

Lumber Grading Specifications

Grade names & definitions for Accoya®

Rough Accoya Wood



General specifications

PROPERTY	SPECIFICATION
Thickness	Max. 1mm less than specified size. Accoya is typically 1mm over thickness
Width	Max. 1mm less than specified size. Accoya is typically over width which increases with the board width. 100 mm in range of 2 mm over width and 200 mm in range of 5 to 8 mm over width.
Length	Max. 20 mm shorter than specified length
Moisture content	Less than 5%

Grading is applicable to the surfaces of the boards produced and delivered only. These rules do not apply to boards which have been further processed or used in application.

Surface finish and dimensions

Accoya® boards can be rough sawn or dressed to a smaller dimension. Dressed dimensions have been selected with the intent of enabling production of the same final products. Boards are sold and classified according to their original sawn (nominal) dimension. 25 and 32mm boards have one hit and miss back face and one smoother appearance face. The hit and miss back side will generally have more process discolouration. This orientation should be maintained in finished product manufacture.

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. Accoya is not graded for presence of internal defects.

Manufacturing imperfections

Lumber may have slight manufacturing related imperfections. Manufacture imperfections are graded within the same parameters as natural defects. For example, edge damage is graded against the wane rule.

Overall Deviations from specifications

Up to 5% of boards off grade shall be deemed acceptable.

Surfacing considerations

Discolouration

The acetylation process can result in discolouration and sticker marks **up to 6mm** in depth, and on occasion due to wood's natural variation slightly deeper. This is typically over come in an application such as decking by milling 1mm off the back side and a higher proportion from the appearance side. Removal of discolouration is not typically required when opaque coatings are used.

For more information please refer to the Accoya Wood Information guide on Accoya.com.








Lightly surfaced (machined)



Heavily surfaced (machined)

Typical wood characteristics that can be found on rough Accoya

WOOD CHARACTERISTICS ON ACCOYA		
<p>Knots</p>		
<p>Bark / Resin pockets</p>		
<p>Surface Checks: on one face only, not throughout the cross section</p>		
<p>Splits: going throughout the cross section</p>		
<p>Wane: Perimeter of tree on outer edge or edge of board. Typically with a bark colour</p>		

A1 Maximum Allowable Defects

4 sides primarily clear with total allowance of the following:

WOOD CHARACTERISTICS		ALLOWABLE LIMITS
Bark/Resin Pockets	Rule on boards less than 50 mm thick	Rule on boards 50 mm and thicker
	Up to 3, max. 12 mm wide, 50 mm long	Up to 6, max. 15 mm wide, 100 mm long
End splits and other defects at end of board	Allowable within 200 mm of end with no limit on size; either on one end or a sum of 200 mm on both ends	
Knots	Rule on boards less than 50 mm thick	Rule on boards 50 mm and thicker
	Up to 3, max. 8 mm diameter	Up to 6, max 15 mm diameter
Splits	Short splits, up to board width, max. 200 mm	
Surface Checks	Number of allowable checks of 1 mm width and 250 mm length: <ul style="list-style-type: none"> • Boards 150 mm wide and narrower – 3 • 200 mm wide boards – 4 • 250 mm wide boards - 5 	
Surface Finish	Supplied sawn	
Wane	No wane depth limits when less than 250 mm long. 10 mm wane width allowable limit when wane is longer than 250 mm. Allowable on one side of the board	
Warp	Refer to tables 1, 2, 3, 4	

A2 Maximum allowable defects for A2 boards less than 50 mm thickness

Accoya A2 Grade has an appearance (better) face and a back face

Rules for A2 boards less than 50 mm thick		
WOOD CHARACTERISTICS	ALLOWABLE LIMITS	
Bark/Resin Pockets	Better face and edge combined total	Reverse face and edge combined total
	Up to 4, max. 15 mm wide, 100 mm long	Up to 6, max. 25 mm wide, 200 mm long
End splits and other defects at end of board	Allowable within 200 mm of end with no limit on size; either on one end or a sum of 200 mm on both ends	
Knots	Better face and edge combined total	Reverse face and edge combined total
	Up to 4, max. 25 mm diameter	Up to 6, max. 40 mm diameter
Splits	Short splits, up to board width, max. 200 mm	
Surface Checks	Number of allowable checks of 1 mm width and 250 mm length: <ul style="list-style-type: none"> Boards 150 mm wide and narrower – 3 200 mm wide boards – 4 250 mm wide boards - 5 	
Surface Finish	Supplied sawn	
Wane	No wane depth limits when less than 250 mm long. 10 mm wane depth and width allowable limit when wane is longer than 250 mm. Allowable on one side of the board	
Warp	Refer to tables 1, 2, 3, 4	

