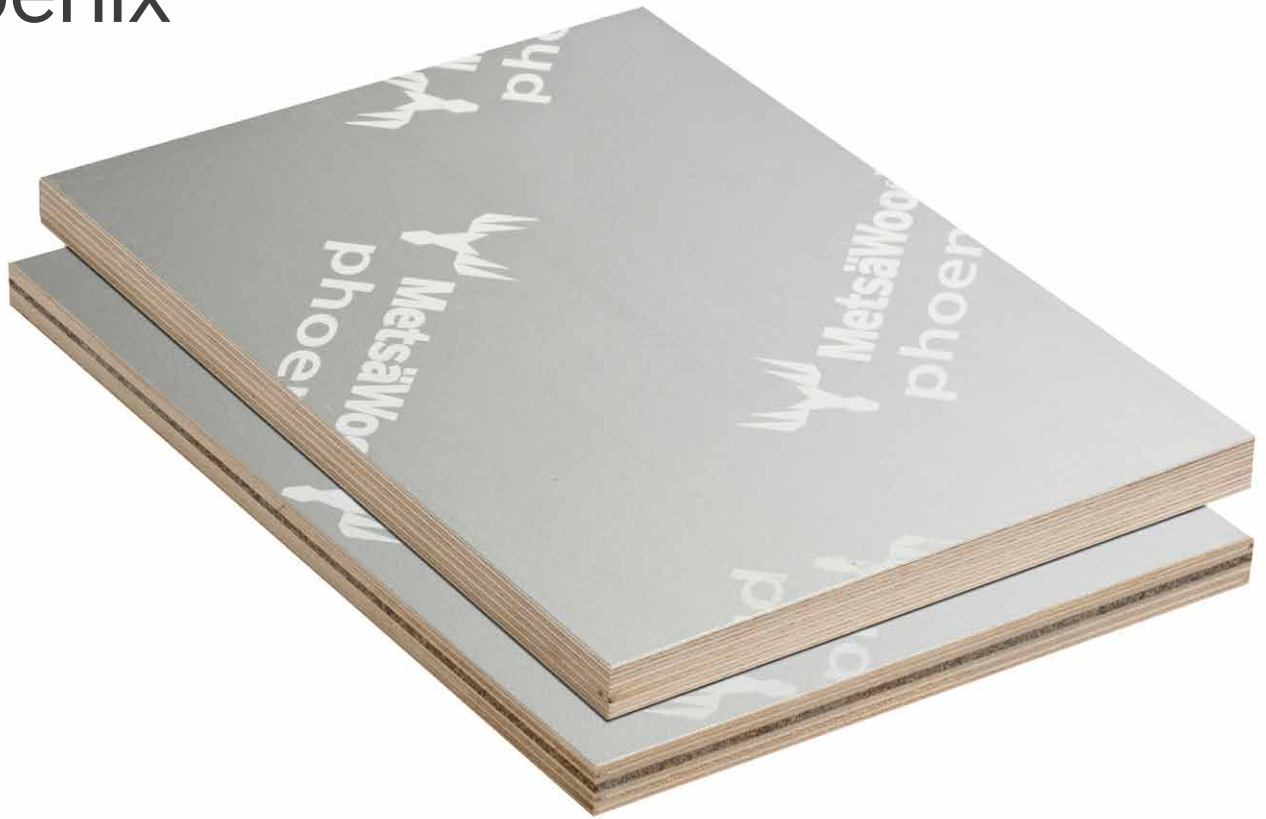


Birch Ply

Phoenix



Metsä Wood Phoenix plywood products provide enhanced fire performance for uses in transport industry. The product range consists of birch plywood and Sonex Light sound-absorbing sandwich panels overlaid with a special aluminium overlay. Phoenix products meet the requirements of many demanding end use applications.

Applications

The combination of fire performance, sound insulation properties and good strength-to-weight ratio make Phoenix an excellent choice for various applications in transport industry, like railway wagons and bus floors.

Major advantages

- Enhanced fire performance
- Good sound reduction properties with Phoenix Sonex Light
- Versatile uses – surface can be painted or overlaid
- Strong and rigid
- Excellent strength-to-weight ratio
- Dimensionally stable
- Air tight surface
- Environmentally friendly
- No endangered wood species
- No hazardous chemicals
- PEFC certified

Base plywood

The base plywood of Metsä Wood Phoenix 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.

