



by Weyerhaeuser

STRUCTURWOOD® RADIANT BARRIER SHEATHING (RBS)

Featuring Product Specifications and Installation Instructions for Residential Use

- Reflects the Sun's Radiant Energy
- Increases Energy Efficiency
- Minimizes Heat Transfer to Living Spaces
- Textured Exterior Surface for Sure Footing
- Structurwood® Quality and Consistency



#OSB-4100 SPECIFIER'S GUIDE

www.iLevel.com
1.888.iLevel8 (1.888.453.8358)



WELCOME TO iLEVEL

iLevel is an exciting new brand and business within Weyerhaeuser. iLevel brings the most innovative and trusted products for residential construction together under one roof. Within iLevel, you'll still find all the reliable, brand-name building products that you've been using— Trus Joist® engineered wood products and design software, Structurwood® engineered panels, Performance Tested™ lumber, and more. But with iLevel, you'll work with only one service-oriented supplier to get all of these products and the support you need to build smarter.

iLevel. A family of brand-name building products...
a source for innovative ideas and solutions...
a supplier that's simpler to do business with.

Frame the Roof and Foil the Sun

Installing a radiant heat barrier is an efficient, cost-effective way to help keep interior living spaces comfortable while saving energy costs. Structurwood® Radiant Barrier Sheathing (RBS) provides all these benefits with no additional labor or material hassles.

Thanks to an innovative wood-resin combination, every Structurwood® RBS panel is manufactured flat, installs flat, and stays flat; and has been engineered to precise specifications so it resist problems like cupping, warp, and sag. The radiant foil layer is perforated for ventilation, to protect against condensation and moisture build-up.

As an added plus, Structurwood® RBS can even help keep unair-conditioned, uninsulated rooms like garages, workshops, and porches cooler, increasing a home's usable space. A cooler attic is not only better for storage, it also puts less strain on attic-mounted appliances and ductwork.

WHY USE STRUCTURWOOD® RADIANT BARRIER SHEATHING?

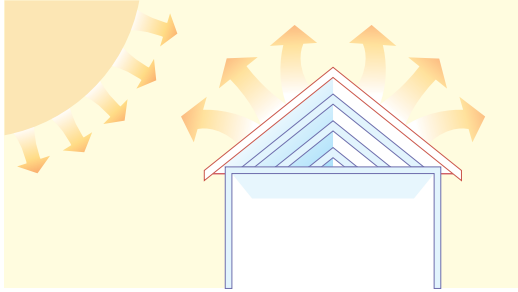
Here's why:

- reflects 97%⁽¹⁾ of the sun's radiant energy to help lower utility bills⁽²⁾
- easy, one-step installation
- Structurwood® quality and consistency
- long-term, reliable performance

(1) 97% reflectivity and 3% emittance measurements were derived by using an infrared reflectometer on the aluminum foil laminate in accordance with ASTM E408, Method A.

(2) Actual savings will depend upon local utility rates, home size, and climate.

How Structurwood® RBS Works



Foil-laminated Structurwood® RBS panels reflect the sun's radiant energy back outside, away from the attic and house. Up to 97%⁽¹⁾ of the sun's radiant energy is transferred away from the home, significantly lowering attic temperatures and reducing the amount of energy needed to cool the home.

How Traditional Roof Sheathing Works



Radiant energy transferred through standard roof sheathing creates heat build-up in the attic. With no barrier to restrict the heat, it radiates through the insulation into living spaces, causing room temperatures to rise. More energy is needed to cool the house, and that means higher energy costs for homeowners.

iLevel® Structurwood® RBS Roof Panels

- Strong, stable, and uniform.
- Engineered to stay flat.
- Manufactured with specially designed adhesives that provide secure foil attachment and better durability.

4' x 8' Structurwood RBS panels are available from iLevel Service Centers in three thicknesses: 7/16", 15/32", and 19/32".

Product Specifications

Structurwood® RBS is manufactured in accordance with Voluntary Product Standard PS2, which is recognized by:

- Current and legacy codes set by the International Code Council and its members (IBC, IRC, BOCA, UBC, SBCCI, and CABO).
- The National Fire Protection's NFPA 5000 code.
- U.S. Department of Housing and Urban Development (HUD/FHA).

Exposure 1 Bond Classification

Structurwood® RBS is manufactured to an Exposure 1 bond classification. Exposure 1 panels are suitable for uses where they are not permanently exposed to the weather; they are intended to resist the effects of moisture on structural performance due to construction delays or other conditions of similar severity.

Application and Handling Guidelines

- Do not exceed the span limitations shown on each panel's grade stamp.
- Improved perforations in the foil allow for drainage and ventilation.
- The foil face of Structurwood® RBS does not compromise the structural integrity of the sheathing or negatively affect composition roofing materials.
- Structurwood RBS has a textured exterior surface for sure footing during rooftop installation.

