

Birch Ply

Birch XL



Metsä Wood Birch XL is an extra large size birch plywood panel jointed from standard size panels. Birch XL panels enable larger one piece components. The largest available panel size is 6000 mm x 2200 mm.

APPLICATIONS

Metsä Wood Birch XL is suitable for applications that require large size panels and high technical properties. Larger panels facilitate and accelerate installation and provide structures with a high degree of rigidity.

- **Transport industry:** Trailer, truck, lorry, van and refrigerated trailer floors, container floors, walls and ceilings, passenger car floors, railway wagon floors and ship/boat decking
- **Building applications:** floor and roof structures, concrete element industry, etc.
- **Other applications:** packing applications, furniture, toys etc.

MAJOR ADVANTAGES

- Large sizes
- Strong and rigid
- Withstands impacts and other forms of bruising
- Available with durable and weather resistant overlays
- Dimensionally stable
- Easy to machine and fasten using conventional woodworking tools and fasteners
- Environmentally friendly
- Weather and boil proof bonding

BASE PLYWOOD

The base plywood of Metsä Wood Birch XL is Metsä Wood Birch, which is made of cross-bonded 1.4 mm thick birch veneers and bonded with weather and boil-resistant phenol formaldehyde adhesive.

Birch XL panels are scarf-jointed from standard size birch plywood panels using weather resistant melamine or resorcinol adhesive. The scarf-joints appear as thin, visible lines on both sides of the panel, running perpendicularly to the panel length.

SURFACE PROPERTIES

Metsä Wood Birch XL panels have the same surface properties as the original panels, possibly with slight differences in colouration and gloss between the jointed panels. The surface quality of the wood faced Birch XL panels is BB/BB. Birch XL panels are sanded on both sides.

PANEL SIZES

Metsä Wood Birch XL length 4100 to 6000 and/or width 2000 to 2200 mm. Smaller panel sizes without scarf joint are available in standard and L sizes.

The first measurement indicates the orientation of the surface veneer grain.

SIZE TOLERANCES

Measured in accordance with standard EN 324, the plywood size and squareness tolerances meet EN 315 requirements.

PANEL TOLERANCES

| LENGTH / WIDTH | TOLERANCE |
|-------------------|-------------------|
| < 1000 mm | ±1 mm |
| 1000-2000 mm | ±2 mm |
| > 2000 mm | ±3 mm |
| Squareness | ±0.1 % or ±1 mm/m |
| Edge straightness | ±0.1 % or ±1 mm/m |

THICKNESS, STRUCTURES AND THICKNESS TOLERANCES

THICKNESSES, STRUCTURES AND THICKNESS TOLERANCES OF THE PANELS*

| NOMINAL THICKNESS (mm) | NUMBER OF PLYS (pcs) | THICKNESS TOLERANCE | | WEIGHT kg/m ² |
|---------------------------|-------------------------|---------------------|-----------|-----------------------------|
| | | min. (mm) | max. (mm) | |
| 9 | 7 | 8.2 | 9.5 | 6.1 |
| 12 | 9 | 10.9 | 12.5 | 8.2 |
| 15 | 11 | 13.7 | 15.3 | 10.2 |
| 18 | 13 | 16.5 | 18.1 | 12.2 |
| 21 | 15 | 19.4 | 20.9 | 14.3 |
| 24 | 17 | 22.3 | 23.7 | 16.3 |
| 27 | 19 | 24.6 | 26.8 | 18.4 |
| 30 | 21 | 27.5 | 29.9 | 20.4 |

* Moisture content of the product affects its dimensions

* Average density of Metsä Wood birch plywood is 680 kg / m³ (at relative humidity of RH 65%)

* Special structures and thicknesses are available on request

* Customised tolerances are possible but must be agreed separately

BONDING CLASSES

Metsä Wood plywood panels are bonded with a weather and boil-resistant phenol formaldehyde adhesive (WBP, BFU, AW, exterior).

The gluing meets the requirements of the following international standards:

- EN 314-2 / Class 3 (exterior)
- DIN 68705-3 / BFU 100
- BS 6566 Part 8 / WBP

The scarf joint is glued with weather resistant melamine or resorcinol adhesive.

FORMALDEHYDE EMISSIONS

Determined according to EN 717-1, the formaldehyde emitted by Metsä Wood Birch XL falls far below the Class E1 requirement of ≤ 0,100 ppm and fulfils also the most stringent requirements in the world (≤ 0,030 ppm). The formaldehyde emission of Metsä Wood Birch XL is approximately 0,013 ppm.

PANEL STRENGTH PROPERTIES

Due to the scarf jointed core plywood, the strength values of Metsä Wood Birch XL in the longitudinal direction of the panel are ca. 65% of standard Metsä Wood Birch plywood values. In the cross direction of the panel the strength values are similar to standard Birch plywood. Stiffness values in both directions are similar to standard Birch plywood.

MECHANICAL PROPERTIES OF METSÄ WOOD BIRCH XL PANELS. MOISTURE CONTENT 12%. THE VALUES ARE EN 789 VALUES.

| THICKNESS (mm) | MEAN MODULUS OF ELASTICITY (N/mm ²) | | CHARACTERISTIC BENDING STRENGTH (N/mm ²) | |
|-------------------|--|------|---|------|
| | | ⊥ | | ⊥ |
| 9 | 11395 | 6105 | 29.6 | 32.1 |
| 12 | 10719 | 6781 | 27.9 | 33.2 |
| 15 | 10316 | 7184 | 26.8 | 33.8 |
| 18 | 10048 | 7452 | 26.1 | 34.1 |
| 21 | 9858 | 7642 | 25.6 | 34.3 |
| 24 | 9717 | 7783 | 25.3 | 34.4 |
| 27 | 9607 | 7893 | 25.0 | 34.5 |
| 30 | 9519 | 7981 | 24.8 | 34.6 |

MACHINING

Metsä Wood Birch XL plywood panels can be machined according to customer specification on special request.

PACKING

Metsä Wood Birch XL panels are packed in moisture resistant plastic wrapping.

PACKING QUANTITIES

| PANEL SIZE | mm | NUMBER OF PANELS PER PALLET BY THICKNESS | | | | | | | |
|-------------|----|--|----|----|----|----|----|----|----|
| | | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 |
| 3000 x 2200 | | 80 | 60 | 45 | 40 | 30 | 30 | 25 | 20 |
| 4000 x 2200 | | 60 | 45 | 35 | 30 | 25 | 20 | 20 | 15 |
| 5400 x 2200 | | 45 | 30 | 25 | 25 | 20 | 15 | 15 | 10 |
| 6000 x 2200 | | 35 | 25 | 20 | 20 | 15 | 15 | 15 | 10 |

FURTHER INFORMATION

- Metsä Wood Transport brochure
- Metsä Wood KingSize Product Data Sheet

METSÄ WOOD

P.O. Box 50, 02020 Metsä, Finland
Tel. +358 1046 05
www.metsawood.com/plywood

This leaflet is provided for information purposes only and no liability or responsibility of any kind is accepted by Metsä Wood or their representatives, although Metsä Wood has used reasonable efforts to verify the accuracy of any advice, recommendation or information. Metsä Wood reserves the right to make alterations to its products, product information and product range without prior notice.

