Please verify availability with the LP SolidStart Engineered Wood Products distributor in your area prior to specifying these products.
**LP® SolidStart® Rim Board**

An integral part of LP’s framing package, OSB, LSL and cross-ply LVL Rim Board from LP Engineered Wood Products provides strong, cost effective solutions to your framing needs. Designed to match our LP SolidStart I-Joists, they are available in several depths and thicknesses. LP’s SolidStart Rim Board offers straightforward and quick installation as well as high strength reliability.

**The Role of Rim Board in a Building**

LP SolidStart Rim Board fills the space between the sill plate and the bottom wall plate, or between the top plate and bottom plate in multi-story construction. In addition to filling the void, rim board is an integral structural component that transfers both lateral and vertical forces. To function properly, rim board must match the depth of framing members. Traditional solid sawn lumber typically does not match engineered wood I-Joists, which is why LP SolidStart Rim Board is a perfect choice. Even for seemingly similar depths, lumber can shrink leaving it shorter than the I-Joist and useless.

**What Makes LP SolidStart Rim Board Different?**

LP SolidStart Rim Board is more convenient to use than field-ripped rim because it is precision cut to match the depths of LP SolidStart I-Joists and is manufactured in standard lengths of 12’ and 16’. Here are just a few of the benefits:

**Trouble-Free Workability**

- Easy to saw, drill, plane, file or sand with normal carpentry tools
- I-Joist compatible depths save time on the job-site
- Flat surfaces for easy installation of siding
- Precut depths mean less inaccuracies and time involved in ripping in the field

**Just The Right Size**

- Longer lengths may be available for LP SolidStart LSL and LVL
- I-Joist compatible depths for a perfect match

**Fire Blocking**

- 1” or thicker LP SolidStart Rim Board can be used as an alternate to 23/32” wood structural panel fire blocking
- 1-1/4” or thicker LP Rim Board can be used as an alternate to nominally 2” lumber fire blocking

**Materials & Fabrication**

LP offers three types of rim board: LP SolidStart OSB Rim Board, fabricated from oriented strand board; LP SolidStart LSL Rim Board, fabricated from Laminated Strand Lumber (LSL); and LP SolidStart LVL Rim Board, fabricated from cross-ply Laminated Veneer Lumber (LVL). All three types are precision cut to match the depths of LP SolidStart I-Joists.

The type of rim board you choose will depend on your specific project. OSB rim board comes in smaller thicknesses and is perfect for lower lateral load applications. Use LSL and cross-ply LVL rim board where loads are higher such as in commercial and multi-family structures.

**Cross-Ply LVL Rim Board**

While normal, non-cross-ply LVL products appear to be suited for use as a rim board, there are several reasons why that may not be the best choice, among which include a relatively low vertical load capacity and differing tolerances on the finished depth. LVL intended for use as rim board is ripped slightly taller than an I-Joist to ensure that all vertical load is transferred through the rim board rather than through the I-Joist.

LP manufactures a cross-ply LVL specifically for use as a rim board. This product differs from other LP LVL in that two veneers are cross-oriented (turned 90°) to provide enhanced vertical load capacity and cupping resistance, and is ripped to the proper depth tolerance. LP SolidStart LVL Rim Board is available in a standard thickness of 1-1/4” and may be custom ordered in thicknesses of 1-1/2” and 1-3/4”.

LP’s cross-ply LVL rim board is also the smart choice for mid-rise, wood-framed structures. The cross-oriented veneers resist swelling and shrinking through the depth – an important consideration for multi-story construction. The 1-1/2” and 1-3/4” thicknesses provide a wide nailing surface while the availability of long lengths reduces, and possibly eliminates, joints for continuous lateral load transfer.
NOTES:
1. The Vertical Load Capacity shall not be increased for short-term load duration.
2. Uniform Vertical Load Capacity is based on the capacity of the rim board and may need to be reduced based on the bearing capacity of the supporting wall plate or the attached floor sheathing. Example: The allowable bearing stress for commodity floor sheathing is 360 psi so the bearing capacity of a 1-1/4" x 10" deep rim board would be limited to 5400 plf (360 psi x 1-1/4" x 10).
3. The Concentrated Vertical Load capacity is assumed to be applied through a minimum 4-1/2" bearing length (3-stud post).
4. The Lateral Load Capacity is based on a short-term load duration and shall not be increased.
5. The Lateral Load Capacity is based on the connections specified in the Installation details below.
6. Additional framing connectors fastened to the face of the rim board may be used to increase lateral capacity for wind and seismic design.

