Thermal Resistance

Decking will normally require additional insulation to meet today’s energy codes. Rigid insulation or structural insulated panels can be installed over the decking to provide the desired insulating capacity.

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Guide Specifications

Species: Select face from Western Red Cedar, Idaho White Fir, White Pine, Ponderosa Pine, Douglas Fir/Larch, or Southern Pine.

Grades: Supreme, Decorative, Service.

Textures: Select face from smooth surface, smooth sanded, course sanded (16 grit), resawn (cross band-saw texture), or wire brushed.

Nominal Sizes: 2x6, 2x8, 3x6, 3x8, 4x6, 4x8, 5x6, and 5x8.

Lengths: Random 6’ to 16’ or specified lengths up to 24’. End matched tongue-and-groove is standard. Square ends or end-matched available up to 20’. Lengths 18’ to 24’ may have structural finger-jointed lumber.

Pattern: Standard vee, square edge, channel, bull nose.

Moisture Content: 10% to 12% average, maximum 15%.

Adhesives: 100% exterior waterproof type, meeting ASTM D2559. Laminated decking is cured under pressure using high frequency electronics in a radio frequency (RF) press.

Factory Finish: Use factory applied, oven dried, acrylic semi-transparent colors.

Quality Control: Lumber to be graded under American Softwood Lumber Standard grading provisions. Glueline certification complies with ASTM D205 and AITC 200. Laminating is certified by an independent inspection agency.

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Examples of Typical Roof Assemblies

**Roof Slopes Over 4:12**

- Vapor Barrier
- Plywood or OSB Sheathing
- Wood or Asphalt Shingles

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**Roof Slopes Under 4:12**

- Vapor Barrier
- Rigid or Nail Base Insulation
- Built-up Roofing Membrane

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Thermal Resistance Calculation (R)

For Laminated Roof Deck Systems

<table>
<thead>
<tr>
<th>decking</th>
<th>cedar</th>
<th>white fir</th>
</tr>
</thead>
<tbody>
<tr>
<td>thickness</td>
<td>western face</td>
<td>idaho white &amp; ponderosa pine</td>
</tr>
<tr>
<td>nominal inch</td>
<td>red cedar</td>
<td>whitewood core &amp; back</td>
</tr>
<tr>
<td>2</td>
<td>2.67</td>
<td>2.53</td>
</tr>
<tr>
<td>3</td>
<td>4.00</td>
<td>3.70</td>
</tr>
<tr>
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<td>5.02</td>
<td>4.58</td>
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<tr>
<td>5</td>
<td>6.16</td>
<td>5.59</td>
</tr>
</tbody>
</table>

R = Total thermal resistance of the assembly without roofing or air film resistance.

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Insulation / Specifications