

**LP OSB Flooring**  
TopNotch®

**LP OSB Flooring**  
TopNotch® Orange Plus®





## Application and Specification Guide

### MANUFACTURER

LP

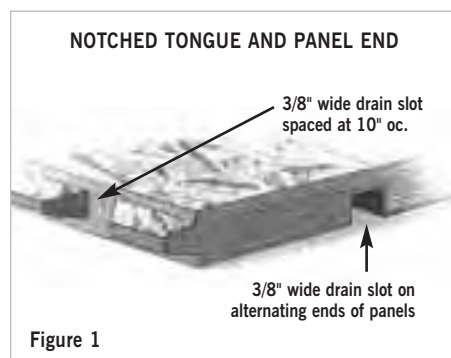
### PRODUCT DESCRIPTION

#### Basic Uses

- **Top Notch®**  weather resistant
- **Top Notch® OP**  weather and rain resistant
- Top Notch T&G flooring is a system for single-layer floor construction, consisting of oriented strand board panels with edges machined for tongue and groove jointing. Fastened over structural framing, it provides a structural floor deck.
- This system is designed for residential and light commercial construction, including manufactured and modular home applications.
- Panels 1" and 1-1/8" thick may be used as floor sheathing in commercial heavy timber construction.

#### Materials and Fabrication

- Top Notch T&G flooring panels are rigid and strong.
- Top Notch T&G flooring panels have a patented vertical notch in the tongue profile and in the end of the panel to allow standing water to drain during the construction period (Figure 1).



- The panels are edge coated, which increases their resistance to water penetration and reduces potential edge swelling.
- The panels are suitable for direct application of carpet over cushion, and of thick wood strip flooring and parquet flooring. Some wood flooring manufacturers may require additional underlayment. Consult manufacturer's installation instructions.
- Top Notch T&G panels may be used in combination with fiber-reinforced gypsum underlayment or finish flooring manufacturer-approved underlayment, 1/4" or 3/8" thick, as a substrate system for ceramic tile, resilient tile and sheet flooring (non-textile floorings). Refer to flooring manufacturer's specifications regarding adhesive and proper installation.

### Environmental Impact

LP building products are manufactured in accordance with the company's policy on protection of the environment which includes:

- Use of environmental control technology and energy efficient equipment to conserve resources.
- Using process by-products to produce heat and electricity, thereby conserving non-renewable energy sources.
- Harvesting timberland following sound practices dictated by the ecological requirements of the specific type of forest.
- Managing forests for fiber growth while also promoting biodiversity.
- Developing and marketing products which do not require material from sensitive environments such as old growth forests.

### SIZES

Top Notch T&G flooring panels are manufactured in the following standard sizes:

THICKNESS	WIDTH	LENGTH	EDGE
19/32"	48"	96"	T&G or square
23/32"	48"	96"	T&G or square
7/8"	48"	96"	T&G or square
1"	48"	96"	T&G or square
1-1/8"	48"	96"	T&G or square

**Note:** Panels are sized for spacing. To allow for 1/8" spacing, full-face panels are 47-7/8" wide, and 95-7/8" long. Scant face are 47-3/8" wide and 95-7/8" long. Panels will still fall on joints every 96" oc.

# LP OSB Tongue & Groove Flooring

## Workability

Top Notch T&G flooring panels have the following characteristics:

- Resist splits, cracks, splinters and delamination.
- Panels are designed to be free of knots, splits, checks and core voids.
- Panels are sound on both sides.
- Panels are easy to handle, cut and nail.
- Self-spacing tongue and groove edges simplify installation.
- Panels are stiff, strong and have a low coefficient of linear expansion.
- Provide a surface for additional framing or underlayment.

