

# Bona® R540



A one-component, roll-on moisture membrane.

Bona® R450 is a single component, roll-on moisture barrier and primer, used to mitigate floor moisture issues such as cupping.

- Helps mitigate potential moisture issues, like cupping, originating from below the membrane, in new and existing construction
- One coat can be used for damp proofing concrete subfloors up to 95% RH & 18 lbs.
- Dries fast allowing nail-down installation immediately
- Easy to apply- rolls on



# Bona® R540

## TECHNICAL DATA

<b>Base:</b>	Polyisocyanate Prepolymer
<b>Density:</b>	9.51 lbs/gallon
<b>Flash Point:</b>	Closed cup: >410°F (>210°C)
<b>US Regulatory VOC:</b>	0 g/L VOC formulation as calculated per SCAQMD Rule 1168
<b>Odor:</b>	Solvent
<b>Color:</b>	Transparent brown
<b>Moisture Levels:</b>	Certain installation situations will require moisture testing with a moisture protection range of 3lbs/75% RH to 18 lbs/95% RH. Maximum 6lbs/80% RH over radiant heat. Unlimited moisture protection with Bona Quantum Flow. Refer to Bona Quantum Flow TDS for detailed instructions.
<b>Packaging:</b>	5-liter jugs
<b>Shelf life:</b>	12 months from date of manufacture in unopened, original packaging
<b>Storage/Transport:</b>	Store in a climate-controlled environment. Do not store for extended periods above 90°F (32°C). Freeze thaw stable
<b>Application Tools:</b>	Bona Adhesive Applicator or Heavy duty caulk gun
<b>Coverage:</b>	400-600 Square feet per coat
<b>Curing time:</b>	24 hrs
<b>Clean-up:</b>	R540 is difficult to remove once dried. Take care not to step in wet product to avoid unwanted transfer of material to other surfaces. Wet material can be cleaned up with mineral spirit. Dried R540 must be mechanically removed.
<b>Disposal:</b>	Dispose of contents and container in accordance with all local, regional, national, and international regulations.

*BEFORE USING, READ ALL DIRECTIONS AND MATERIAL SAFETY DATA SHEET. FOR TECHNICAL ADVICE: Call Bona US at 800-872-5515*



# Bona® R540

## RESPONSE

**PREVENTION** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves: Nitrile rubber. Wear eye or face protection. Wear protective clothing. Wear respiratory protection. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: If breathing is difficult, remove person to fresh air and keep

comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. If experiencing respiratory symptoms: Call a POISON CENTER or physician. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

## RECOMMENDED USE

Commercial and residential. Use with solid or engineered prefinished and unfinished flooring; on, above, or below grade 1. May be used on both wood and concrete substrates 2.1 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. 2 After proper site conditions, moisture testing results and substrate preparation have been met. See Directions for Use” for acceptable jobsite conditions.

## SUITABLE SUBSTRATES

- PVC, LVT, metal, wood, stone, concrete, recycled rubber, floors with leveling compounds, gypsum-based

substrates, floor, and wall, OSB, Plywood, and mastic asphalt floors (with intact sand surface)

## PRODUCT LIMITATIONS

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Bona R540 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 R540

- 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/LVT
- On chemically treated woods (stain, preservatives, etc.)
- As a leveling compound
- As an adhesive



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## PREPARATION

### ACCLIMATION AND SITE CONDITIONS

Building climate control systems 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 manufacturer's instructions. Acclimate Bona® R540, Bona QUANTUM® adhesive sausage, Bona Vertical, Bona QUANTUM® R851, Bona Quantum Flow, or Bona QUANTUM® T to the room temperature of installation;

usually overnight. Certain installation situations will require moisture testing with a moisture protection range of 3lbs/75% RH to 18 lbs/95% RH. Maximum 6lbs/80% RH over radiant heat. **UNLIMITED MOISTURE PROTECTION** When using one coat of Bona R540 and a Bona 1500G trowel in conjunction with Bona Quantum Flow, and a leveling compound has not been installed, moisture protection is unlimited and testing is not required. Concrete surface must be dry to the touch.

## SUBSTRATE PREPARATION

The 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, 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/or leveling compound. The 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, two coats of Bona R540 Moisture Barrier Sealer should be applied to the slab prior to application of the leveling compound. Dry sand should be broadcast into the second coat of R540 (while wet, until rejection) prior to the application of leveling compounds. Always refer to leveling compound manufacturer's recommendations for detailed installation instructions. Other suitable substrates include wood and radiant heat flooring (refer to manufacturer's recommended installation instructions).



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## APPLICATION

As a primer, roll Bona R540 Moisture Barrier and Primer evenly to the substrate using a ¼" nap roller, or similar, at the rate indicated in the chart below. Avoid the formation of puddles, or heavy spots. Allow to dry to a transparent film. Alternatively, apply Bona R540 as follows: Working out of a paint tray, pre-saturate a roller with Bona R540. To minimize product set up, work in 4' by 10' sections, and no more than 4' x 20' sections. Pour a 3-4" puddle of product spanning the width of the area you wish to seal, about 2' from starting wall. Roll out Bona R540 in 4' sections, 2' on either side of the poured puddle. Work across the floor until section is complete. Repeat, pouring a new 3-4" puddle 2' from the previously rolled section. Be sure to overlap into previously section. Continue working in this manner until the entire floor is sealed).

## COVERAGE

When used as a vapor retarder on unsealed wooden subfloors: 1 coat at 300-400 square feet. When used as a primer on sealed subfloor systems: 1 coat at 400-600 square feet (test for compatibility). For moisture barrier protection (up to 18 lbs. or 95% RH) on concrete: 1 coat\* at 400 square feet (when used with Bona 1250G or 1500G trowel and any Bona Silane Adhesive). Apply two coats, each at 400 square

If used as a moisture barrier over cementitious substrates, a second coat can be applied when the first coat is dry to the touch and within 24 hours. When used as a vapor retarder for nail down installations only, allow one coat of Bona R540 Moisture and Primer to dry 1-2 hours or when dry to the touch. When using Bona R540 Moisture Barrier and Primer in conjunction with Bona QUANTUM™ sausage, Bona QUANTUM™-R851, Bona Quantum Flow or Bona QUANTUM™ T Wood Floor Adhesives, whether as a nail-glue assist or full trowel, dry Time of Bona R540 Moisture Barrier and Primer 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. See chart on next page for more details.

feet for any other installation not meeting the above criteria, and prior to installation of leveling compounds or patches. \*Two coats of R540 are required prior to installation of leveling compounds or patches. Broadcast sand into the second coat of wet Bona R540 prior to application of leveling compounds or patches.