### ALLOWABLE UNIFORM LOADS (PLF) FOR OSB RIM BOARD HEADERS: MAXIMUM 4’ CLEAR SPAN

<table>
<thead>
<tr>
<th>Material</th>
<th>Thickness</th>
<th>Rim Board Depth</th>
<th>9-1/2”</th>
<th>11-7/8”</th>
<th>2-Ply 14”</th>
<th>2-Ply 16”</th>
</tr>
</thead>
<tbody>
<tr>
<td>LP OSB</td>
<td>1”</td>
<td>11-7/8”</td>
<td>480</td>
<td>3210</td>
<td>2-Ply 14”</td>
<td>2-Ply 16”</td>
</tr>
<tr>
<td></td>
<td>1-1/4”</td>
<td>1240</td>
<td>3540</td>
<td>4800</td>
<td>1152</td>
<td>1670</td>
</tr>
<tr>
<td>LP LVL</td>
<td>1-1/4”</td>
<td>1750</td>
<td>4700</td>
<td>9350</td>
<td>4800</td>
<td>9350</td>
</tr>
</tbody>
</table>

### DESIGN VALUES (ALLOWABLE STRESS DESIGN - PSI)\(^1\)\(^2\)\(^3\)

<table>
<thead>
<tr>
<th>Material</th>
<th>Grade</th>
<th>Thickness</th>
<th>Bending F(_b)</th>
<th>Modulus of Elasticity F(_e)</th>
<th>Shear F(_s)</th>
<th>Compression F(_c)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LP OSB</td>
<td>APA Rated</td>
<td>1” &amp; 1-1/8”</td>
<td>600</td>
<td>550</td>
<td>270</td>
<td>550</td>
</tr>
<tr>
<td>LP LVL</td>
<td>1-3/8”</td>
<td>≥ 1-1/4”</td>
<td>1750</td>
<td>135</td>
<td>470</td>
<td>750</td>
</tr>
<tr>
<td>LP LVL (cross-ply)</td>
<td>1-1/4”</td>
<td>≥ 1-1/4”</td>
<td>1750</td>
<td>135</td>
<td>470</td>
<td>750</td>
</tr>
</tbody>
</table>

### CONNECTION CAPACITY FOR SIDE-LOADED 2-PLY RIM BOARD HEADERS (PLF)

<table>
<thead>
<tr>
<th>Material</th>
<th>Thickness</th>
<th>Minimum Nail Size</th>
<th>3 Rows of Nails at 6° oc</th>
<th>4 Rows of Nails at 6° oc</th>
<th>5 Rows of Nails at 6° oc</th>
<th>6 Rows of Nails at 6° oc</th>
</tr>
</thead>
<tbody>
<tr>
<td>LP OSB</td>
<td>1” &amp; 1-1/8”</td>
<td>8d (2-1/2&quot; x 0.113”)</td>
<td>768</td>
<td>1024</td>
<td>1280</td>
<td>1536</td>
</tr>
<tr>
<td>LP LVL</td>
<td>1-1/4”</td>
<td>8d (2-1/2&quot; x 0.113”)</td>
<td>864</td>
<td>1152</td>
<td>1440</td>
<td>1728</td>
</tr>
</tbody>
</table>

### NOTES:
1. This table represents the uniform side-load capacity of the connection for a 2-ply header. The total applied uniform load, including top-load and side-load, shall not exceed the allowable uniform load capacity of the header as tabulated above.
2. The tabulated side-load capacity is for normal load duration and shall be adjusted according to code.
3. Use 3 rows of nails for 9-1/2” and 11-7/8”; 4 rows for 14” and 16”; 5 rows for 18” and 20”; 6 rows for 22” and 24” deep rim board. Clinch the nails where possible.
4. Headers consisting of more than 2 plies, alternate fastening or higher side loads are possible but require proper design of the connection.
FASTENER VALUES FOR LP SolidStart® RIM BOARD

The tabulated Lateral Load Capacity values for LP Rim Board (page 3) are based on the connections specified in the Installation details below. These connections allow for the 16d nails, from the sole plate above, into the top edge of the rim provided the deck nailing is at least 6° oc and the 16d nails are spaced in accordance with the prescriptive requirements of the code. Decreasing the nail spacing will not necessarily increase the lateral load capacity and may cause splitting. To increase the lateral resistance, other connection details may be designed, such as adding framing anchors nailed to the face of the rim and the edge of the wall plate. The Fastener Design table below provides information on the equivalent specific gravity for nail, screw, lag, and bolt design in accordance with the National Design Specification for Wood Construction (NDS).

The prescriptive capacities for 1/2" x 4" (min) lag screws are also provided for ledger attachment. The Nail Spacing Requirements table at right provides guidance on the minimum nail spacing and edge distances. End, edge, and spacing distances for screws, lags, and bolts shall be as specified in the NDS.

Refer to APA product report PR-L280 or ICC-ES evaluation report ESR-2403 for complete connection information for LP SolidStart LSL and LVL.

NOTE: Material Safety Data Sheets (MSDS) are available online at www.lpcorp.com or by contacting customer support at 1.888.820.0325.