## Limitations

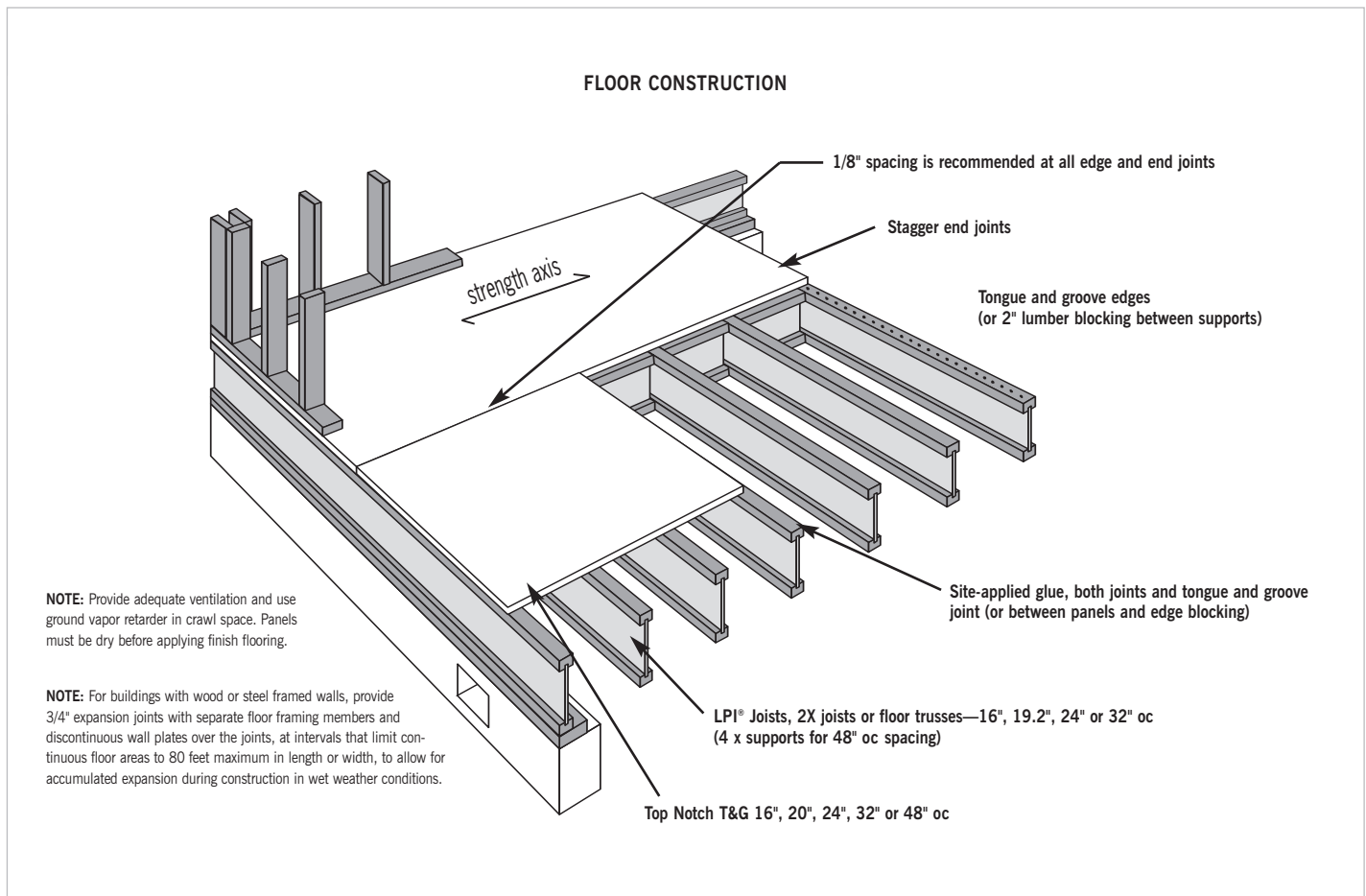
- Top Notch T&G flooring panels are not for unprotected exterior use. Exposure to weather during normal construction delays will not damage the panels. **ADDITIONAL PROTECTIVE MEASURES MAY BE NECESSARY DURING EXTENDED ADVERSE WEATHER CONDITIONS.**
- When tested according to APA® Test Method S-1, the panels' structural performance is not affected by slight surface flaking or thickness swell caused by reasonable exposure to rain.
- Do not install Top Notch T&G flooring directly over concrete or masonry.

