

Bona R580

Technical data sheet

Bona® R580 moisture barrier sealer optimizes adhesion to, and provides a protective membrane over substrates where the moisture content exceeds 12 lbs or 85% relative humidity.¹ It is a moisture cured, solvent and water free, silane-based compound. It can be used as either a 1 or 2-component product.

- 1 or 2-component system: 2-component system includes a catalyst to accelerate setting time.
- Easy application
- Moisture barrier protection above 12 lbs or 85% RH
- Very low VOC – Meets the criteria for LEED EQc 4.1 (v. 2.1, 2.2, 3.0)
- Single coat application
- Self-leveling
- Easy tool clean-up
- GREENGUARD Indoor Air Quality Certified®
- California Proposition 65 Compliant
- Can be used with radiant heat systems

Use on concrete, cementitious or wood substrates where moisture is a known or potential issue; where the moisture content is greater than 12 lbs (Calcium Chloride test) or 85% relative humidity (RH probe test) but not greater than 18 lbs or 95% relative humidity, 6% Tramex or 4% CM

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Physical Characteristics:

Ingredients – Silane-based polymer, Calcium Carbonate, Triethoxypropylsilane, Amine, and Amorphous Silica.

Base – Silane Modified-Prepolymer

Color – Off-white

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

Density – 10.43 lbs/gallon

VOC Content – <40 grams per liter

Odor – Non-offending

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

Stability – 1 year from date of manufacture in unopened, original packaging

Packaging – 2.5 gallon pail (includes foil packet containing catalyst)

Application Characteristics:

Spreadability – Easy to spread, self-leveling

Open Time– 20 minutes (2 component) / 40 minutes (1 component)

Cure Time – 24 hours

Coverage – See “Trowel Notch Requirements” for spread rate

Dry Time – 4 hours (2 Component system) / 6 hours (1 component system)

Directions

BEFORE USING, READ ALL DIRECTIONS AND MATERIAL SAFETY DATA SHEET.

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

MOISTURE TESTING: For concrete slabs, conduct moisture testing per ASTM test methods F1869 “Test Method for Measuring Moisture Vapor Emission Rate (MVER) of Concrete Subfloor Using Anhydrous Calcium Chloride”, and/or F2170 “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. Use Bona R580 Moisture Barrier Sealer prior to installation of hardwood flooring with a Bona adhesive when MVER using ASTM F1869 (Calcium Chloride test) exceeds 12 lbs/24 hours/1000 square feet or when using ASTM F2170 (RH probe test) exceeds 85% relative humidity. The maximum moisture content should not exceed 18 lbs/24 hours/1000 square feet or 95% relative humidity. 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 and then run the CM testing method where you have recorded the highest reading. As a general guideline for floors with no in-floor heating system, if the Tramex is below 4%, the Bona R580 will not be necessary and between 4% and 6%, Bona R580 will be required. However, the CM method must be used to make final determination of concrete moisture levels. For moisture content and quality of substrates, the guidelines of the wood floor manufacturer must be observed.

ACCLIMATION AND SITE CONDITIONS: Building climate control system must be functioning with a temperature of 65° - 80°F and maximum relative humidity of 70% for 72 hours before flooring is installed, during installation, and for 72 hours after installation. Acclimate flooring according to

Adhesives



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Adhesives



manufacturer's instructions. Acclimate Bona R580 Moisture Barrier Sealer and Bona R848, R851 or, R859 Adhesive to the room temperature of installation; usually overnight.

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. Sandblasting, shotblasting 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/or leveling compound. Substrate must be level to 3/16" in a 10 foot span. Slab temperatures must be between 55° and 95°F. NOTE: If a concrete slab needs to be leveled, Bona R580 Moisture Barrier Sealer should be applied to the slab prior to application of the leveling compound. See detailed instructions below. Other suitable substrates include wood and radiant heat flooring (refer to manufacturer's recommended installation instructions).

PRODUCT LIMITATIONS: Bona R580 is designed to reduce moisture vapor emissions that originate from below the membrane only. It does not affect other issues 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 R580:

- 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 an adhesive

TROWEL NOTCH REQUIREMENTS (Spread rate is approximate):

Replace as needed to achieve proper spread rate.

- Bona Spreader Trowel 500F / 1/16" x 1/16" fine V-notch / 130 sq. ft/gallon

APPLICATION: 2 Component system (4 hour dry time) – R580 comes with a foil packet containing a pre-measured catalyst (water) that accelerates the setting time when mixed together with the sealer. **1.** Add the entire contents of the foil pouch to the sealer and mix well using a mix paddle and drill. After the catalyst is added you will have 20 minutes of open time to spread the sealer before it begins to set. **2.** Spread sealer evenly on the substrate with the Bona spreader trowel using a snowplow application method. Bona R580 is designed to self-level and create a continuous membrane without the need for flat troweling. Note: If using a leveling compound, you will need to broadcast quartz sand into the wet sealer within 40 minutes of application. See instructions below. 1 Component system (6 hour dry time) – R580 can also be used as a single component system without the catalyst. Mix well using a mix paddle and drill. Follow the instructions above beginning with #2. Flooring should be installed or leveling compound applied within 72 hours. If no leveling is needed, to protect membrane from possible job-site contamination, once dry, cover with 1 mil poly sheeting. Peel back sheeting in working sections as R851 adhesive and flooring is installed.

LEVELING COMPOUND: The substrate must be level to 3/16" in a 10 foot span. If not, you must use a Portland Cement-based leveling compound. The Bona R580 Moisture Barrier Sealer is applied to the slab *prior* to the application of the leveling compound. **1.** When the sealer is still fresh and wet (no longer than 40 minutes), broadcast quartz sand (36-60 grit / 30-50 USS mesh or .3 - .8mm grain size) into the R580 sealer until rejection. **2.** After the sealer has dried (4 to 6 hours), sweep and vacuum the excess sand from the entire surface. The sand provides a strong, mechanical bond for the leveling compound. **3.** Apply leveling compound following manufacturer instructions and required dry times prior to applying Bona R851 Adhesive and installing floor.

Maintenance

CLEAN-UP: Replace foil liner on top of any unused sealer in pail prior to storage. Clean sealer from tools and surfaces using mineral spirits (best removed when sealer is still wet).

STORAGE: Store in a climate controlled environment. Keep from freezing. Do not store for extended periods above 90°F (32°C).

Order Information

Item#	Size	#/Case	Lbs./Case
BR58002500USBO	2.5 Gallon	1	28