

Exotics Behaving Badly

Avoid these common callbacks with imported species

By Kim M. Wahlgren

Installing wood flooring may not be rocket science, but there's a lot that can go wrong anyway. Different job sites, changing moisture conditions and difficult customers can all make day-to-day life as a contractor more ... well, challenging. Throw a multitude of exotic species into the mix, and the likelihood of problems seems to increase exponentially. Sourced from all corners of the Earth, today's wood flooring doesn't always behave the way we expect wood flooring to, and that can cause major headaches. Here are some of the most common reasons contractors get called back to the job site after installing exotics, and how to (try to) avoid them in the first place.

Color Change

What it is: Just as with light-sensitive domestic species such as cherry, color change with exotics can be a problem in two ways. The most common stems from the floor changing color only in some areas due to part of the floor being covered, often with an area rug or piece of furniture. With some species that change color quickly, the color difference can even be a problem when the floor is covered temporarily on a job site. Complaints can also arise from the entire floor changing color (usually when customers are expecting the color they saw on an aged sample but have a new floor that hasn't aged yet). Yet another problem with color change happens when most of the floor darkens except for an area of sapwood that stays a lighter color. Most woods darken with light exposure, but there are a few that lighten with exposure.

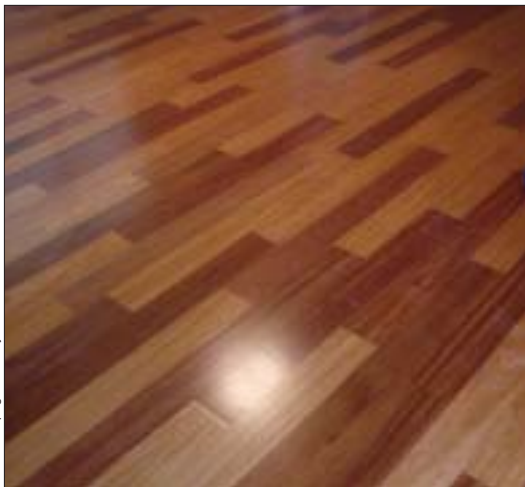
Common species: Brazilian cherry/jatoba, tigerwood (shown), many others

What to do about it: There's no way to prevent color change. Educate the customer when they are considering a species known to drastically change color. Provide them with samples showing what the species looks like new and after aging. After the fact, the best answer is to simply let the previously covered area "catch up" to the rest of the floor. If the customer can't wait that long, resanding is the only option (although in some severe cases, even resanding won't fix it). If a floor needs to be covered on a job site to protect it from other trades, be sure every square inch of the floor is covered. If customers won't accept the appearance of a single board, board replacement may be the only option.

Color Variation

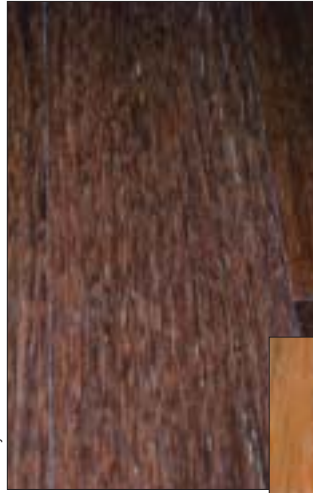
What it is: Once the floor is installed or racked out, the customer objects to the wide color variation of the boards.

Common species: Many (timborana shown)



Photos this page courtesy of Rick Jones

What to do about it: Be sure you show customers an accurate representation of the species, not just a small sample. Be clear on what the manufacturer's proprietary grading rules are so you know what to expect from the product you order. And be sure you're buying product from a reputable manufacturer—one that is more likely to have its own reliable grading standards.



Courtesy of Rick Jones

White Spots

What it is: White spots that appear over time—often months after the floor has been sanded and finished.

Common species: Brazilian cherry/jatoba (stair tread shown below), Brazilian teak/cumaru (shown at left), tigerwood



Courtesy of Roy Reichow

What to do about it: Lab testing has shown that these spots are calcium carbonate. Although they are sometimes visible on the unfinished wood, other times there is no way to tell ahead of time where the white spots are going to occur.