A2 Maximum allowable defects for A2 boards of 50 mm and thicker

Accoya A2 Grade has an appearance (better) face and a back face

Rules for A2 boards 50 mm and thicker		
WOOD CHARACTERISTICS	ALLOWABLE LIMITS	
Bark/Resin Pockets	Best surface	Back surface & sides
	Up to 6, max. 15 mm wide, 100 mm long	Up to 6 max. 35 mm wide and 200 mm long OR single area max. 500 mm long with no limit
End splits and other defects at end of board	Allowable within 200 mm of end with no limit on size; either on one end or a sum of 200 mm on both ends	
Knots	Best surface	Back surface & sides
	Up to 6, max. 15 mm diameter	Up to 6 max. 40 mm diameter OR single area max. 500 mm long with no limit
Splits	Short splits, up to board width, max. 200 mm	
Surface Checks	Number of allowable checks of 1 mm width and 250 mm length: <ul style="list-style-type: none"> Boards 150 mm wide and narrower – 3 200 mm wide boards – 4 250 mm wide boards - 5 	
Surface Finish	Supplied sawn	
Wane	No wane depth limits when less than 250 mm long. 12 mm wane depth and width allowable limit when wane is longer than 250 mm. Allowable on one side of the board	
Warp	Refer to tables 1, 2, 3, 4	

B Grade

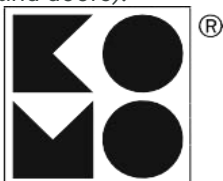
WOOD CHARACTERISTICS	ALLOWABLE LIMITS
Bark/Resin Pockets	No limit on allowable resin pockets
End splits and other defects at end of board	Allowable within 300 mm of end with no limit on size; either on one end or a sum of 300 mm on both ends
Knots	No limit on allowable knots
Splits	Up to 2 per board width, max. 300 mm
Surface Checks	No limit on allowable surface checks
Surface Finish	Supplied sawn
Wane	No wane depth limits when less than 250 mm long. 25 mm wane depth and width OR half board thickness allowable limit when wane is longer than 250 mm Transport damage is permitted within the same wane limits
Warp	Up to 50 % greater than allowable in tables 1, 2, 3, 4

FJ Minimum Grade Definition

WOOD CHARACTERISTICS	ALLOWABLE LIMITS
Calibration	Calibrated on at least 2 sides (one square angle)
Collapse	Not permitted
Cracks/Checks	Not permitted
Discoloration	Permitted
Jointed block length	Min. 250 mm
Knots	Sound knots, max. 5mm diameter near finger joint
	Max. 2 knots with max. diameter of 15mm on one block, with min. distance of 3 times diameter to finger joint
	Max. knot diameter: 15mm for 150 mm board width; max. 20mm for 200mm board width
Knots with cracks	Not permitted
Open fingers	Not permitted
Resin pockets (surface)	Not permitted
Rough surface	Not permitted
Unsound knots	Not permitted
Wane	Not permitted

Tolerances in thickness +/- 1mm, in width - 1mm / +3mm

Note: Finger jointed Accoya is produced to the Dutch KOMO standard and certified for use as coated joinery (windows and doors).



Cert. no. 33058/07
 BRL 0605 Modified Timber
 Accoya® is suitable for in use
 class 1, 2, 3 and 4 (EN 335-1)

Table 1: Allowed Bow

Length [m]	Thickness [mm]					
	22&25	32	38	50	63	75
1.8	15	15	10	10	10	5
2.1	25	20	15	10	10	10
2.4	30	25	20	15	15	10
2.7	40	30	25	20	20	15
3.0	45	40	30	25	25	15
3.3	55	45	35	30	30	20
3.6	65	55	40	35	35	25
3.9	80	65	50	40	40	25
4.2	90	75	55	45	45	30
4.5	105	90	65	55	55	35
4.8	120	100	75	60	60	40

