

WHY 7/8" EDGE™ SUBFLOOR



Code Compliance

Cool Enough for Energy

Energy losses in homes can be substantial. According to the U.S. Department of Energy, **ductwork in unconditioned spaces can account for a 20-40% loss in cooling/heating capacity and increase energy costs by 15%.**¹ Section 403 of the 2012 IECC sets considerable goals to eliminate distribution system losses in residential and commercial buildings.²

As builders respond by moving ductwork from an unconditioned space into floor cavities, 7/8" Edge™



subfloor at 24" on center creates an ideal spacing to meet this challenge for the building community. Material usage is also optimized by the use of deeper TJI® Joists with the capacity for larger hole cutting to accommodate HVAC ductwork.

Hardwood Flooring's Recommended Option

Although 23/32" panels are span-rated for floor systems spaced at 24" on-center, the National Wood Flooring Association (NWFA) suggests a thicker subfloor is necessary to reduce deflection of the subfloor and minimize pops and squeaks in the wood flooring. **The NWFA recommendation is to use a 7/8" panel, such as Edge™ subfloor, for floor systems spaced at 24" on center.**³

In addition, 7/8" panels have as much as a 20% increase over 23/32" panels in fastener withdrawal capacities assuming similar installation conditions.

Performance*

Better Performance for Tile

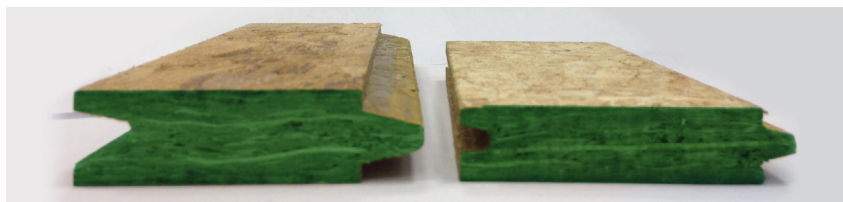
One of the most overlooked characteristics of successful tile installations is the tile industry's expectation for sufficient stiffness in the underlying wood framing. It requires more stiffness from subfloor panels than the typical L/360 calculation in the building code. In APA's *Technical Topics: Ceramic Tile Over Wood Structural Panel Floors* (Form No. TT-006C), they provide guidelines for **two-layer wood residential tile assemblies** based on those included in the Tile Council of North America Handbook.⁴

Weyerhaeuser's 7/8" Edge™ subfloor satisfies the recommended capacity for those two-layer wood residential tile assemblies across typical joist on-center spacing. Further, compared to a 23/32" OSB panel, 7/8" Edge™ subfloor is **more than twice as stiff** and produces less than half the expected subfloor curvature between joists, which can help prevent tile and grout cracking. Continue to use a suitable underlayment such as a cementitious tile backer or a backer recommended by the tile manufacturer, and see APA's publication for more information.

L/360 Uniform Load Capacity (PSF) of Residential Floor Panel Systems*

Nominal Subfloor Thickness	Normal Orientation, Strength Axis Perpendicular to Supports		
	16" o.c.	19.2" o.c.	24" o.c.
APA Recommendation	550	450	250
7/8"	1064	582	282

*Based on APA publication Technical Topics: Ceramic Tile Over Wood Structural Panel Floors, Form No. TT-006C.



7/8" compared to 23/32"

<p>7/8" Edge™ subfloor with TJI® Joists spaced:</p> <p>24" vs. 19.2"</p> <p>19.2" vs. 16"</p> <p>Long Radius of Curvature</p>	<p>23/32" Plywood/OSB with TJI® Joists spaced:</p> <p>19.2" vs. 16"</p> <p>Short Radius of Curvature</p>
<p>The floor panel system with a short radius of curvature results in a much “sharper” curve, therefore, a floor finish will be required to flex more than a system with a large radius of curvature.</p>	

Floor Panel Deflection and Curvature

Specification of **thicker Edge™ subfloor can result in a longer radius of curvature of the floor panel between joists**, even when floor joists are designed at greater on center spacing. A thicker Edge subfloor uses fewer TJI Joists and can result in a "flatter" floor system.

