



## TuffTier® OSB Sub-Flooring Panels

### Product Information and Installation Instructions: Site-Built and Modular Construction

Important notice to buyers and users of RoyOMartin OSB: These instructions are not intended to cover every installation contingency. If any questions or problems arise concerning the installation of this product or its suitability for the purchaser's particular use, inquiries should be made to RoyOMartin ([www.royomartin.com](http://www.royomartin.com)).

The information about the products and application instructions printed herein is current at the time of publication; however, in accordance with RoyOMartin's policy of constant product improvement, the right is reserved to vary these application instructions and product specifications without notice. Please ask for the most recent product information when placing your order.

## DESCRIPTION

TuffTier® OSB Sub-Flooring is an oriented strand board (OSB) Sturd-I-Floor panel designed for residential and light commercial construction. It is made of wood strands aligned in three layers - alternate layers are positioned at approximately right angles to one another. The layers are blended with resins and formed into continuous mats and bonded by heat and pressure. The orientation of strands creates a stable panel with greater strength in the long panel dimension than across the width. OSB flooring panels are manufactured to be free of knots, core voids, grain defects, and splits. The panels are coated with a seal on all four (4) edges for added moisture resistance and dimensional stability. In addition to these features, TuffTier® also boasts a unique, self-spacing, APA- approved T&G profile to allow for easy installation.

## STORAGE AND HANDLING

All OSB materials should be stored to avoid direct moisture. If possible, store panels under a roof or protected area.

- Inspect the protective bag when received for tears and repair with staples and/or tape before storing.
- Store in a warehouse under cover of a roof or on concrete floors supported by a minimum of four (4) inches off the ground, remembering to rotate unit inventories frequently.
- When stored outdoors, cover panels loosely with a protective material. Clear or similar-type plastic covering is not recommended. If plastic or tarps are used, anchor them on top of the unit, keeping them away from the sides and bottom to ensure good air circulation and ventilation around the panels.
- After delivery to the final destination cut the banding on the unit to prevent edge damage before acclimation.
- Allow 24 hours for panels to acclimate to the surrounding environmental conditions prior to installation. Exposure to extended rain, snow or similar elements compromises product performance and may void the warranty.

TuffTier® OSB Sub-Flooring panels are intended for protected construction applications. If subjected to rain or standing water during normal construction, the panel edges may swell, and mild surface roughening may occur. These reactions are normal when compressed wood products are exposed to water. If edge swelling and surface roughening occur, touch-sand panels where necessary after they completely dry, including in the T&G joint.

Protect edges to avoid damage to the T&G profile. Space units about 4" on all four sides.

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Use reasonable care to avoid dropping panels on the edges, as chipping and damage to corners may occur.

## WORKABILITY

Utilize standard woodworking tools to saw, drill, and rout TuffTier® OSB Sub-Flooring panels.

## CERTIFICATION

TuffTier® OSB Sub-Flooring panels are certified by APA-The Engineered Wood Association and are manufactured as Exposure 1 durability in conformance with APA PRP-108 and U.S. Voluntary Product Standard PS2. The panels conform to the ICC Evaluation Service Legacy Report NER-108 for APA and are approved under the APA Rated Sheathing Standard.

## FIRE RATING

TuffTier® OSB Sub-Flooring is generically recognized as having a Class C or Class 3 fire rating without need for test or label by: HUD/FHA Manual of Acceptable Practices, Section 405-8 to the Minimum Property Standards.

Interpretive Bulletin

C-1-76 to the HUD Manufactured Home Construction and Safety Standards.

## APPLICATIONS

TuffTier® OSB Sub-Flooring panels are ideally suited sub-floor systems in commercial and residential building projects, and some utility applications.

## LIMITATIONS

TuffTier® OSB Sub-Flooring panels are not designed for unprotected exterior use. Additional protective measures may be necessary during extended exposure to the elements. (See [APA Figure](#) for storage recommendations.)

## CODE COMPLIANCE

TuffTier® OSB Sub-Flooring panels meet or exceed APA requirements and are recognized in the Uniform Building Code, the International Building Code, and the International Residential Code, and by the HUD Use of Materials Bulletin Number UM-40c.

## AVAILABLE SIZES AND THICKNESSES

Thickness (category)	Width (nominal inches)*	Length (nominal inches)*	Pieces (unit)
19/32	48	96	63
23/32	48	96	50

\*Sized for Spacing

## SPAN RATING

19/32	20 O.C.
23/32	24 O.C.

