



# Bona QUANTUM®

Silane-based Wood Floor Adhesive

One-component, moisture curing, water, and solvent-free, silane-based wood floor adhesive



Bona QUANTUM® provides outstanding adhesion to a variety of surfaces and allows for the natural movement of wood flooring. Use along the leading edge of refinished or sold plank floors, coupled with staple or nail down system.

- Eliminates cracking and popping
- Useful for prefinished floors due to ease of cleanup
- Perfect alternative to face nailing close-out rows, board replacement, stairs, risers, and trim application
- GREENGUARD Gold Certified



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## PHYSICAL CHARACTERISTICS

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

**Base** – Silane Modified-Prepolymer

**Color** – Cream

**Viscosity** – 100 +/-10 Pa\*s at a shear rate of 5<sup>-1</sup>-1 sec

**Density** – 13.93 lbs./ gallon

**VOC Content** – ZERO VOC

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

**Max Elongation** – 200% (ISO 17178)

**Odor** – Non-offending

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

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

**Packaging** – 12, 20 oz. tubes

## APPLICATION CHARACTERISTICS

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

**Coverage** – 60 linear feet per tube with ¼" bead

**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

- Replaces top nailing on close-out rows and board replacements.
- Supplemental fastening for wide plank boards when nailing and gluing are needed
- Idea for projects where traditional fastening isn't practical – hard to reach areas, radiant heat floor
- 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.

## DIRECTIONS

**BEFORE USING, READ ALL DIRECTIONS AND MATERIAL SAFETY DATA SHEETS.**

FOR TECHNICAL ADVICE: Call Bona US at 800-872-5515

## ACCLIMATION AND SITE CONDITIONS

Building climate control system must be functioning with a temperature of 65°F–95 °F and maximum relative humidity of 65% for 72 hours before flooring is installed, during installation, and for 72 hours after installation. Ideal conditions are 65-70°F and 45-55% RH. Acclimate Bona QUANTUM™ R851 adhesive to room temperature of the installation, usually overnight.

**Moisture testing:** For concrete slabs, using standard application, conduct moisture testing per ASTM test methods F 1869 Test for Measuring Moisture Vapor Emission Rate (MVER) of Concrete Subfloor Using Anhydrous Calcium Chloride, and/or F 2170 Test Method for Determining Relative Humidity in Concrete Floor Slabs Using In Situ Probes. Contact ASTM International to obtain copies of the test methods before proceeding. 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 the Bona R540 Moisture Barrier/Primer (See label for detailed instructions) or use a Moisture Barrier Plus (MBP) clip-on trowel with any Bona trowel and spread the adhesive at a



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coverage rate of 30-35 square feet per gallon. For maximum moisture protection ensure 100% transfer of adhesive to both subfloor and flooring. To ensure proper coverage use a new clip-on trowel for every pail of adhesive. When using a Tramex measuring device to identify moisture levels in cementitious based substrates, find the 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 Clip-On Trowel or the Bona R540 Moisture Barrier/Primer will not be necessary. If the reading is between 4% and 6%, either use the Moisture Barrier Plus (MBP) Clip-On Trowel or apply 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.

## SUBSTRATE PREPARATION

Substrate must be clean, smooth, dry, free of loose material and structurally sound, with the surface slightly textured for best adhesion (similar to a light broom finished concrete). Remove adhesive residue, paint, concrete curing compounds or other contaminants that may affect adhesive bond. 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 levelling compound. Substrate must be level to 3/16" in a 10-foot span. 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 temperatures must be between 55° 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.

## PRODUCT LIMITATIONS

Bona QUANTUM 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.

## DO NOT USE BONA QUANTUM

- 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

## APPLICATION

Remove end cap of applicator and pull back piston. Insert BONA QUANTUM tube into applicator. Make a small cut to the exposed end of the Bona QUANTUM<sup>™</sup> adhesive tube.

Replace end cap – make sure to use the supplied applicator cone. Apply by pulling applicator trigger. Apply adhesive along the entire length of the board for best results.

## CLEAN-UP

Clean adhesive from the surface of the floor immediately, 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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## ORDER INFORMATION

Item #	Description	Size	No. Case	Lbs./ Case
BR850T5600USBO	Bona QUANTUM	20 oz.	12	24.9
AT0003023	Bona Applicator	n/a	1	3.62
AT0003032	Repl. Cuff	n/a	1	n/a