Accoya® Radiata Pine
Lumber Grading Specifications

Grade Names & Definitions for Accoya® Radiata Pine
Version 8.2
Accoya® Radiata Pine Lumber Grades

Rough Accoya® Wood
Minimum grade definition

Accoya® Radiata Pine Lumber Grades

A1

4 sides primarily clear with total allowance (combination of all sides) of the following:

Less than 50 mm thickness:
> Up to 3 of the following defects or equivalent:
  • Knot (pin): 8 mm or less
  • Bark or resin pocket: 8 mm wide, 50 mm long or equivalent.

50 mm thickness and greater:
> Up to 6 of the following defects or equivalent:
  • Knot (intergrown, partially intergrown and tight encased): 15 mm
  • Bark or resin pocket: 10 mm wide, 100 mm long or equivalent.

Resin streaks
Three up to 8 mm wide, 100 mm long or equivalent, slightly more for a short distance.

Surface checks
• Three up to 1 mm wide, 250 mm long or equivalent, slightly more for a short distance.
• For boards 200-300 mm wide the following additional allowance applies: Up to 1 surface check per 50 mm width, no wider than 1 mm, 250 mm long or equivalent, slightly more for a short distance.

Splits
Short split, up to width of board and not to exceed 200 mm.

Needle fleck/birds eye
Medium birds eye or fleck.

Warp
As given in tables 1,2,3,4.

Wane
Up to 8 mm in width and depth, ¼ length of board or equivalent, slightly more for a short distance.
Surfaced Front Side

Surfaced Backside
A2 Minimum grade definition

3 sides primarily clear with allowance of the following:

**Better face and edge combined total:**
Less than 50 mm thickness:
› Up to 4 of the following defects or equivalent:
   • Knot (intergrown, partially intergrown and tight encased): 15 mm or equivalent smaller.
   • Bark or resin pocket: 8 mm wide, 50 mm long or equivalent.

50 mm thickness and greater:
› Up to 6 of the following defects or equivalent:
   • Knot (intergrown, partially intergrown and tight encased): 15 mm or equivalent.
   • Bark or resin pocket: 10 mm wide, 100 mm long or equivalent.

**Resin streaks**
One, 1/10 width, 1/6 length or equivalent, slightly more for a short distance.

**Surface checks**
• Three up to 1 mm wide, 250 mm long or equivalent, slightly more for a short distance.
• For boards 200-300 mm wide the following additional allowance applies: Up to 1 surface check per 50 mm width, no wider than 1 mm, 250 mm long or equivalent, slightly more for a short distance.

**Splits**
Short split, up to width of board and no more than 200 mm.

**Needle fleck/birds eye**
Medium birds eye or fleck.

**Warp**
As given in tables 1,2,3,4.

**Wane**
Up to 8 mm in width and depth, ¼ length of board or equivalent, slightly more for a short distance.

**Reverse face and edge combined total:**
Less than 50 mm thickness:
› Up to 6 of the following defects or equivalent:
   • Knot (intergrown, partially intergrown and tight encased): 20 mm or equivalent smaller.
   • Bark or resin pocket: 10 mm wide, 50 mm long or equivalent.

50 mm thickness and greater:
› Up to 6 of the following defects or equivalent:
   • Knot (intergrown, partially intergrown and tight encased): 20 mm. Prune scars considered as knots.
   • Bark or resin pocket: 10 mm wide, 100 mm long or equivalent.

**Collapse**
Insufficient to affect dry-dressed dimensions.

**Resin streaks**
One, 1/5 width, 1/3 length or equivalent, slightly more for a short distance.

**Surface checks**
• Three up to 1 mm wide, 250 mm long or equivalent, slightly more for a short distance.
• For boards 200-300 mm wide the following additional allowance applies: Up to 1 surface check per 50 mm width, no wider than 1 mm, 250 mm long or equivalent, slightly more for a short distance.

**Splits**
Short split, up to the width of board and no more than 200 mm.

**Needle fleck/birds eye**
Medium birds eye or fleck.

**Wane**
Up to 8 mm in width and depth, ¼ length of board or equivalent, slightly more for a short distance.
Accoya® Radiata Pine Lumber Grades

A3 Minimum grade definition

1 side primarily clear with allowance of the following:

**Better face and edge combined total:**

Less than 50 mm thickness:
> Up to 6 of the following defects or equivalent:
  - Knot (intergrown, partially intergrown and tight encased): 20 mm or equivalent smaller.
  - Bark or resin pocket: 8 mm wide, 50 mm long or equivalent.