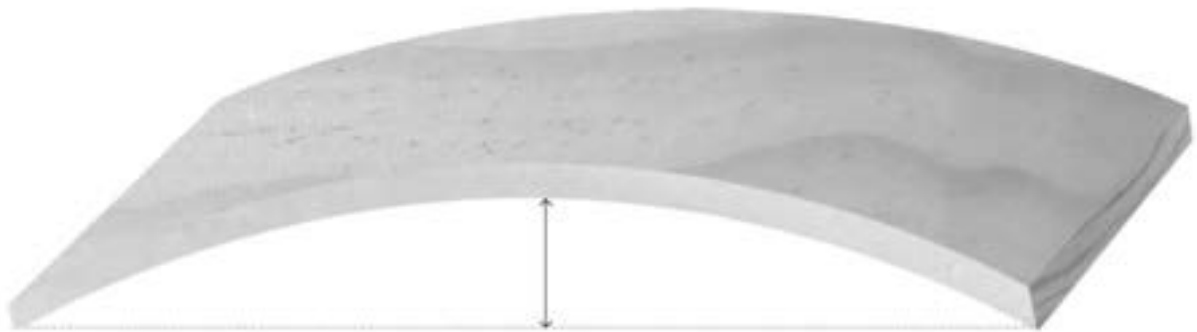


Table 2: Allowed Crook

Length [m]	Width [mm]					
	75	100	125	150	200	>200
1.8	5	4	3	3	2	2
2.1	10	5	5	4	3	2
2.4	10	10	5	5	4	3
2.7	15	10	10	5	5	4
3.0	15	10	10	10	5	5
3.3	20	15	10	10	5	5
3.6	25	15	15	10	10	5
3.9	25	20	15	15	10	10
4.2	30	25	20	15	10	10
4.5	35	25	20	20	15	10
4.8	40	30	25	20	15	10

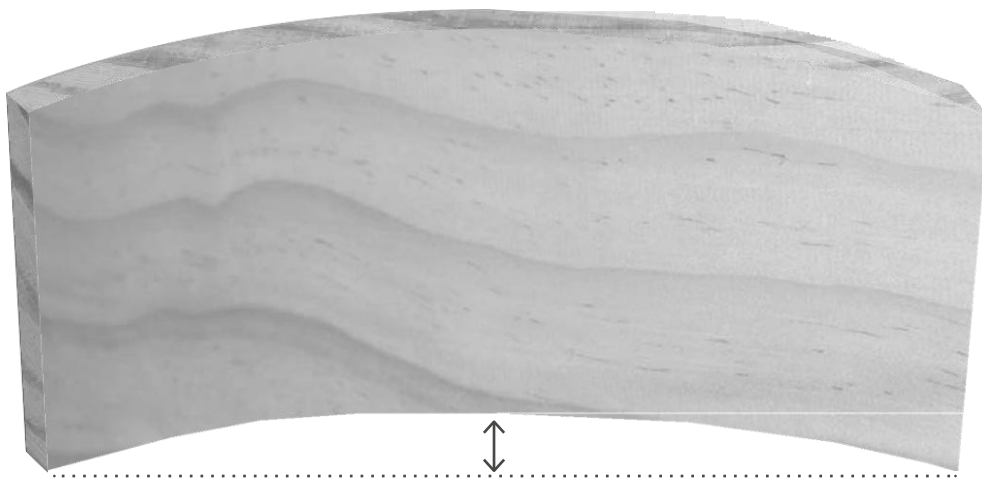


Table 3: Allowed Twist per 100 mm width

Length [m]	Thickness [mm]					
	22 & 25	32	38	50	63	75
1.8	10	10	5	5	5	3
2.4	10	10	10	5	5	4
3.0	15	15	10	10	10	5
3.6	20	15	10	10	10	5
4.2	20	20	15	10	10	5
4.8	25	20	15	10	10	10

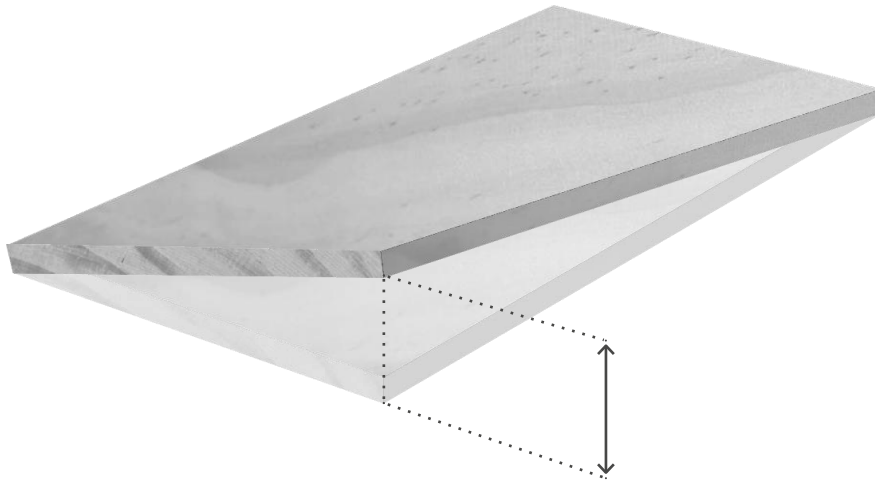


Table 4: Allowed Cupping

Width [mm]	Allowed Cupping [mm]
75	1
100	1
125	2
150	2
20	3
225	4
250	5
300	6