## Technical Properties

Top Notch T&G flooring complies with the following industry standards and certifications:

- LP OSB panels are APA-certified (The Engineered Wood Association), and are manufactured in conformance with APA PRP-108 and U.S. Voluntary Product Standard PS2. These standards are recognized in the major model building codes: the National Building Code, the Uniform Building Code, the Standard Building Code, the International Building Code, and the International Residential Code, and by National Evaluation Service Report NER-108 and by HUD Use of Materials Bulletin No. 40c.
- LP OSB panels sold in Canada are also manufactured in conformance with CAN/CSA-0325, which is recognized in the National Building Code of Canada.

*NOTE: Material Safety Data Sheets are available from the LP website: [www.lpcorp.com](http://www.lpcorp.com).*



## INSTALLATION

### Storage and Handling

- Store panels in clean, dry areas, off the ground. If possible, store indoors. If stored outside, cover with plastic sheets or tarps. Keep cover open and away from the sides and bottom of the panels to allow for air circulation. Protect edges to avoid damage to tongue or groove edges.
- Additional protective measures are necessary during extended adverse weather conditions.

### General Requirements

- Before installation, allow panels to acclimate to existing moisture conditions. Top Notch T&G flooring panels are not for unprotected exterior use, however, exposure to reasonable precipitation during normal construction delays will not damage the panels.
- Refer to the following Top Notch T&G flooring installation instructions or the APA's Engineered Wood Construction Guide Form E30R (January 2001) or the current equivalent. These publications are available from APA **(253) 565-6600**.
- Install panels directly over floor joists. Fasten with conventional nailing, screwing and gluing techniques.
- Glue-nailing is highly recommended. It ensures greater floor stiffness and helps eliminate nail popping and floor squeaks.

### Job Conditions

- Do not install Top Notch T&G flooring directly over concrete or masonry.
- Provide adequate ventilation and use ground cover vapor retarder in crawl space.
- Install flooring on a dry, well-ventilated surface. Concrete substrates must be dry and cured before flooring installation. Allow wet wood framing to dry before flooring installation.
- Complete under-floor utility work – plumbing, heating, ventilation and air conditioning, electrical, etc.
- Required code inspections must be approved before flooring is applied.
- Support joists may be conventional nominal 2" solid sawn lumber or I-joists, manufactured trusses using either wood or metal chords. LP recommends the use of LP® Joists available in depths of 9-1/2" to 24" with lengths up to 48'.

### Recommended Glue-Nail Application

- Install panels continuously over two or more spans with long dimension or strength axis across supports.
- Snap a chalk line across joists 4' in from wall for panel edge alignment and as a boundary for spreading glue.
- **Use only adhesives conforming with Performance Specification AFG-01 developed by APA with the Glue Floor System.**

- Wipe any mud, dirt or water from joints before gluing. Spread only enough glue to lay one or two panels at a time or follow specific recommendations of glue manufacturer.
- Lay first panel with tongue side to wall and nail in place. This protects tongue of next panel from damage when tapped into place with block and sledgehammer.
- Apply a continuous line of glue, about 1/4" diameter, to framing members. Excessive use of glue may interfere with drain notches.
- Apply glue in a serpentine pattern on wide areas.
- Apply two lines of glue on joists where panel ends butt to ensure proper gluing of each end.
- After first row of panels is in place, spread glue in groove of one or two panels at a time before laying next row. Glue line may be continuous or spaced, but avoid squeeze-out by applying a thinner line (1/8") than on joists.
- Tap second row panels into place, using a block to protect groove edges. Do not force panels together or overdrive; the tongue and groove profile allows for 1/8" gap along the top joint.
- Stagger end joints in each succeeding row. A 1/8" space between all end joints and 1/8" at all edges is recommended. Use a spacer tool to assure accurate and consistent spacing.
- **Complete all nailing of each panel before glue sets.** (See Fastening Schedule). Check the manufacturer's recommendations for allowable time. (Warm weather accelerates glue setting). Use 6d ring- or screw-shank nails for panels 3/4" thick or less, and 8d ring- or screw-shank nails for thicker panels.
- Fasteners should penetrate into framing members at least 1".
- Space nails according to Fastening Schedule. Closer nail spacing may be required by some codes, or for diaphragm construction. Finished deck may be walked on and will carry construction loads without damage to glue bond.