The base plywood of Metsä Wood Phoenix Sonex Light is Metsä Wood Sonex Light, which is a composite panel consisting of Metsä Wood birch plywood and Amorim Cork composite sound reduction material.

Overlay and surface properties

Metsä Wood Phoenix has a special aluminum overlay. The primed aluminum overlay allows the surface to be painted or overlaid in the customers' own process according to the end use requirements. The compatibility of a surface coating or an adhesive should be confirmed from the coating supplier. Additionally a test coating is recommended prior to use.

Edge sealing

Panel edges are sealed against moisture absorption with acrylic edge sealing paint. The colour of the edge sealing is transparent. Even though the edge sealing slows down the absorption of moisture into the panel, it does not eliminate it completely.

Fire classification

The fire performance of Metsä Wood Phoenix products has been tested according to several standards and directives:

	PHOENIX	PHOENIX SONEX LIGHT
EN 45545-2: 2016: R10	HL1 to HL3	HL1 to HL3
EN 45545-2: 2016: R1, R7	HL1 to HL3	–
UN/ECE Regulation No. 118 (vertical and horizontal use)	meets requirements	
EN 13501-1: 2007	B-s1,d0	–

Sound insulation with sandwich panels

Metsä Wood Phoenix Sonex Light has good sound reduction properties, Rw index 30-31 dB, depending on the panel structure.

For more information please see Metsä Wood Sonex Light Product Data Sheet.

Panel sizes

	LENGTH (mm)	WIDTH (mm)		
		2,440	2,500	3,050
Phoenix	1,220*	■	■	■
	1,250*	■	■	■
	1,525*	■	■	■

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

■ = standard panel size

Other sizes are available on request.

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

THICKNESSES, THICKNESS TOLERANCES AND WEIGHT OF THE EXAMPLE PANELS *

BASE plywood structure***	THICKNESS	THICKNESS TOLERANCE*		WEIGHT**
	(mm)	min. (mm)	max. (mm)	kg/m ²
Phoenix	12	11.5	12.5	8.2
Phoenix	15	14.3	15.3	10.2
Phoenix	18	17.1	18.1	12.2
Phoenix	21	20	20.9	14.3
Phoenix Sonex Light	13	12	14	9.3
Phoenix Sonex Light	16	15	17	10.9
Phoenix Sonex Light	19	18	20	13.2

* Moisture content of the product affects its dimensions.

** Weights given in relative humidity RH 65 %.

*** Phoenix panels are also available with spruce plywood core. For more information please see Metsä Wood Spruce Phoenix Product Data Sheet.

Special structures and thicknesses are available on request. Customised tolerances are possible but must be agreed on 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 aluminium overlay is bonded with a weather-resistant adhesive (EN 204 class D4).

Formaldehyde emissions

Determined according to EN ISO 12460-3, the formaldehyde emitted by Metsä Wood Phoenix products falls far below the Class E1 requirement of ≤ 3.5 mg/(m²*h). The formaldehyde emission of Metsä Wood Phoenix is approximately 0.1 mg/(m²*h).

Mechanical properties

Metsä Wood Phoenix is a CE marked product and its strength and elasticity properties are identical with the Metsä Wood Birch standard plywood properties. The properties are specified according to standards EN 789 and EN 1058 and can be found in the Metsä Wood Phoenix Declaration of Performance (DoP). DoP documents can be downloaded from www.metsawood.com/dop.

Metsä Wood Phoenix Sonex Light strength and elasticity properties are identical with the Metsä Wood Sonex Light properties. Phoenix Sonex Light strength and elasticity properties can be found in the Metsä Wood Sonex Light Product Data Sheet.

Packaging

Metsä Wood Phoenix panels are packed in moisture-resistant plastic wrapping. Packing quantity information is available on Metsä Wood Sonex Light and Birch Product Data Sheets.

Further information

- Metsä Wood Phoenix Declaration of Performance (www.metsawood.com/dop)
- Metsä Wood Sonex Light Product Data Sheet
- Metsä Wood Birch Product Data Sheet

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