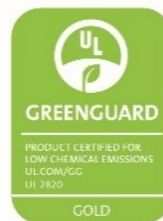




# Bona QUANTUM® FLOW

Silane-based Wood Floor Adhesive

Pourable, one-component, silane-based wood floor adhesive



Bona QUANTUM® FLOW is an easily pourable, one-component, silane-based adaptable wood floor adhesive.

Bona QUANTUM FLOW is the perfect complement to the existing Bona QUANTUM® lineup and has all the same excellent features and benefits contractors appreciate about Bona adhesives in a new, easily pourable formula. With this new product, you can pour and spread flooring adhesive quickly and effortlessly, preventing further strain on your knees and back. Bona QUANTUM FLOW 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.

- Pourable and easy to apply
- Unlimited Moisture Protection\*
- Unsurpassed ridge stability provides maximum adhesive transfer
- Excellent “Green Grab” means the floor stays in place
- Easy to clean – will not harm or etch the finish on pre-finished floors; will not stain hands
- Zero VOC’s – for better indoor air quality
- GREENGUARD GOLD certified

\*When used according to installation specifications for unlimited moisture protection

9/2024

This data sheet replaces all previous versions.



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## PHYSICAL CHARACTERISTICS

**Ingredients** – Calcium carbonate, silane modified prepolymer, plasticizers, amorphous silica

**Base** – Silane Modified-Prepolymer

**Color** – Cream

**Viscosity** – 60 +/- 10 Pa.s at a shear rate of 5 1/sec (cone-plate rheometer)

**Density** – 13.52 lbs./gallon

**VOC Content** – ZERO VOC

**Max Shear Strength** – 340psi (at final cure; lap shear test, 1mm gap) ISO 17178

**Max Elongation** – 200% (ISO 17178)

**Water Vapor Permeability** – < 0.7 g/m<sup>2</sup>-24 hour-mmHG @ 2000g/m<sup>2</sup>

**Sound Reduction Rating** – Meets ASTM E492-09 and ASTM E90-04 STC and IIC with ceiling; 6" STC 60, IIC 67; 8" STC 62, IIC 70

**Moisture Levels** – See Unlimited Moisture protection without testing section in this document. Certain installation situations will require moisture testing with a moisture protection range of 6lbs/75% RH to 18 lbs/95% RH.

**Odor** – Non-offending

**Flash Point** – >100° C (212°F) (Pensky-Martens)

**Stability** – 12 months from date of manufacture in unopened, original packaging

**Packaging** – 4-gallon containers

## APPLICATION CHARACTERISTICS

**Spread Rating** – Easy to spread, maintains excellent ridge stability

**Open Time** – 60 minutes @ 70°F and 50% RH\*\*

**Coverage** – See "Trowel Notch Requirements" for spread rate

**Curing** – Light foot traffic - 8-10 hours

Furniture, fixtures - 12-24 hours

Unfinished floor sanding - after 24 hours

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

## RECOMMENDED USE

Commercial and residential. Use with solid or engineered prefinished and unfinished flooring; on, above or below grade<sup>1</sup>. May be used on both wood and concrete substrates<sup>2</sup>.

<sup>1</sup>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.

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

See "Directions for Use" for acceptable jobsite conditions.

## RESPONSE

**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. 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.

## ACCLIMATION AND SITE CONDITIONS

Building climate control system must be functioning with a temperature of 65°F–80°F and maximum relative humidity of 70% for 72 hours before flooring is installed, during installation, and for 72 hours after installation. Acclimate Bona QUANTUM<sup>®</sup> FLOW adhesive to room temperature of the installation, usually overnight.



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**Unlimited Moisture Protection without testing:** To obtain unlimited moisture protection on a concrete subfloor only (does not include gypsum-based concrete products, leveling compounds or patches), without the need for CaCl<sub>2</sub> or RH testing, you must either use Bona RollGuard or Bona R540 Moisture Barrier/Primer (See label for detailed instructions) and a Bona 1500G adhesive trowel, a Bona Moisture Barrier Plus (MBP) trowel, or a ¼" x ¼" V-notch trowel, spreading the adhesive at a coverage rate of 30-35 square feet per gallon. In addition, you must ensure 100% transfer and coverage of adhesive to concrete subfloor creating an uninterrupted and continuous membrane of adhesive. The concrete slab must be dry to the touch.