**TOP NOTCH T&G STURD-I-FLOOR FASTENING SCHEDULE (a)**

SPAN RATING (MAXIMUM JOIST SPACING) (IN.)	MINIMUM PANEL THICKNESS <sup>(b)</sup> (IN.)	FASTENING: GLUE-NAILED (c)			FASTENING: NAILED ONLY		
		NAIL SIZE AND TYPE	MAXIMUM SPACING (IN.)		NAIL SIZE AND TYPE	MAXIMUM SPACING (IN.)	
			SUPPORTED PANEL EDGES	INTERMEDIATE SUPPORTS		SUPPORTED PANEL EDGES	INTERMEDIATE SUPPORTS
16"	19/32"	6d ring- or screw-shank <sup>(d)</sup>	12	12	6d ring- or screw-shank	6	12
20"	19/32"	6d ring- or screw-shank <sup>(d)</sup>	12	12	6d ring- or screw-shank	6	12
24"	23/32"	6d ring- or screw-shank <sup>(d)</sup>	12	12	6d ring- or screw-shank	6	12
32"	7/8"	8d ring- or screw-shank <sup>(d)</sup>	6	12	8d ring- or screw-shank	6	12
32**	1"	8d ring- or screw-shank <sup>(d)</sup>	6	12	8d ring- or screw-shank	6	12
48"	1-1/8"	8d ring- or screw-shank <sup>(d)</sup>	6	(f)	8d ring- or screw-shank <sup>(d)</sup>	6	(f)

(a) Special conditions may impose heavy traffic and concentrated loads that require construction in excess of the minimums shown. See APA Engineered Wood Construction Guide for heavy duty floor recommendations.

(b) Panels in a given thickness may be manufactured in more than one Span Rating. Panels with a Span Rating greater than the joist spacing may be substituted for panels of the same thickness with a Span Rating matching the actual joist spacing. For example, 19/32" thick Sturd-I-Floor 20 oc may be substituted for 19/32" thick Sturd-I-Floor 16 oc over joists 16" on center.

(c) Use only adhesives conforming to APA Specification AFG-01, applied in accordance with the manufacturer's recommendations.

(d) 8d common nails may be substituted if ring- or screw-shank nails are not available.

(e) 10d common nails may be substituted with 1-1/8" panels if supports are well seasoned.

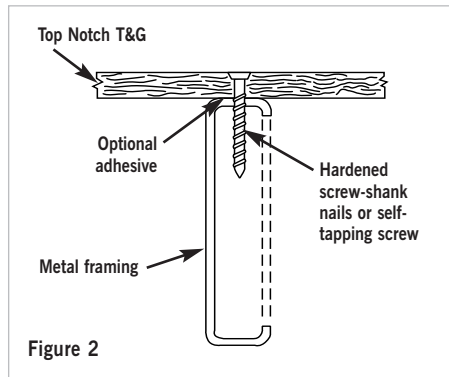
(f) Space nails maximum 6" for 48" spans and 12" for 32" spans.

(g) Fasten panels 3/8" from panel edges.

\*\*Either Sturd-I-Floor or Span Rated panels available.

## Top Notch T&G Over Metal Framing

- For metal framing application, fasten panels with screw-shank nails or with self-drilling, self-tapping screws plus adhesive. Consult metal framing manufacturer for recommended procedure and adhesive products (Figure 2). Fasten the panel to the metal framing system following the fastening schedule required for wood framing applications.



## Lightweight Concrete Over T&G

- For gypsum concrete recommendations, contact manufacturer of floor topping.
- Install panels continuous over two or more spans with the long dimension across supports. Refer to concrete manufacturer's recommendations for installation and treatment.