## INSTALLATION

### Before Installation

- Allow panels to acclimate to existing moisture conditions and allow wet framing to dry.
- Refer to [APA E30U](#)
- Refer to [APA U425](#)

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## General Information

- Install panels directly over floor joists.
- Install panels continuously over 2 or more spans with long dimension or strength axis across supports.
- Panels must be installed with APA trademark stamp faced down.
- Provide adequate ventilation and use ground cover in crawl spaces.

## Glue-nail Application

- Use of APA Glued Floor System is recommended to ensure greater floor stiffness and reduce nail popping and floor noise.
- Stagger end joints in each succeeding row. 1/8" spacing is recommended between all end joints. Use spacer tool if necessary.
- Slide panels into place. Tap using a block to protect T&G edges if necessary. Do not force – T&G is self-spacing allowing for gap along edges.
- Fasten panels 3/8" from panel edges.
- See IRC 2021 Table R602.3(1) for fastener size and schedule.

## APA Glued Floor System

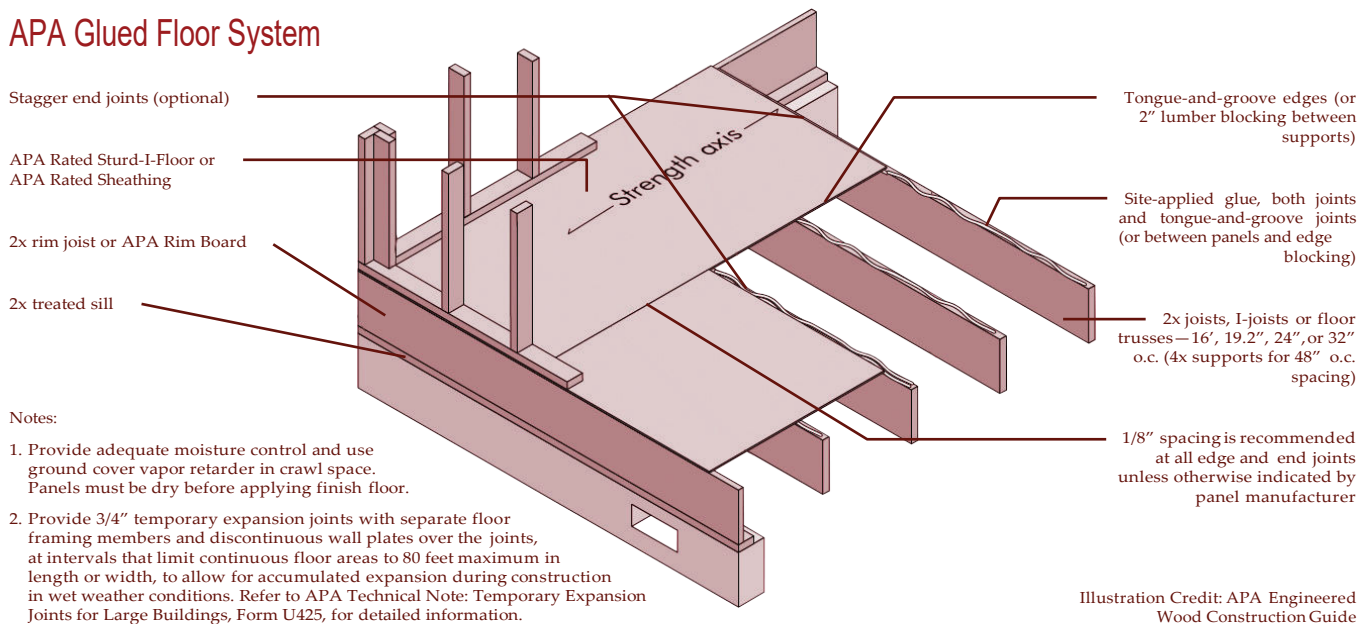


Illustration Credit: APA Engineered Wood Construction Guide

## Fastening Schedule Table

(See APA table on page 45 on the following link [APA Engineered Wood Construction Guide Excerpt: Floor Construction](#))

**\*If OSB is exposed to moisture, allow all the panels to dry before installing materials.  
Do not install flooring materials over wet panels.**

# TuffTier® OSB Sub-Flooring Panels

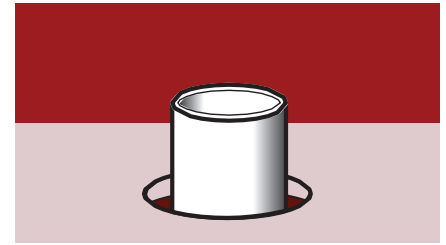
## UTILITY

### Cutouts

Cutouts for plumbing and electrical components shall be oversized by at least 1/4" to avoid a force fit. DO NOT PUNCH HOLES.

