

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 6 000mm x 2 200mm.

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**
- **Weather- and boil-proof bonding**
- **Made of sustainable Nordic wood and PEFC (PEFC/02-31-381) certified**

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BASE PLYWOOD

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

Birch XL panels are scarf-jointed from standard size birch plywood panels using melamine urea formaldehyde or phenol resorcinol formaldehyde 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 |
|-------------------|--------------------|
| < 1 000 mm | ± 1 mm |
| 1 000 - 2 000 mm | ± 2 mm |
| >2 000 mm | ± 3 mm |
| Squareness | ± 0.1 % or ±1 mm/m |
| Edge straightness | ± 0.1 % or ±1 mm/m |

THICKNESSES, STRUCTURES AND THICKNESS TOLERANCES OF THE PANELS*

| NOMINAL THICKNESS | NUMBER OF PLYS | THICKNESS TOLERANCE | | WEIGHT |
|-------------------|----------------|---------------------|-----------|-------------------|
| | | min. (mm) | max. (mm) | |
| (mm) | (ant.) | | | kg/m ² |
| 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 |

* The moisture content of the product affects its dimensions

* Average density of Metsä Wood Spruce plywood is 680 kg/m³ (at a relative humidity of 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. The gluing meets the requirements of the standard EN 314-2 / Class 3 (exterior).

The scarf joint is glued with melamine urea formaldehyde or phenol resorcinol formaldehyde adhesive.

FORMALDEHYDE EMISSIONS

Determined according to EN 717-1, the formaldehyde emissions of Metsä Wood Birch XL are well below the Class E1 requirement of ≤ 0.100 ppm. The product complies with Commission Regulation (EU) 2023/1464, and the formaldehyde emission is below the specified limit of 0.062 mg/m³.

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APPROVALS AND DESIGN 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.

Birch plywood production is managed according to the principles of standard ISO 9001. The quality and the constancy of performance of the product is controlled by regular third party inspections and audits.

MECHANICAL PROPERTIES*

| 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 |

* Moisture content 12%

** Properties determined according to EN 789 standard

MACHINING

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

PACKAGING

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 |
| 3000 x 2200 | 80 | 60 | 45 | 40 | 30 | 30 | 25 |
| 4000 x 2200 | 60 | 45 | 35 | 30 | 25 | 20 | 20 |
| 5400 x 2200 | 45 | 30 | 25 | 25 | 20 | 15 | 15 |
| 6000 x 2200 | 35 | 25 | 20 | 20 | 15 | 15 | 15 |

FURTHER INFORMATION

- Metsä Wood Plywood for transport industry brochure
- Metsä Wood KingSize Product Datasheet

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