## FINISH FLOORING

- If Top Notch T&G panels have become wet during construction, they should be allowed to dry before application of finish flooring, including carpet, underlayment, hardwood, flooring, ceramic tile, etc. When panels are dry, check the floor for flatness, especially at joints.
- When floor members are dry and just prior to installation of thin floor coverings, ensure that fasteners are flush with or slightly below the panel surface. Fasteners should be set if green framing will present nail popping problems upon drying.
- Do not** fill nail holes. Fill and sand edge joints, if needed (this step may not be necessary under some carpet and structural flooring products. Check flooring manufacturer's recommendations). Fill any panel voids or depressions and sand all surface roughness.
- The National Oak Flooring Manufacturers Association approves the use of 23/32" thick LP Top Notch T&G flooring as a substrate for oak strip flooring.
- Top Notch T&G flooring is a suitable substrate for carpet installed with cushion, thick wood strip or parquet flooring. Some wood flooring manufacturers may require additional underlayment. Consult manufacturer's recommendations and installation instructions.
- LP recommends 1/4" or 3/8" thick underlayment over Top Notch T&G flooring with ceramic tile, sheet vinyl flooring, resilient tile flooring or other resilient non-textile flooring installations. Consult flooring manufacturer's directions on flooring underlayment recommendations, adhesive products and installation techniques.

## AVAILABILITY

Top Notch T&G flooring is available directly from LP's manufacturing plants by railroad, as well as piggyback and truckload shipment.

STANDARD PACKAGING THICKNESS	WEIGHT/ M SQ. FT.	4X8 PCS/BUNDLE
19/32"	1875 lbs.	60
23/32"	2190 lbs.	50
7/8"	3125 lbs.	50
1"	3312 lbs.	40
1-1/8"	3500 lbs.	30

Packaging varies by mill. Contact your nearest LP sales office.

# Specifications Guide

## TOP NOTCH® T&G and TOP NOTCH® Orange Plus® Flooring *Oriented strand board floor sheathing panels*

### Guide for Architectural Specifications SECTION 0611 – FLOOR SHEATHING

*NOTE: Edit the specification below to conform to project requirements. Specifier's choices are in brackets. Metric dimensions are in parentheses.*

#### PART 1: GENERAL

##### 1.1 Summary of Work

- A. Installation of oriented strand board floor sheathing panels.

##### 1.2 Related Work

- A. [Vapor barriers] [steel framing]. Wood structural framing [floor underlayment], floor finishes.

##### 1.3 References

- A. APA – The Engineered Wood Association.

##### 1.4 Submittals

- A. For each specified product, submit copies of manufacturer's specification sheets and published installation instructions and recommendations.

##### 1.5 Quality Assurance

*NOTE: Canadian standards are given in brackets.*

- A. Provide products that conform to the following APA requirements:
  1. Exposure 1.
  2. Sturd-I-Floor construction.
- B. Provide products that conform to the HUD/FHA Use of Materials Bulletin No. UM-40c.

- C. [Provide products that carry the Canadian code approval "CSA 0325 and/or CSA 0437."]
- D. Identify products with appropriate markings of applicable testing and inspecting organization and carry the APA – The Engineered Wood Association – Sturd-I-Floor Rating.

##### 1.6 Delivery, Storage and Handling

- A. Deliver materials to project site in manufacturer's original packaging with labels intact.
- B. Store panels in clean, dry areas. Stack product on pallets. If possible, store indoors or under cover. If stored outside, cover with plastic sheets or tarps. Keep cover open and away from the sides and bottom of panels to allow for air circulation.

##### 1.7 Project Conditions

- A. Before installation, allow panels to acclimate to existing moisture conditions.
- B. Avoid extended exposure.
- C. If excessive rain or standing water causes slight surface flaking or thickness swell, sand panel to acceptable flatness.

*NOTE: The condition above will not adversely affect the panels' structural properties.*

- D. Allow panels to dry before applying finish flooring.

##### 1.8 Sequencing

- A. Coordinate other trades so that wet work is dry before floor sheathing panel installation begins.
- B. Underfloor utility work and required inspections should be completed before installing floor sheathing panels.