### Fastening

Fasten panels to within 3/8" of panel edges using the fastener size and spacing recommended in the application tables. See APA tables on the following pages for additional information or visit [www.apawood.org](http://www.apawood.org).



## Recommended Uniform Roof Live Loads for APA RATED STURD-I-FLOOR With Strength Axis Perpendicular to Supports\*

Panel Span Rating	Minimal Panel Performance Category	Maximum Span (in.)		Spacing of Supports Cent-to-Center (in.)							
		With Edge Support	Without Edge Support								
				12	16	20	24	32	40	48	60
24 o.c.	23/32	48	36	--	240	160	100	50	30	20	--
20o.c.	19/32	32	32	270	150	100	60	30	--	--	--

\* APA RATED SHEATHING and APA RATED STURD-I-FLOOR panels 24 inches or wider applied over two or more spans.

## APA Panel Subflooring

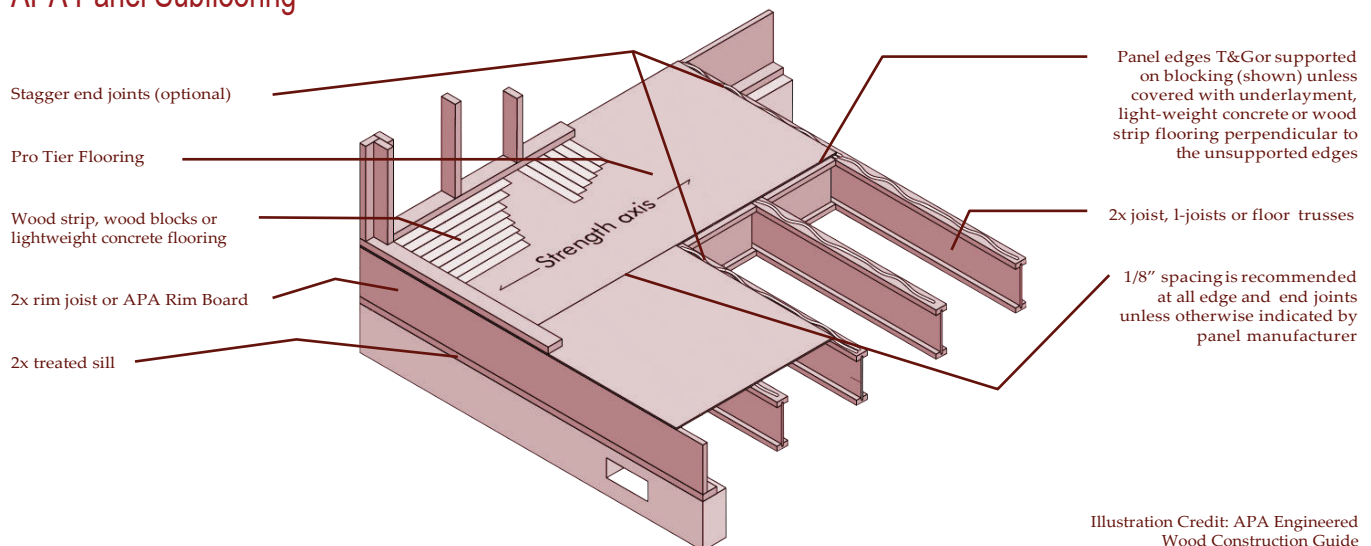


Illustration Credit: APA Engineered Wood Construction Guide

## Recommended Uniform Floor Live Loads for APA Rated Sturd-I-Floor and APA Rated Sheathing with Strength Axis Perpendicular to Supports

Sturd-I-Floor Span Rating	Sheathing Span Rating	Minimal Panel Performance Category	Maximum Span (in.)	Allowable Live Loads (psf)			
				Spacing of Supports Cent-to-Center (in.)			
				12	16	19.2	24
20 o.c.	40/20	19/32	19.2	270	150	100	-
24 o.c.	48/24	23/32	24	430	240	160	100

## ADDITIONAL INFORMATION

TuffTier® Sub-Flooring is a wood-based product and caution should be used in storage of these products, as wetting will cause wood to swell. TuffTier® OSB Sub-Flooring is shipped, when provided, to these areas individually bagged. Panels should remain covered until point of installation.

Failure to follow responsible installation and handling instructions is not a manufacturing issue. If proper installation and/or handling procedures are not followed, it is not the responsibility of the manufacturer.

California Prop 65 Warning: Drilling, sawing, sanding or machining wood products generates wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or otherwise determine what safeguards or personal protection equipment may be necessary to prevent inhaling wood dust.