

Quality characteristics ALFA technic and ALFA joiner - coniferous plywood

	ALFA technic - water - resistant plywood			ALFA joiner - joiner's plywood			
	quality class according producer	quality BB	quality C+	quality C	quality B	quality BB	quality C
	quality class according EN 635-3	quality II. (BB)	quality III. (CP)	quality III. (C)	quality I. (B)	quality II. (BB)	quality III. (C)
wood defects	sound knots	allowed up to Ø 50 mm	allowed up to Ø 60 mm	allowed up to Ø 60 mm	allowed up to Ø 5 mm	allowed up to Ø 5 mm	allowed up to Ø 5 mm
	unsound or partially fused knots	allowed up to Ø 20 mm puttied and up Ø 5 mm not puttied	allowed up to Ø 40 mm puttied	allowed up to Ø 40 mm	allowed up to Ø 3 mm	allowed up to Ø 3 mm	allowed up to Ø 3 mm
	knot holes		allowed up to Ø 40 mm puttied	allowed up to Ø 40 mm	not allowed	not allowed	allowed up to Ø 25 mm, max. 6 pcs/m²
	knot holes machine repaired	allowed	allowed	allowed	allowed max. 3 patches/m²	allowed max. 6 patches/m²	allowed
	open splits	allowed up to width 10 mm max. length 80 cm puttied	allowed up to width 15 mm max. length 125 cm puttied	allowed up to width 15 mm max. length 125 cm	not allowed	allowed up to width 3 mm max. 3 pcs per sheet width puttied	allowed up to width 5 mm max. 3 pcs per sheet width
	bark or withered wood	allowed up to width 6 mm puttied	allowed up to width 6 mm puttied	allowed up to width 6 mm	not allowed	allowed up to width 3 mm and length 20 mm max. 2 pcs/m² puttied	allowed up to width 6 mm and length 20 mm max. 2 pcs/m²
	resin galls	allowed up to width 6 mm puttied	allowed up to width 40 mm puttied	allowed up to width 40 mm	not allowed	not allowed	allowed up to width 6 mm
	soft rot	not allowed	not allowed	not allowed	not allowed	not allowed	not allowed
	hard rot	not allowed	allowed	allowed	not allowed	not allowed	allowed
	insect damage	allowed up to Ø 3 mm, 10 pcs/m² puttied	allowed up to Ø 5 mm, puttied	allowed up to Ø 5 mm	not allowed	not allowed	allowed up to Ø 5 mm, max. 2 pcs/m²
natural stain	allowed up to 1/3 of sheet, no contrast	allowed up to 1/3 of sheet	allowed	allowed no contrast	allowed up to 1/3 of sheet	allowed	
blue stain	allowed slightly	allowed up to 1/3 of sheet	allowed	not allowed	not allowed	allowed	
manufacturing defects	open joint	allowed up to 10 mm max. 1 pcs of sheet width, puttied	allowed up to 10 mm max. 1 pcs of sheet width, puttied	allowed up to 15 mm max. 1 pcs of sheet width	not allowed	allowed up to 3 mm max. 1 pcs of sheet width, puttied	allowed up to 5 mm max. 1 pcs of sheet width
	overlap *)	not allowed	allowed 1 pcs/m², puttied	allowed max. 2 pcs/m²	not allowed	allowed max. 1 pcs/m² puttied	allowed max. 2 pcs/m²
	skim - dry mark (pressed in spots)	not allowed	allowed, max. width 40 mm, max. length 70 cm, 1 pcs of sheet width, puttied	allowed, max. width 40 mm, max. length 70 cm, 1 pcs of sheet width	not allowed	allowed max. 2 cm², up to max. depth 0,5 mm, puttied	allowed max. 2 cm², up to max. depth 0,5 mm
	sanding through	not allowed	allowed slightly	allowed slightly	not allowed	not allowed	allowed slightly
	rough spots	not allowed	allowed max. 10% of sheet	allowed	not allowed	allowed max. 10% of sheet	allowed
	glue penetration **)	not allowed	allowed max. 10% of sheet	allowed	not allowed	allowed max. 2% of sheet	allowed
	manual repair	not allowed	allowed	allowed	not allowed	allowed	allowed

*) Overlaps of inner veneers are allowed without restrictions.