50 mm thickness and greater:
> Up to 6 of the following defects or equivalent:
  - Knot (intergrown, partially intergrown and tight encased): 20 mm. Prune scars considered as knots.
  - Bark or resin pocket: 10 mm wide, 100 mm long or equivalent.

**Collapse**
Insufficient to affect dry-dressed dimensions.

**Resin streaks**
One, 1/5 width, 1/3 length or equivalent, slightly more for a short distance.

**Surface checks**
- Three up to 1 mm wide, 250 mm long or equivalent, slightly more for a short distance.
- For boards 200-300 mm wide the following additional allowance applies: Up to 1 surface check per 50 mm width, no wider than 1 mm, 300 mm long or equivalent, slightly more for a short distance.

**Splits**
Short split, up to the width of board and no more than 200 mm.

**Needle fleck/birds eye**
Medium birds eye or fleck.

**Wane**
Up to 8 mm in width and depth, 1/4 length of board or equivalent, slightly more for a short distance.

**Reverse face and edge combined total:**

**Bark or resin pockets**
20 mm wide, 100 mm long or equivalent, slightly more for a short distance.

**Surface checks**
Reverse face and edge, knot checks and surface checks unrestricted.

**Splits**
Up to twice the width of board or equivalent smaller.

**Collapse**
Insufficient to affect dry-dressed dimensions more than 1 mm per side.

**Holes, loose knots, and decayed knots**
20 mm (40 mm in pieces exceeding 150 mm wide or 50 mm in thickness, 4 per length).

**Knots (intergrown, partially intergrown, tight encased)**
100 mm (singly), sum of sizes in any combination half of the width of the piece.

**Sound spike knots and sound double spike knots, intergrown or partially intergrown**
50 mm wide, projected length two-thirds of width of piece.

**Pith**
Up to 12 mm wide, 50% of length or equivalent, slightly more for a short distance.

**Resin streaks**
1/5 width, 1/3 length or equivalent, slightly more for a short distance.

**Shakes other than through shakes**
1/5 of length.

**Needle fleck/birds eye**
Unrestricted.

**Warp**
As given in tables 1,2,3,4.

**Wane**
Up to 18 mm width and depth, 50% of length or equivalent, slightly more for a short distance.
Both faces containing knots, bark or resin pockets with total allowance of the following:

**Bark or resin pockets**
20 mm wide, 100 mm long or equivalent, slightly more for a short distance.

**Checks**
Knot checks and surface checks unrestricted.

**Splits**
Up to twice the width of board or equivalent smaller.

**Collapse**
Insufficient to affect dry-dressed dimensions more than 1 mm per side.

**Holes, loose knots, and decayed knots**
20 mm (40 mm in pieces exceeding 150 mm wide or 50 mm in thickness, 4 per length).

**Knots (intergrown, partially intergrown, tight encased)**
100 mm (singly), sum of sizes in any combination half of the width of the piece.

**Sound spike knots and sound double spike knots, intergrown or partially intergrown**
50 mm wide, projected length two-thirds of width of piece.

**Pith**
up to 12 mm wide, 50% of length or equivalent, slightly more for a short distance.

**Resin streaks**
1/5 width, 1/3 length or equivalent, slightly more for a short distance.

**Shakes other than through shakes**
1/5 of length.

**Needle fleck/birds eye**
unrestricted.

**Warp**
As given in tables 1,2,3,4.

**Wane**
Up to 18 mm width and depth, 50% of length or equivalent, slightly more for a short distance.
General Specifications

**Thickness**
No more than 1 mm less than the specified size.

**Width**
No more than 1 mm less than the specified size.

**Length**
No more than 20 mm shorter than nominal length.

**Moisture Content**
Less than 10%.

**Additional Grade Specifications**
Internal Defects Not Visually Present on Surface: Accoya® wood is produced from a natural resource. All wood has natural variation from tree to tree and board to board. This natural variation results in a product that can have defects naturally present within the wood. Furthermore, the process of cutting trees into lumber and drying of the lumber can induce defects such as shakes, cracks and checks. Accoya® wood is produced from lumber visually inspected on the surface to meet the grade specifications, however upon further processing internal defects can be discovered.

**Manufacturing Imperfections**
Lumber may have slight manufacturing related imperfections.

**Overall Deviation from Specifications**
Up to 5% of boards off grade shall be deemed acceptable.
Surfacing Considerations

Discoloration
The acetylation process can result in discoloration generally up to 5 mm in depth with sticker marks up to 6 mm in depth. Natural wood variances can also result in discoloration. Removal of surface discoloration is not typically required when using opaque coatings.
### Table 1: Allowed Bow

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Table 2: Allowed Crook

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Table 3: Allowed Twist per 100 mm Width

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<th>38</th>
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Table 4: Allowed Cupping

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