



Weyerhaeuser

HARDWOOD STRIP FLOORING AND EDGE™ AND EDGE GOLD™ OSB STRUCTURAL PANELS

Weyerhaeuser Edge™ and Edge Gold™ oriented strand board (OSB) flooring panels are high quality structural panels with a reputation as some of the best OSB products available. These panels are manufactured by combining precisely cut wood strands with controlled amounts of wax and resin, then pressing them together under high temperatures to form panels that are maximized for strength, stiffness, and stability. Edge™ and Edge Gold™ panels feature limited warranties and Edge Gold™ panels include a limited 200-day no sand guarantee. The reliable performance of Edge™ and Edge Gold™ panels is the reason for their proven success as a subfloor under hardwood strip flooring.

A Proven Product

Leading hardwood flooring manufacturers and major hardwood flooring associations recognize OSB as a proven substrate material for hardwood floor applications. OSB is more resource efficient, structurally consistent, and less prone to delamination than plywood.

The National Wood Flooring Association (NWFA) now approves $2\frac{3}{32}$ " and thicker OSB panels that have been glued and fastened for use under hardwood floors.

Adequate substrate material is only one of many factors to consider when installing wood floors. Proper floor preparation and structural support, moisture acclimation, and quality installation practices are also critical elements in any successful hardwood floor application.

Installation Guidelines

Most building codes, along with a number of industry associations, have published specific guidelines for installing OSB subfloors. Many wood flooring manufacturers have also established specific installation requirements and will only warrant their product if it has been installed per those specifications. In general, most guidelines for proper installation of an OSB floor system, and the hardwood flooring installed over it, include the following recommendations:

- To minimize moisture issues, the basement floor should be poured, all concrete and drywall should be cured, and all doors

and windows should be in place prior to installing the hardwood strip flooring. The crawlspace must be kept dry (i.e.; properly drained with a vapor barrier ground cover installed) both prior to and after installation. If installing during warm months, the building must be well ventilated; during the winter months, heating should be maintained near occupancy levels.

- Use Edge™ and Edge Gold™ panels that are at least $2\frac{3}{32}$ " thick. Verify that floor joist spacing meets the hardwood manufacturer's recommendations. *NWFA Installation Guidelines*⁽¹⁾ specify at least $2\frac{3}{32}$ " thick panels for floor joists spaced 19.2" o.c. or less, and $\frac{7}{8}$ " thick panels for floor joists spaced 24" o.c.
- To increase floor stiffness and help prevent squeaks, vibrations and bounce, glue the panels to the joist in addition to nailing or screwing. Weyerhaeuser suggests using only solvent-based subfloor adhesives that meet ASTM D 3498 (AFG-01) performance standards. When latex subfloor adhesive is required, careful selection is necessary due to a wide range of performance between brands.
- When installing the subfloor, leave a $\frac{1}{8}$ " gap at all the ends and edges of each panel to allow for normal expansion. The tongue-and-groove profile on Edge™ and Edge Gold™ panels automatically gaps the long edge of the panel. For improved performance, the tongue-and-groove edges should also be glued together.

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The overall design of a floor system—including joist depth, spacing, and type of floor panel used—plays a significant role in the success of a hardwood floor installation.

- For panels 1" thick or less, use 8d (0.131" x 2½") nails to completely fasten the panel to the joists. For panels thicker than 1", use 10d (0.148" x 3") nails. Screws of an equivalent root diameter and length may be used instead of nails. When fastening with screws, Weyerhaeuser recommends using screws from a manufacturer that can provide an ICC-ES Evaluation Report. Do not use drywall screws.

Keep all fasteners at least ⅜" from panel edges. Recommended maximum fastener spacing is 6" o.c. along supported panel edges and 12" o.c. along intermediate supports (joists) in the panel field, unless specified otherwise.

- As the sub-floor is installed, make sure it stays level (no high or low spots) and sand any raised joints flat. Lightly countersink protruding nail heads and re-nail areas of the subfloor as needed to help eliminate nail pops and potential squeaks. With screws, tighten heads slightly into panels to ensure panels are securely fastened against framing.
- Prior to laying the hardwood strips, floor panels should be free of debris and dust. They should also be dry, with a moisture content of not more than 4% over the expected in-use average moisture content of the flooring. See the following table.

Average Yearly MC for Wood in Various North American Regions⁽²⁾

Region	Average MC Range of Wood (%)
Coastal	8–12
Inland	6–10
Drier Climates	5–9

- Hardwood is generally manufactured to a moisture content (MC) of 6%–9%, but it can absorb moisture from humid air when in storage and during shipping. Therefore, schedule delivery of the hardwood only

after the house has dried. Unwrap flooring and allow it to acclimate in the home with the HVAC system operating prior to installation.

During installation follow manufacturer recommendation for acceptable differences in MC between subfloor and acclimated flooring. **Typically, the difference in MC should be no more than 4% for solid strips less than 3" wide, and no more than 2% for planks 3" and wider.** A moisture meter can be used to check MC of subfloor and hardwood.

- Once the subfloor is properly prepared, work area is enclosed, and hardwood strip flooring is acclimated, it should be installed by a professional following the recommendations of *NWFA Installation Guidelines⁽¹⁾* and/or the flooring manufacturer.

While these guidelines will help ensure a successful hardwood floor installation, the overall design of a floor system—including joist depth, spacing, and type of floor panel used—plays a significant role as well. For additional information on installing Weyerhaeuser Edge™ or Edge Gold™ floor panels, visit woodbywy.com. In cases where a higher performance floor is desired, call your Weyerhaeuser sales representative for design assistance.

References

- NWFA Installation Guidelines*, National Wood Flooring Association, 2011, nwfa.org.
- Managing Moisture and Wood, Building Performance Series No. 6*, Canadian Wood Council, 2004.

For more information about storage, safety, and installation of Edge™ and Edge Gold™ floor panels, see the Technical Resource Sheet, Floor, Roof and Wall Panel Installation OSB-4004 or contact your Weyerhaeuser representative.



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 Reorder OSB-4005

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