Like other wood grain characteristics, they are simply considered part of the species. The white spots are most likely to occur with waterborne or oil-modified polyurethane finishes and generally don't happen with solvent-based finishes such as conversion varnish, moisture-cure urethane and shellac.

Some contractors educate customers ahead of time about the spots, others simply hope they don't occur and still others just avoid installing species prone to the white spots. If customers object once the spots have appeared, most contractors opt for board replacement.

With factory-finished flooring, the spots may or may not be allowed per the manufacturer's grading rules.

Gapping and Cupping

What it is: Just as with many standard domestic species, moisture problems are an issue with exotics. But



Courtesy of Roy Reichow

several factors can make exotics particularly tricky. They are extremely dense woods, making them stronger and stiffer, which puts more stress on fasteners when the woods swell. (These factors can also make the woods difficult to nail. Contractors may tend to use fewer fasteners than they normally would, and tongues may tend to split.)

Adding to potential moisture problems is the fact that most exotics originate in much more humid climates. When they are installed at a much higher moisture content (MC) than they will have over time, permanent gaps in the floor will appear.

With engineered products, cupping often occurs when the flooring is installed in a low relative humidity (RH) environment.

Common species: Any (floor shown with gapping is Brazilian teak/cumaru; cupped floor is Brazilian cherry/jatoba)

What to do about it: Many exotics take a much longer time to acclimate to a job site than contractors expect, so don't be caught off guard. Moisture testing the wood—with the right adjustments on the moisture meter for the species used—is critical. Also, realize that many exotics appear to be dimensionally stable when tested in a lab but seem to behave differently on actual job sites, so don't rely on published rankings of dimensional stability as a guarantee of stability.

Experiment with which fastener to use, the angle and the pressure so that tongues don't crack. Some species are so hard that predrilling is the only effective way to fasten them.

For engineered flooring, maintain RH at an acceptable level for that product. If you know the RH will get



Courtesy of Genia Smith



Courtesy of Roy Reichow

too low, a different product may be necessary.

Face-Checking

What it is: Long cracks in the veneer that run along the length of the board in engineered flooring. It typically occurs when flooring is manufactured at a higher MC and installed where it will be exposed to much lower relative humidity (RH). As the veneer dries, it is held in place by the glue and fractures as it shrinks.

Different manufacturing problems, such as the face veneer and core veneer being manufactured at different MC levels or having different dimensional change coefficients, can make this issue even worse. Rotary peeled veneer will face-check more



easily than a sliced veneer. A sawn face, if very thick (3.5 to 4 mm), can also tend to face-check if not well-controlled by humidity levels being maintained in the home.

Common species: Any (top photo is engineered tiete chestnut, photo above is engineered Brazilian cherry)

What to do about it: Again, many exotic products are manufactured abroad with a much higher MC than they will have once they're installed on the job site. Be sure you buy from a reputable manufacturer, and be especially wary if the installed floor will experience low RH either year-round or seasonally.



Courtesy of Roy Reichow

Finish Adhesion (Lack Thereof)

What it is: The finish or stain won't adhere well to the floor due to the oily nature of the wood.

Common species: Many (stained Brazilian walnut/ipé floor shown)

What to do about it: If you haven't worked with that species and finish or stain before, test it before trying it on a job. The adhesion problem is most common with oil-modified polyurethane, which may need extensive dry times over some species.

Regardless of the finish, it's a good idea to

put down the first coat of finish immediately after the final sanding, before the oils in the wood have a chance to migrate back up to the surface. Another technique some contractors use is to wipe the floor down with a solvent compatible with the finish immediately before finishing to remove the oils. ■

Sources for this story included: Howard Brickman, Brickman Consulting; Rick Jones, Swiff-Train Company; Mickey Moore, Wood Flooring Advisors; Roy Reichow, National Wood Floor Consultants Inc.; and Rusty Swindoll, NWEA.

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