Like any wood-based panel or product, Structurwood® RBS is at risk of fungal decay or rot if exposed to repeated wetting or high-moisture environments. Wood-based panels exposed to these conditions may deteriorate, lose strength, or support mold growth, so it is critical that they are protected during transport, storage, construction, and installation. Some examples of adequate protection include:

- Cover Structurwood® RBS Sheathing with a tarp during shipping.
- Keep sheathing dry and out of standing water prior to installation. Store at least 4" off the ground.
- Store sheathing under a roof with minimum exposure to moisture.
- Only install Structurwood® RBS in a roof system that protects materials from moisture and allows for drying.

Maximum Spans and Allowable Uniform Roof Live Loads

Span Rating	Nominal Panel Thickness	Maximum Span		Allowable Live Load in PSF					
		With Edge Support ⁽¹⁾	Without Edge Support	Spacing of Supports					
				12" o.c.	16" o.c.	19.2" o.c.	24" o.c.	32" o.c.	40" o.c.
24/16	7/16"	24"	24"	190	100	65	40		
32/16	15/32"	32"	28"	325	180	120	70	30	
40/20	19/32"	40"	32"		305	205	130	60	30

(1) Edge support being tongue-and-groove edges, panel edge clips (one midway between each support, or two equally spaced between supports if 48" on-center or greater), lumber blocking, or other.

Structurwood® RBS panels are intended for dry-use applications

General Notes

- Table is based on:
 - Exposure 1 rated sheathing.
 - Uniform loads.
 - 10 psf dead load.
 - Deflection criteria of L/180 total load and L/240 live load.
 - 24" or wider panels, continuous over two or more spans with the long dimension (or strength axis) across supports.
- Special conditions (such as heavy concentrated loads) may require engineering design in excess of these minimums; alternatively, allowable live loads may have to be decreased for dead loads greater than 10 psf (such as with tile roofs).



Installation Guidelines

- Always make safety a priority on the jobsite. Proper personal protection equipment (PPE) is recommended for every person on the site and should include a hard hat, steel-toed shoes, safety glasses, high-visibility vest, and hearing protection (if required).
- Keep sheathing dry and out of standing water prior to installation; store at least 4" off the ground. Make sure sheathing is not damaged during storage or handling.
- Check building code requirements if using panel edge clips, as requirements vary depending upon the panel span rating and the rafter or truss spacing.
- Maintain a 1/8" gap along all edges. **DO NOT** glue roof sheathing.
- Avoid using panels that are less than 24" wide. If narrow panels must be used, do not install them at the ridge where they will experience heavier foot traffic during installation and maintenance. Place them in intermediate rows and make sure they cover at least two spans, with the long dimension running perpendicular to supports.
- Allow the sheathing to reach ambient moisture conditions before installing roof coverings. For best appearance, use heavyweight, textured, or laminated shingles to help hide any imperfections in the roof and to give the best appearance.



CONTACT US

1.888.iLevel8 (1.888.453.8358)

www.iLevel.com

iLevel@weyerhaeuser.com

2910 East Amity Road

Boise, ID 83716

208.364.3600

P.O. Box 8449

Boise, ID 83707-2449

Installation Instructions

1. **Level the surface.**
Make sure the framing is level and not twisted or bowed. Add shims or blocking as necessary to create a smooth, flat surface.
2. **Install Structurwood® RBS foil side down.**
 - Install sheathing foil side down (with foil against the rafters or trusses). When cutting panels, place foil side up.
 - Lay out sheathing so each panel covers at least two spans and the panel edges fall at the center of the supporting rafter or truss. **Leave a 1/8" gap around ALL edges.**
3. **Nail and fasten in place.**
 - Sheathing should be fastened to framing with code-approved fasteners. For example, use 8d common nails at 6" on-center at ends and edges, and 12" on-center at intermediate supports (in field of panel). Space fasteners 3/8" from panel edges. **High wind areas may require a different nailing schedule.**
 - Begin nailing by starting a row 3/8" from one edge, and work across the panel in rows. Continue working in rows until the panel is completely fastened. This technique keeps internal stresses, which could contribute to buckling later, from building up inside the panel.
4. **Provide required airspace and ventilation.**
To achieve an effective radiant barrier, a minimum airspace of 3/4" is required between the foil surface and other materials (such as insulation). Do not allow materials other than rafters or trusses to come in contact with the foil side of the installed sheathing. Additional ventilation may also be required to avoid moisture accumulation under sheathing; check all applicable building codes.
5. **Cover roof to protect from weather.**
Minimize exposure to weather by covering the Structurwood® RBS with 15# roofing felt (use 30# for extended exposures) that meets ASTM D226 or ASTM D4869 standards.
6. **Install shingles.**
Make sure roofing felt is flat and smooth before installing shingles. Follow all recommendations provided by the shingle manufacturer.

DEALER INFORMATION

November 2008
Reorder OSB-4100

This document supersedes all previous versions. If this is more than one year old, contact your dealer or iLevel rep.
TVL

▲Weyerhaeuser®, iLevel®, Structurwood®, and Trus Joist® are registered trademarks and All In One™ and Performance Tested™ are trademarks of Weyerhaeuser. © 2008 Weyerhaeuser Company. All rights reserved.
Printed in the USA.