**) Board must be sanded. Unsanded board may have traces of adhesive on the surface.

Functional characteristics ALFA technic - coniferous plywood

	characteristics according EN 13986: 2004 + A1: 2015									standard	
	thickness	4-6 mm	9 mm	12 mm	15 mm	18 mm	21 mm	24 mm	27+ mm		
bending strenght	N/mm²	28	27	33	28	30	25	27	26	EN 310 EN 326	
elastic modulus	N/mm²	1300	3500	4500	4200	5100	4500	4700	5100	EN 310	
bonding quality	N/mm²	0,6 - 1,0 bonding class 3 according EN 636-3									EN 314-1 EN 314-2
fire reaction	class D - s2, d0	applies to thicknesses from 9 mm and density higher than 400kg/m2									EN 13986+A1 tab. 8
release of formaldehyde	mg/m².h	emission class E1 0,48									EN 636
formaldehyde content	mg HCHO/m³ pppm	chamber value 0,020 ± 0,050									EN 717-1
water vapour permeability	µ	wet 70, dry 200									EN 12524
thermal conductivity	λ	0,13 W/mK									EN 12664

Quality characteristics ALFA floor - rotary cut spruce veneer

	ALFA floor - parquet veneer	
	longitudinal cracks	allowed up to 10 mm width and 1/4 length veneer, max. 1 pcs from every side
closed cracks	allowed up to 1/3 length veneer, max. 1 pcs from every side	
rot	not allowed	
blue stain	allowed up to 5 % veneer	
brown sap stain	allowed up to 150 mm²	
mould	not allowed	
resin galls	allowed up to 150 mm²	
mechanical damage	not allowed	
insect damage	not allowed	
sound knots	allowed	
dead knots, unsound and partially fused knots	allowed up to Ø 20 mm	
knot holes	allowed up to Ø 30 mm	
wave	allowed up to height 50 mm	
humidity	5 - 7 %	



Thickness tolerances (ČSN EN 315)

nominal thickness (mm)	unsanded board				sanded board			
	number of plies (pcs)	min. (mm)	max. (mm)	in 1 board (mm)	number of plies (pcs)	min. (mm)	max. (mm)	in 1 board (mm)
4	3	3,5	4,9	1,0	3	3,5	4,3	0,6
5	3	4,5	6,0	1,0	3	4,5	5,4	0,6
6	3	5,4	7,0	1,0	3	5,4	6,4	0,6
8	5	7,4	9,0	1,0	5	7,4	8,4	0,6
9	5	8,3	10,1	1,0	5	8,3	9,5	0,6
10	5	9,3	11,1	1,0	5	9,3	10,5	0,6
12	5	11,2	13,2	1,0	5	11,2	12,6	0,6
15	5	14,2	16,3	1,5	7	14,2	15,7	0,6
18	7	17,1	19,3	1,5	7	17,1	18,7	0,6
21	7	20,0	22,4	1,5	9	20,0	21,8	0,6
24	9	22,9	25,5	1,5	9	22,9	24,9	0,6
27	11	25,8	28,6	1,5	11	25,3	28,6	0,8
30	11	28,7	31,7	1,5	11	28,1	31,7	0,8
vener 2 mm		1,8 mm	2,2 mm					

Packaging

plywood thickness (mm)	pack height 900 mm (pcs/pack)
4	225
5	180
6	150
8	113
9	100
10	90
12	75
15	60
18	50
21	43
24	38
27	33
30	30
vener thickness 2 mm	300

Format tolerances (ČSN EN 315)

plywood length x width (mm)	maximal difference (mm)
2500 x 1250	+/- 3,5
2440 x 1220	+/- 3,5
2500 x 1500	+/- 3,5
cut to size veneer	+ 10 / - 0

Transport loading capacity 24 t

	number of packs	quantity (m ³)
plywood format 2500 x 1250 mm	17	48
plywood format 2440 x 1220 mm	18	48
plywood format 2500 x 1500 mm	12,5	42
vener format	36	40 (20 000 m ³)

