none"> • Fast setting initial grab • Extremely high bonding strength • Water and solvent free • GREENGUARD GOLD Certified • Great for trim, starter rows, treads, risers, vertical applications • Uses a standard 10 oz. caulking gun 	<ul style="list-style-type: none"> • Mitigates potential moisture issues, like cupping, in new and existing construction • Substitute for felt paper installed over plywood subfloors ** • Increases adhesion over sealed plywood floors • Can be used as a sealer for plywood subfloors up to 20% MC • Dries fast allowing nail-down installation immediately • No more tears in paper or seams to be concerned with - continuous film
VOC G/L	Zero	Zero	Zero
Coverage Rate/Gal	See “Trowel Notch Requirements” for spread rate	30 lineal feet per tube with a ¼" bead	When used as a Vapor Retarder – Wooden subfloors: 300-400 square feet per 5 liters. When used as a one-coat primer: 400-600 square feet per 5 liters. For moisture barrier protection up to 18 lbs or 95% RH, apply two coats, each at 400 square feet per 5 liters
Applicator	Trowel	Adhesive Applicator - Standard 10 oz. caulking gun	Roller - ¼" nap mohair or other shed resistant roller
Coats/Floor	N/A	N/A	1 to 2
Color When Dry	Cream	Cream	Transparent Brown
Sizes Available	4 Gallon	10.4 oz	5-Liter
Dry Time	N/A	4 - 6 Hours	1-16 hours (see product application instructions)
Cure Time	Light foot traffic - 8-10 hours Furniture, fixtures - 12-24 hours Unfinished floor sanding - after 24 hours	12 hours	24 hours
Clean Up	Clean adhesive from the surface of the floor immediately, while wet. Use mineral spirits on a clean white cloth.	Cleaned up with mineral spirits. Once dried, mechanical cleaning may be necessary	Can be mechanically removed once dried
Moisture Protection	Moisture protection up to 18 lbs or 95% RH	N/A	Can be used for damp proofing concrete subfloors up to 95% RH & 18lbs***
Sound Rating	Meets ASTM E492-09 and ASTM E90-04 STC and IIC with ceiling	N/A	N/A
Open Time	60 minutes @ 70°F and 50% RH*	Open time of 10 minutes (5 minutes when misted with water)	N/A

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

**moisture readings up to 20%

*** when applied as a two-coat system

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 (formerly Bona® R859) and Bona QUANTUM® 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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