

---

# t e c h n i c a l   o v e r v i e w

## **Solid Wood Flooring vs. Engineered Wood Flooring**

Solid hardwood flooring, as the names suggests, is solid wood of the same species throughout the thickness of each plank. Engineered hardwood flooring, in comparison, includes a wear layer of the species glued to a plywood backing. The wear layer of engineered products can differ in overall thickness and the cut of the veneer.

BR-111™ 5/16" Engineered has a sliced veneer wear layer of approximately 1/20". Dolomites and Triangulo® Engineered products feature a thick-sawn wear layer approximately 1/8".

Sliced veneer and thick sawn wear layers provides a natural hardwood flooring presentation. A rotary cut veneer, on the other hand, gives a repetitive pattern to wood flooring. Because of the veneering process, engineered flooring from BR-111™ provides the appearance of a solid wood floor when installed.

BR-111™ 5/16" Engineered cannot be re-sanded. It can, however, be screened and re-coated. The Dolomites Engineered and Triangulo® Engineered products can be re-sanded approximately two times, due to their 1/8" wear layers.

Engineered hardwood flooring is constructed with an odd number of cross-grained plywood veneers that offer 8 – 16 times more dimensional stability than solid wood flooring.

In areas of uncontrolled environments, such as beach houses where the owners like to turn off their air conditioning units and let the natural breeze into their home, an engineered hardwood flooring product may be a better choice than a solid hardwood, particularly thinner solids like the BR-111™ 5/16" x 3 1/8".

Thin solids, because of their size, are particularly prone to dimensional change in uncontrolled environments that experience extreme humidity swings. Thin solids are better suited to controlled environments of 35-55% humidity.

Relative humidity (RH) is responsible for adding and subtracting moisture from an environment. The RH, coupled to a much lesser degree with the temperature, controls the amount of moisture in an area. High RH means high moisture. Wood flooring will absorb the moisture and expand. Low RH means the wood will lose moisture and shrink.

---

## Installation Recommendations

- **Solid 3/4"** Nail/Staple-down – 15 lb felt paper recommended.
- **Solid 5/16" & 7/16"** Nail/ Staple-down - 6 mil poly underlayment required.
- **Solid 5/16 & 7/16"** Glue down - Moisture cured urethane only.
- **Engineered 3/8"** Dolomites & Triangulo® Nail/Staple-down - 6 mil poly required.
- **Engineered 3/8"** Dolomites & Triangulo® Glue-down - Moisture cured urethane only.
- **Engineered 5/16"** Glue down - Moisture cured urethane only. **DO NOT NAIL/STAPLE**

**All Engineered** can be **floated** and is required to be installed using the leading brand 2 in 1 (moisture barrier) floating floor pad with leading brand PVA-2 floating floor glue.

**NO solid wood flooring can be floated.**

### Glue-down direct to concrete

All concrete must be tested for moisture before installation. BR-111™ highly recommends the use of a moisture protection system, especially when gluing down thin solids to concrete slabs. Due to greater dimensional stability and if moisture tests reveal a dry slab, engineered flooring products may not require a moisture protection system.

A variety of adhesive manufacturers provide a comprehensive moisture protection warranty with their moisture protection systems. See the BR-111™ installation instructions for recommended adhesive manufacturers.

---

## **Color Variation Within The Species**

Most exotic species have a large color range and varied grain patterns, adding to the unique character of the flooring product.

Sales associates should make the consumer aware of natural ranges of color within each species. To a limited extent, BR-111™ does sort its products for color and in most cases, BR-111™ Exotic Hardwood Flooring is finished natural without any stains.

The BR-111™ brochure and web site are excellent consumer resources, offering product photography of each product line that clearly shows the wide range of colors within each species.

As a sales associate, you may occasionally hear a customer remark: “I like these two boards in the sample, but not these others” or “I want all the flooring to match.”

Take the time to review natural color variation with the customer and use product photography as an example. Product swatching is not a perfect science and often a display sample cannot show the full range of natural shades and grain patterns in an exotic hardwood floor. The opposite can also happen, where the sample actually shows more color variation than the floor will after installation.

Please point out, in a positive way, that exotic hardwood flooring is natural and each plank and species is unique. While every effort is made to show the best example of the product in the samples, with the nature of exotic wood species, this is not always possible. Variance from the store sample to the installed hardwood flooring should be expected.

---

## Color Fastness

Some species become richer and darker with exposure to natural light.

Approximately 50-60 percent of the color change will occur in the first 3-4 months after installation. The completion of the process takes an additional 9 – 12 months.

Changes in color may only become evident to the consumer after a period of months, or when they remove a rug that reveals a lighter color of the floor. The areas open to natural light have richened and darkened. Simply exposing this area to natural light will start the color change process and eventually the previously covered area will blend in with the surrounding floor.

The key word is “eventually,” as the amount of time needed for the change depends on the amount of time the area has been covered. The newly uncovered area will change in the initial 3-4 months, but may take more months, perhaps even a year, to match completely.

With the extreme photosensitive species, like Brazilian Cherry, it is best to advise the consumer that the floor when delivered to the house and first installed may be a few shades lighter than the sample in the store. Why? If the sample has been in the store for a long period, allowing it to go through its natural color change, then it will be showing the rich, full shades of the wood species.

Here’s another tip to help you explain photosensitivity. Most of the photographs on the back of the BR-111™ samples and in our brochure are studio shots. Material was taken fresh from the box, laid on a studio floor, and photographed. As a result, the image on the back of the sample may be a few shades lighter than the wood in the sample. Take this opportunity to explain photosensitivity to the consumer. Show them the photograph and explain that their floor may be a lighter shade when it is first installed.

In addition, advise customers to regularly move area rugs when cleaning to help darken the floors evenly throughout the room. Eventually, after moving furniture or rugs, lighter areas will blend in with the rest of the floor.

Keep a positive tone when discussing photosensitivity. For example, suggest to the customer: “If you love your floor when it is first installed, you will not believe how good it looks when it richens and darkens.” Typically, this approach works much better than a negative comment about color change.

The photosensitive species that go through this natural change are identified on your display.

---

## **All Wood Floors Scratch And Dent**

The above statement is a good point to start when discussing the wear of any wood floor. Yes, a lot of the exotics are extremely hard. Yes, aluminum oxide finishes are superior and hardwearing. That being said...all wood floors scratch and dent.

It is usually the finish that scratches. With aluminum oxide finishes, scratches appear as fine white lines in the wear surface. Darker species show the scratches to a greater extent than lighter species. Scratching and denting is not covered in any manufacturer warranty. Pets, especially with uncut nails, can and will scratch floors.

Scratches, dents, and gouges make up the fine patina of wear that goes with any wood floor. The primary use of the wood floor is to be walked upon. It is not a fine piece of furniture. It has a job and a function that is to be lived with and walked upon. Scratches, nicks, and scars are inevitable.

Color touch up pens can be used to minimize the appearance of the scratch marks. BR-111™ has found that products like “Guardman Furniture Touch Up Pens” work well to put a little color back and help mask white scratches.