

5 WAYS TO AVOID FLOOR SQUEAKS

TAKE THESE TIPS TO HEART TO DELIVER QUIET FLOORS AND SATISFIED HOMEOWNERS

BY ROY FANARA

Unless your home's going to be the set for a horror movie, no one likes a squeaky, creaky, popping floor in their new home.

The problem is that homeowners only notice (and call the warranty department) when their floors make unwanted noises, and then it's too late to do it right and avoid being haunted by callbacks and customer complaints.

Consider these five tips to deliver quiet floors and keep homeowners happy:

1. KNOW YOUR SUBFLOOR

Unwanted noises in the subfloor can typically be attributed to the use of inferior subflooring material, poor installation practices, or a combination of both.

Spongy floors not only feel inferior and lead to creaks and pops across the finished floor, they can also damage the finished flooring material, causing hardwood floors to cup (or crown) and tile floors to crack.

2. CHOOSE THE RIGHT SUBFLOOR MATERIAL

Low-quality, commodity-grade subfloor panels are made to meet a lower price

point, not a high-performance threshold. In short, you get what you pay for.

Using low-grade materials for the subfloor also places pressure on your framer to install the subfloor panels more precisely and to perhaps sand them down to help

mitigate—but probably not completely eliminate—the potential for bounciness, squeaks, and pops.

Conversely, high-quality subfloor panels come with no-sand guarantees, 50-year (or even lifetime) warranties, and other



To maintain the glue's integrity, subfloor panels should be installed one at a time and glued to joists before fastening using manufacturer-approved screws or ring-shank nails.

benefits. When properly specified and installed over the joists, quality panels help ensure floors are quiet and stay that way.

Plywood is a popular subflooring choice because it is strong, durable, and easy to install. Made of wide, long, thin layers of wood veneer glued together, plywood accepts a variety of finished flooring options.

By comparison, oriented strand board (OSB) subfloor panels are made from thinner, smaller wood strands than plywood layers and are pressed together with wax and resin, making them strong and durable.

The debate about whether plywood or OSB is better for subflooring is legendary in the building industry, but the bottom line is that whichever one you specify, make sure it is the correct thickness and load capacity for the floor frame you've built and the finish you'll put on top of it.

3. ENSURE A QUALITY INSTALLATION

Choosing the right materials is only half the battle; ensuring a quality installation is equally critical to avoid squeaks or an uneven surface. Make sure crews follow these essential tips:

- Slope the floor no more than $\frac{3}{16}$ inch over a 10-foot span or $\frac{1}{8}$ inch over a 6-foot span. (Ideally, there shouldn't be any slope.)
- Leave a $\frac{1}{8}$ -inch gap on all sides of each subfloor panel to allow for expansion and contraction due to seasonal temperature swings and moisture changes.

These gaps are very important. If the subfloor isn't allowed to expand and contract, it will warp and buckle, causing fasteners to loosen and floors to bounce and squeak.

- Glue subfloor panels to the joists before fastening and apply only one panel at a time to maintain the glue's integrity.

Also, polyurethane foam adhesives possess inherent vibration-dampening properties. Commonly used in multi-



A $\frac{1}{8}$ -inch gap along all panel joints allows for expansion and contraction due to seasonal temperature swings and moisture changes. Without that gap, panels can buckle at the joints and may require sanding to achieve a level floor.

family and multistory townhomes and clusters, it effectively reduces incidental noise transmission through shared floors and ceilings and minimizes the potential for squeaks.

- Fasten subfloor panels to joists using manufacturer-approved screws or ring-shank nails for a far more reliable hold to the framing members.

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4. FRAME THE FLOOR FOR SILENCE

So far we've focused on the subfloor as the primary culprit of noisy floors, but inadequate joist sizing and spac-

ing or poor installation and using substandard floor framing materials can also lead to structural weaknesses that won't adequately support the anticipated live and dead loads of the finished floors. The result: bouncy, sagging, or uneven floors

that signal a substandard job and undermine your profitability and reputation.

5. MITIGATE MOISTURE INFILTRATION

Finally, proper moisture protection of the entire house—but especially the floor system—is essential to avoid mold growth, wood rot, and warping of the frame and subfloor. Those issues will not only lead to unwanted noises but also to unpleasant odors ... and a hefty cost to remediate.

The National Wood Flooring Association estimates it costs roughly four to five times more to remediate squeaky floors after a home has closed escrow than if the builder had used premium-quality materials and best installation practices from the start.

How much more motivation do you need? **PB**

Roy Fanara drives quality and performance in home building as a building performance specialist at IBACOS.