**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. **MVER using ASTM F 1869 (Calcium chloride test) shall not exceed 12 lbs/24 hours/1000 square feet. Relative Humidity using ASTM F 2170 (RH Probe test) shall not exceed 85%. If MVER readings exceed 12 lbs. or 85% but are less than 18 lbs. or 95%, use Bona RollGuard, Bona® R540 Moisture Barrier/Primer (See label for detailed instructions) or use a moisture barrier plus (MBP) trowel, or a ¼" x ¼" v-notch and spread the adhesive at a coverage rate of up to 35 square feet per gallon. For maximum moisture protection ensure 100% transfer and coverage of adhesive to concrete subfloor creating an uninterrupted and continuous membrane of adhesive. When using a Tramex measuring device to identify moisture levels in cementitious based substrates, use the Tramex measuring device to find the highest reading in the area to be installed then run highest reading in the area**

to be installed. As a general guideline for floors with no in-floor heating system, if the Tramex reading is below 4%, the Bona Moisture Barrier Trowel (MBP) clip-on trowel, a ¼" x ¼" V-notch trowel, Bona RollGuard, or Bona R540 Moisture Barrier/Primer will not be necessary. If the reading is between 4% and 6%, either use the MBP Trowel, a ¼" x ¼" V-notch trowel at a coverage rate of up to 35 square feet per gallon. Alternatively, Apply Bona RollGuard or Bona R540 Moisture Barrier/Primer prior to adhesive application. For wood substrates, follow flooring manufacturer's guidelines including moisture content and required moisture measuring methods.

## PRODUCT LIMITATIONS

Bona QUANTUM<sup>®</sup> FLOW 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.

## 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 bond. 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



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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 has 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. Suitable substrates include concrete, plywood, Warmboard<sup>®</sup>, cork, particle or OSB, stone, ceramic, terrazzo, radiant heat flooring (refer to manufacturer's recommended installation instructions), and dry above-grade gypsum underlayment, recycled-rubber underlayment.

## DO NOT USE BONA QUANTUM<sup>®</sup> FLOW

- On wet, contaminated or friable surfaces
- Over concrete curing compounds, sealers or other surface treatments that could affect adhesion
- On areas subject to hydrostatic head
- On cutback residue, or over vinyl/VCT
- On chemically treated woods (stain, preservatives, etc.)
- As a leveling compound
- As a moisture barrier over leveling compounds or patches.

## SPREADING ADHESIVE AND LAYING FLOORING

Pour adhesive along the length of the desired install location. 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 100% coverage on substrate. Do not allow more than 60 minutes of open time before setting flooring into the adhesive. (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.**

## BACK TROWEL METHOD

Utilizing the flat side of the Bona<sup>®</sup> 1500g trowel or the Bona<sup>®</sup> 1250g trowel, skim coat Bona QUANTUM<sup>®</sup> FLOW onto subfloor creating a smooth surface free of voids. While the skim coat of adhesive is still wet, apply Bona QUANTUM FLOW with either trowel.

Clean adhesive from the surface of the floor while wet. Use mineral spirits on a clean white cloth.

## STORAGE

Store in a climate-controlled environment. Do not store for extended periods in excess of 90°F. Freeze thaw stable.



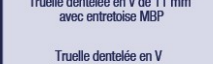



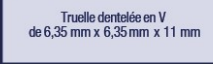

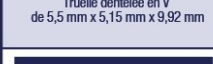







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## TROWEL SELECTION (FOR BONA QUANTUM FLOW ONLY) • Sélection de la truelle (pour Bona QUANTUM FLOW uniquement)

