

Datasheet: Birch Plywood

Birch Plywood sanded on both sides.

Composed of 1.4mm thick veneers, cross bonded.

Face veneers can be either long-grain or cross-grain. The first dimension given denotes grain direction.

Grades: E (or premium) - highest grade

B - for high quality painting, staining and lacquering

S - for good quality painting, staining and lacquering

BB - standard grade (plugged) for interior paint finish, veneering and coating with thicker overlays and films

WG - for use where surface appearance is not important

Formaldehyde emission

In accordance with the standard EN 13986 the formaldehyde emission meets the class E1 requirements (test method EN717 part 2). Plywood glued with phenol-formaldehyde resins meets the CARB Phase 2 and Japaese 4-Star regulation requirements.

Gluing Classes

Glued with a phenol resin adhesive which is weather and boil-proof and meets the requirements of the following standards: EN314-3

BS1203 / H 4 (previously WBP)

DIN 68705 part 3 / type BFU 100

Other glue option: moisture resistant urea-formaldehyde adhesive resin which is modified with melamine (meets the requirements of EN 313-1 and BS 1203/H2)

Thickness	Plies	Thickness			Weight in Kg		
		Average	Lower Limit	Upper Limit	Kg/M3	1220 x 2440	1525 x 3050
4mm	3	3.8	3.5	4.1	660	7.9	12.3
6.5mm	5	6.4	6.1	6.9	670	13.0	20.3
9mm	7	9.2	8.8	9.5	710	19.0	29.7
12mm	9	12	11.5	12.5	695	24.8	38.8
15mm	11	14.9	14.3	15.3	690	30.8	48.1
18mm	13	17.7	17.1	18.1	685	36.7	57.3
21mm	15	20.5	20	20.9	680	42.5	66.4
24mm	17	23.4	22.9	23.7	680	48.6	75.9
27mm	19	26.5	25.8	26.8	673	54.1	84.5
30mm	21	29.4	28.7	29.9	672	60.0	93.8
35mm	25	35	33.6	35.4	687	71.6	111.8
40mm	29	38.7	38.4	41.2	650	77.4	120.9
45mm	32	43.6	43.3	46.6	660	88.4	138.1
50mm	35	49.6	48.1	51.7	695	103.4	161.6

Parameter Length, width (mm)	Tolerance
< 1000	+/- 1mm
1000 - 2000	+/- 2mm
> 2000	+/- 3mm
Right Angle	+/- 0.1%
Edge straightness	+/- 0.1%

Grading Rules for Birch Plywood

Categories of defects	B	S	BB	WG	C
Pin knots (Sound intergrown knots $\leq \varnothing 3$ mm)	Permitted	Permitted	Permitted	Permitted	Permitted
Sound intergrown knots	Permitted $\leq \varnothing 6$ mm, $\sum \leq 12$ mm/m ²	Permitted $\leq \varnothing 20$ mm, $\sum \leq 50$ mm/m ²	Permitted $\leq \varnothing 25$ mm, $\sum \leq 60$ mm/m ²	Permitted $\leq \varnothing 65$ mm, $\sum \leq 600$ mm/m ²	Permitted
Unsound adhering knots	Not permitted	Not permitted	Not permitted	Permitted $\leq \varnothing 20$ mm, $\sum \leq 200$ mm/m ²	Permitted
Other knots and holes	Not permitted	Not permitted	Permitted $\leq \varnothing 6$ mm, $\sum \leq 25$ mm/m ² , repaired	Permitted $\leq \varnothing 15$ mm, $\sum \leq 100$ mm/m ²	Permitted $\leq \varnothing 40$ mm, ≤ 10 /m ²
Irregularities in the structure of the wood	Permitted, but slight	Permitted	Permitted	Permitted	Permitted
Curly grain	Not permitted	Not permitted	Permitted	Permitted	Permitted
Open splits and checks	Not permitted	Permitted for an individual width up to 2 mm and of an individual length ≤ 200 mm and ≤ 1 per metre of panel width, repaired	Permitted for an individual width up to 2 mm and of an individual length ≤ 200 mm and ≤ 1 per metre of panel width, repaired	Permitted for an individual width up to 4 mm and ≤ 2 per metre of panel width	Permitted for an individual width up to 10 mm and of an individual length ≤ 400 mm and ≤ 5 per metre of panel width
Closed splits and checks	Not permitted	Permitted for an individual length up to 200 mm and in number up to 2 per metre of panel width	Permitted for an individual length up to 200 mm and in number up to 2 per metre of panel width	Permitted	Permitted
Discolouration	Permitted, but slight (not at the edges of panel) $\leq 15\%$ of panel surface	Permitted	Permitted	Permitted	Permitted
Discolouration and coloured streaks	Not permitted	Permitted up to an extent of 15% of the panel surface, some streaks of colour and minerals	Permitted up to an extent of 30% of the panel surface	Permitted	Permitted
Brown, but not rot	Not permitted	Not permitted	Permitted up to an extent of 30% of the panel surface	Permitted	Permitted
Brown, rot at the initial period	Not permitted	Not permitted	Not permitted	Not permitted	Permitted
Inserts	Permitted ≤ 3 /m ²	Permitted ≤ 3 /m ²	Permitted up to an extent of 3% of the panel surface	Permitted	n/a
Open joints	Not permitted	Not permitted	Permitted for an individual width up to 2 mm, and of an individual length ≤ 200 mm and ≤ 1 per metre of panel width, repaired	Permitted an individual width up to 3 mm	Permitted an individual width up to 7 mm
Imprints and bumps	Not permitted	Not permitted	Permitted, but slight, 2 cm ² per panel	Permitted, but slight	Permitted
Roughness	Not permitted	Not permitted	Permitted, but slight (up to 10 cm ² /m ² , repaired) - three defects per panel	Permitted	Permitted
Sanding through	Not permitted	Not permitted	Permitted ≤ 10 cm ² /m ²	Permitted ≤ 20 cm ² /m ²	Permitted
Glue penetration	Not permitted	Occasionally	Permitted up to an extent of 5% of the panel surface	Permitted	Permitted
Unsanded areas (for sanded plywood)	Not permitted	Not permitted	Not permitted	Permitted up to an extent of 5% of the panel surface	n/a
Defects at the edges due to sanding or trimming	Permitted up to 5 mm from the edge (if the glue is not visible)	Permitted up to 5 mm from the edge, not in all length, repaired	Permitted up to 5 mm from the edge, not in all length, repaired	Permitted up to 5 mm from the edge	Permitted up to 5 mm from the edge
Composed face veneers		Permitted, if composed properly, conformable colour	Permitted	Permitted	Permitted
Total number of permitted defects	≤ 3	≤ 6	≤ 9	Unlimited	Unlimited