The diagram to the left illustrates the typical effect on two floor systems, both featuring TJI® Joists.

EDGE FLOOR PANEL BENEFITS

- Easy-fit T&G for hassle-free installation
- Engineered to stay flat
- Reduced callbacks
- Reliable delivery
- Economical, and available when you need it
- 25 year limited warranty

LIMITED 25-YEAR STRUCTURAL WARRANTY

Weyerhaeuser Edge® OSB Single-Layer Flooring

Weyerhaeuser EDGE

What Is Covered?

Weyerhaeuser Edge® OSB Single-Layer Flooring (Edge panels), when properly installed as single-layer flooring in a home, is warranted by Weyerhaeuser NR. Covers Weyerhaeuser against delamination for a period of twenty-five (25) years from the date of the original purchase of the home.

Definition of Covered Conditions

Delamination is defined as an irreversible separation of strata within a panel, which results in a reduction of the structural capacity of the panel. Minor localized edge chipping or loose strands on the surface of the panel does not constitute delamination. This warranty does not cover the performance of Weyerhaeuser Edge® panels outside the U.S. and Canada, or delamination due to:

- Foreign exposure to water before, during, or after completion of construction.
- Fire, theft, or man-made or natural disasters.
- Manufacturing or construction defects in the home.
- Damage to or improper maintenance of the panel prior to or during installation.
- Noncompliance with installation instructions, applicable building code, or generally accepted construction practices.
- Damage to or improper maintenance of the finished floor covering.

Notes:

Delamination is caused by wood fungal decay or rot. Use any wood product, all wood-based panels may be at risk for fungal decay or rot when exposed to repeated wetting or high moisture environments, particularly if not properly ventilated. For this reason, manufacturing, design, and use features must ensure Weyerhaeuser Edge® panels are protected from such exposure by appropriate finish coverings for floor and wall systems. This warranty does not cover mold, fungal decay or rot.

What Weyerhaeuser Will Do

For delamination covered by this warranty, Weyerhaeuser will pay for the repair or replacement of the single-layer flooring (excluding removal and replacement of subfloor). This includes the single-layer flooring, and floor covering at wholesale cost, and the reasonable cost of labor. Weyerhaeuser's total liability will not exceed the original cost of the floor and the reasonable cost for removal of existing flooring materials.

What You Must Do

You must notify Weyerhaeuser in writing of any claim under this warranty within thirty (30) days of the discovery of warranted delamination at the following address:

Weyerhaeuser Product Assurance Group
20020 Weyerhaeuser Way South
Federal Way, Washington 98003
1-800-828-5223

Upon request, you must provide Weyerhaeuser with reasonable proof of delamination in the form of a panel sample, a photograph of the delamination, along with a panel or panels of similar kind.

A Weyerhaeuser representative must be given the opportunity to inspect the floor prior to any alteration, change, or repair.

Incidental or Consequential Damages

Weyerhaeuser is not responsible for delamination as set forth in this warranty and Weyerhaeuser will not be responsible for incidental, indirect, or consequential damages. Some states and provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

State Law Rights

This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state and province to province.

**No delamination.
We guarantee it.**



(1) Modera, Dr. Mark (2014). *Remote Duct Sealing in Residential and Commercial Buildings: Saving Money, Saving Energy and Improving Performance* [PowerPoint Slides] Retrieved from Lawrence Berkeley National Laboratory, State Energy Advisory Board; (2) energystar.gov/index.cfm?c=home_improvement.hm_improvement_ducts; International Code Council, 2012 International Energy Conservation Code, Section 403: Commercial/Residential Energy Efficiency Code; (3) 7/8" Edge Gold or other subfloors with similar thickness; NWFA Installation Guidelines, Chapter 4 – Wood Subfloor Guidelines, Part IV – Panel Products Subflooring, Section E – Acceptable Panel Subfloors provides minimum acceptable thicknesses of panel subflooring, depending on spacing of the floor joists; (4) Tile Council of North America, Interior Floors Over Wood, Page 119; F149-12 and F155-12

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