FASTENER DESIGN

<table>
<thead>
<tr>
<th>Material</th>
<th>Thickness</th>
<th>Nail Size</th>
<th>Fastener Orientation</th>
<th>Minimum End Distance</th>
<th>Minimum Nail Spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td>LP OSB</td>
<td>1&quot; &amp; 1-1/8&quot;</td>
<td>8d</td>
<td>Edge</td>
<td>2&quot;</td>
<td>4&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10d or 12d</td>
<td>Face</td>
<td>2&quot; &amp; 1/2&quot;</td>
<td>3&quot;</td>
</tr>
<tr>
<td>LPSL</td>
<td>≥ 1-1/4&quot;</td>
<td>8d</td>
<td>Edge</td>
<td>7/8&quot;</td>
<td>1&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10d or 12d</td>
<td>Face</td>
<td>7/8&quot;</td>
<td>1&quot;</td>
</tr>
<tr>
<td>LP LVL</td>
<td>≥ 1-1/4&quot;</td>
<td>8d</td>
<td>Edge</td>
<td>2-1/2&quot;</td>
<td>4&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10d or 12d</td>
<td>Face</td>
<td>2-1/2&quot;</td>
<td>5&quot;</td>
</tr>
</tbody>
</table>

NOTES:
1. Fastener design for each connection type listed above is for normal (10 year) load duration and shall be adjusted according to code.
2. Fastener spacing, end and edge distance shall be according to code except as specified in the Nail Spacing Requirements above.
3. The Equivalent Specific Gravity values shall be used to determine fastener capacities in accordance with the NDS.
4. The 1/2" Lag Screw capacity assumes a nominal 2x (1-1/2" thick) side material with full penetration into the main member. 1/2" through-bolts may be used in lieu of the lag screws. Proper washers shall be installed.
5. Refer to the “APA Performance Rated Rim Boards” (Form No. W945) for additional information.

NAIL SPACING REQUIREMENTS

<table>
<thead>
<tr>
<th>Material</th>
<th>Thickness</th>
<th>Nail Size</th>
<th>Fastener Orientation</th>
<th>Minimum End Distance</th>
<th>Minimum Nail Spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td>LP OSB</td>
<td>1&quot; &amp; 1-1/8&quot;</td>
<td>8d</td>
<td>Edge</td>
<td>2&quot;</td>
<td>4&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10d or 12d</td>
<td>Face</td>
<td>2&quot; &amp; 1/2&quot;</td>
<td>3&quot;</td>
</tr>
<tr>
<td>LPSL</td>
<td>≥ 1-1/4&quot;</td>
<td>8d</td>
<td>Edge</td>
<td>7/8&quot;</td>
<td>1&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10d or 12d</td>
<td>Face</td>
<td>7/8&quot;</td>
<td>1&quot;</td>
</tr>
<tr>
<td>LP LVL</td>
<td>≥ 1-1/4&quot;</td>
<td>8d</td>
<td>Edge</td>
<td>2-1/2&quot;</td>
<td>4&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10d or 12d</td>
<td>Face</td>
<td>2-1/2&quot;</td>
<td>5&quot;</td>
</tr>
</tbody>
</table>

NOTES:
1. Edge orientation refers to nails driven into the narrow edge: parallel to the face of the straonds for LP LSL or OSB Rim Board, or the face of the veneer for LP LVL. Face orientation refers to nails driven into the wide face: perpendicular to the face of the straonds for LP LSL or OSB Rim Board, or the face of the veneer for LP LVL.
2. Fasteners are common wire or box nails.
3. Nail penetration for edge nailing shall not exceed 2" for 16d nails and 2-1/2" for 10d and 12d nails.
4. 16d sinkers (3/4" x 0.148") may be spaced the same as a 10d and 12d common nail.
5. Edge distance shall be sufficient to prevent splitting.
6. Minimum nail spacing for the face orientation is applicable to nails that are installed in rows that are parallel to the direction of the grain (length) of the rim board. For nails driven into the face in rows that are perpendicular to the direction of the grain (width/depth) of the rim board, the minimum nail spacing must be sufficient to prevent splitting of the wood.
7. Multiple rows of nails shall be offset at least 1/2" and staggered, and equally spaced about the centerline of the edge or face (whichever applies).
8. Minimum end distance may be reduced to 2" and minimum nail spacing may be reduced to 4" when LP LSL is 1-1/4" thick and the nail penetration into the LSL does not exceed 1-3/8". The minimum nail spacing may be reduced to 4" for 1-1/2" LP LSL and to 5" for 1-3/4" and thicker LP LVL, subject to the nail penetration of note 3.
9. Face nailing spacing and end distance for LP OSB Rim Board shall be sufficient to prevent splitting. Refer to the “APA Performance Rated Rim Boards” (Form No. W945) for additional information.

INSTALLATION

RIM TO JOIST CONNECTION

Nail rim to joist with one 8d (box or common) or 10d box nail into flange.

NOTE: Additional framing connectors to the face of the rim board may be used to increase lateral capacity for wind and seismic design.

3. Trim the tongue or groove of the floor sheathing in accordance with the T&G Trim Requirements table.

T&G TRIM REQUIREMENTS

See T&G Trim Requirements table below for when to trim tongue or groove.

NOTE: Use of this product may result in exposure to wood dust, known to the State of California to cause cancer.