#### PART 2: PRODUCTS

##### 2.1 Oriented Strand Board Floor Sheathing Panels

- A. Manufacturer: Top Notch T&G Flooring by LP, Nashville, TN.
- B. Panel Size: 4' (1220 mm) x 8' (2440 mm) nominal.
- C. Panel Thickness: [19/32" (15.08 mm)] [23/32" (18.56 mm)] [7/8" (22.23 mm)] [1" (25.4 mm)] [1-1/8" (28.38 mm)].
- D. Edges: Tongue and groove or square.

*NOTE: Consult LP's literature if additional technical material specifications are required for a tighter description of the product.*

##### 2.2 Fasteners

- A. Screws/Nails: Corrosion-resistant, as specified in APA Design/Construction Guide "Residential and Commercial Sturd-I-Floor Procedures."
- B. Other code-approved fasteners may be used.
- C. Glue: Solvent-based, conforming to performance specifications AFG-01 as developed by APA.

*NOTE: LP Top Notch T&G flooring panels 19/32" and 23/32" thick, can be installed with a 6d ring shank or screw shank nail or 8d common nails.*

##### 2.3 Accessories

- A. (Specify required accessories here.)

#### PART 3: EXECUTION

##### 3.1 General Requirements

- A. Refer to LP Top Notch T&G flooring installation instructions in this document or the APA's "Design/Construction Guide – Residential & Commercial," Form No. E30R, revised January 2001.
- B. Install floor sheathing panels over a dry, well ventilated surface (vapor barrier).

### 3.2 Examination

- A. Examine substrate for compliance with applicable requirements, installation tolerances and other conditions affecting the installation of floor sheathing panels. Do not proceed until unsatisfactory conditions have been corrected.

### 3.3 Glue-Nailing Installation

- A. Apply glue in strict accordance with glue manufacturer's specifications. Verify allowable open time and comply with manufacturer's requirements.
- B. Spread only enough glue to lay one or two panels at a time.
- C. Complete nailing of each panel before glue sets.
- D. Apply glue in a continuous line, approximately 1/4" in diameter to framing members. Over wider members, apply glue in a serpentine pattern. Apply two lines of glue on joists where panel ends butt.

*NOTE: Excessive use of glue may interfere with drain notches.*

- E. Glue and nail the first row of panels.
- F. Apply a 1/8" diameter line of glue in the panel groove.
- G. Install the second row of panels – and all subsequent rows – staggering end joints. Leave a 1/8" gap at panel ends.
- H. Glue panel grooves immediately before inserting tongue.

*NOTE: LP Top Notch T&G flooring panels are sized for spacing. The panels are 47-7/8" wide and 95-7/8" long allowing for this 1/8" gap, while still falling on joints 96" oc.*

*NOTE: Delete glue application instructions above if only nails are going to be used to install floor sheathing panels. Below is for glue-nailing and nailing alone installations:*

- I. Nail floor sheathing panels in accordance with panel manufacturer's nailing spacing recommendations for joist spacing and panel thickness indicated.
- J. Provide a 1/2" gap between flooring panels and concrete or masonry wall structures.

*NOTE: For a glue-nailing installation over steel framing, fasten panels with screw-shank nails or self-drilling, self-tapping screws plus glue. Consult framing manufacturer for recommended procedures and glue. Fasten the panel to metal framing systems following the load span recommendations required for wood framing systems.*

*NOTE: Install oversized panels up to 8' x 16' in the same manner as 4' x 8' panels are installed.*

*NOTE: Lightweight and gypsum concrete floors may be used over Top Notch T&G flooring panels. Install panels continuously over two or more spans with the long dimension across the supports. Refer to concrete manufacturer's specifications for installation and treatment.*

- K. Install (floor underlayment) (floor sheathing) as specified in the respective section.

## TECHNICAL SERVICES/SALES INFORMATION 800.648.6893

Call LP customer service or visit our web site for more information on Top Notch tongue and groove flooring and other products engineered for better living:

**Customer Service:** 800.648.6893 [www.lpcorp.com](http://www.lpcorp.com)

#### Sales Offices:

Conroe, Texas 800.964.6310  
Montreal, Quebec 514.861.5115  
Schaumburg, Illinois 800.365.7672

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Note: LP periodically updates and revises its product information. To verify that this version is current, please contact a sales office listed above.

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