Description La Description	Use Utilisation	Coverage Rate Taux de couverture	Moisture Protection Protection contre l'humidité
 7/16" V-notch with MBP spacer   1/4"x1/4" V-notch	Bona Moisture Barrier Plus (MBP) Trowel  Bona 1/4" x 1/4" v-notch Trowel	Solids up to 9" wide and 3/4" thick Engineered up to 16" wide and 3/4" thick	up to 35 sq. ft./gallon"  Unlimited No Testing Required!
 Truelle dentelée en V de 11 mm avec entretoise MBP   Truelle dentelée en V de 6,35 mm x 6,35 mm	Truelle Bona Moisture Barrier Plus (MBP)  Bona Truelle dentelée en V de 6,35 mm x 6,35 mm	Planche en bois massif jusqu'à 23 cm (9 po) de largeur et 2 cm (3/4 po) d'épaisseur Plancher d'ingénierie jusqu'à 40 cm (16 po) de largeur et 2 cm (3/4 po) d'épaisseur	jusqu'à 3,25 m² / 4 litres"  Illimité. Aucun test requis!
 5/16"x5/16"x7/16" V-notch   Truelle dentelée en V de 8 mm x 8 mm x 11 mm	Bona 1500G Trowel  Truelle Bona 1500G	Solids up to 9" wide and 3/4" thick Engineered up to 16" wide and 3/4" thick  Planche en bois massif jusqu'à 23 cm (9 po) de largeur et 2 cm (3/4 po) d'épaisseur Plancher d'ingénierie jusqu'à 40 cm (16 po) de largeur et 2 cm (3/4 po) d'épaisseur	up to 50 sq. ft./gallon"  jusqu'à 4,65 m² / 4 litres"  ≤ 12 lbs. / 85% RH trowel only ≤ 15 lbs. / 87% RH with back-trowel‡ Unlimited over Bona RollGuard or Bona R540*
 1/4"x1/4"x7/16" V-notch   Truelle dentelée en V de 6,35 mm x 6,35 mm x 11 mm	Bona 1250G Trowel  Truelle Bona 1250G	Solids up to 5" wide and 3/4" thick Engineered up to 8" wide and 3/4" thick  Planche en bois massif jusqu'à 13 cm (5 po) de largeur et 2 cm (3/4 po) d'épaisseur Plancher d'ingénierie jusqu'à 20 cm (8 po) de largeur et 2 cm (3/4 po) d'épaisseur	up to 60 sq. ft./gallon"  jusqu'à 5,57 m² / 4 litres"  ≤ 12 lbs. / 85% RH trowel only ≤ 15 lbs. / 87% RH over Bona with back-trowel‡ ≤ 18 lbs. / 95% RH over Bona RollGuard or Bona R540* ≤ 5,44 kg (12 lb)/85 % HR truelle seulement ≤ 6,80 kg (15 lb)/87 % HR sur le côté plat de la truelle‡ ≤ 8,16 kg (18 lb)/95 % HR sur Bona RollGuard ou Bona R540*
 7/32"x13/64"x25/64" V-notch   Truelle dentelée en V de 5,5 mm x 5,15 mm x 9,92 mm	Bona Engineered Flooring Trowel (EF)  Plancher d'ingénierie Truelle Bona (EF)	Engineered flooring only up to 7" wide and 3/4" thick  Plancher d'ingénierie jusqu'à 18 cm (7 po) de largeur 2 cm (3/4 po) d'épaisseur	up to 75 sq. ft./gallon"  jusqu'à 6,97 m² / 4 litres"  ≤ 6 lbs. / 80% RH ≤ 2,72 kg (6 lb)/80 % HR
 5/32"x5/32"x5/32" V-notch   Truelle dentelée en V de 6,25 mm x 6,25 mm x 6,25 mm	Bona 1000F Trowel  Truelle Bona 1000F	Parquet (12"x12") over smooth substrates Acoustical Underlayment Pad  Parquet 30,5 x 30,5 cm (12 po x 12 po) sur des supports lisses Coussin de recouvrement acoustique	up to 85 sq. ft./gallon"  jusqu'à 7,89 m² / 4 litres"  ≤ 6 lbs. / 80% RH trowel only"" ≤ 2,72 kg (6 lb)/80 % HR truelle seulement""
 7/16"x7/16"x3/4" V-notch   Truelle dentelée en V de 11 mm x 11 mm x 1,9 mm	Bona Engineered Flooring Plus Trowel (EFP)  Plancher d'ingénierie plus Truelle Bona (EFP)	Engineered flooring only up to 7 1/2" wide and 5/8" thick  Plancher d'ingénierie jusqu'à 19 cm (7 1/2 po) de largeur 1.5 cm (5/8 po) d'épaisseur	up to 70 sq. ft./gallon  jusqu'à 6,87 m² / 4 litres  ≤ 3 lbs. / 75% RH trowel only"" ≤ 1,36 kg (3 lb)/75 % HR truelle seulement""

## ORDER INFORMATION

Item #	Description	Size	No. Case	Lbs./Case
BR852065001	Bona QUANTUM® Flow	4 Gal	1	56.76

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