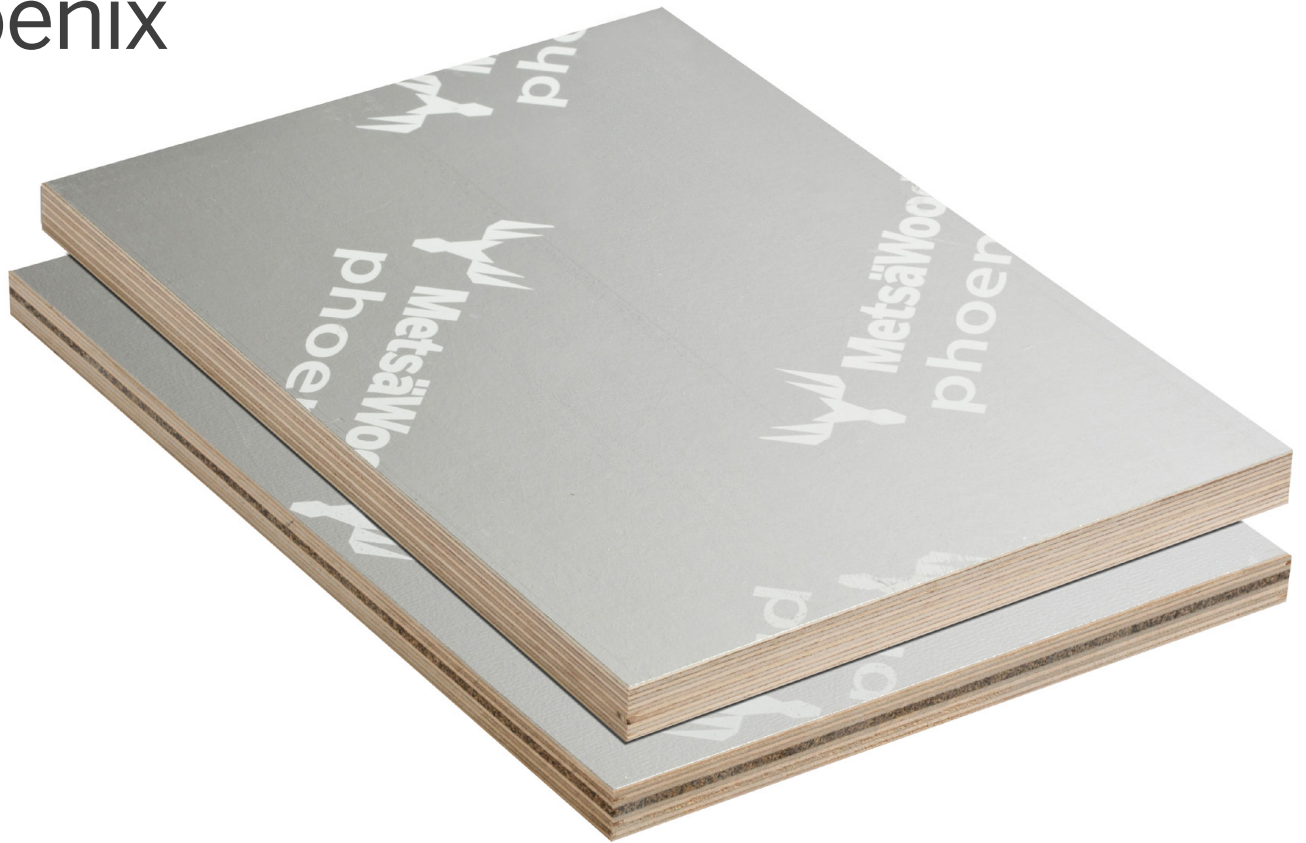


Birch Ply

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
- High strength/weight ratio
 - Strong and rigid
 - Light and dimensionally stable
- Air tight surface
 - Water vapour barrier
- Environmentally friendly
 - No endangered wood species
 - No hazardous chemicals
 - Low formaldehyde emissions
 - PEFC certified

BASE PLYWOOD

The base plywood of Metsä Wood Phoenix Birch 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.

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 aluminium overlay. The primed aluminium 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.

PANEL EDGES

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 Birch	Phoenix Sonex Light
prEN 45545-2: 2012: R10 (equal to EN 45545-2: 2013)	HL1 to HL3	HL1 to HL3
EN 45545-2: 2013: R1, R7	HL1 to HL3	-
DIN 5510-2: 2009	SF3	SF3
NFX 10702/NFX 70100, NF F 16101: 1988, NF P92-501: 1995, NF P 92-507: 2004	M1F0	M1F1
UNE 23721: 1990, UNE 23727: 1990	M1F0	M1F1
BS 6853: 1999	1a	1b
ASTM E162, ASTM E662, Bombardier SMP 800C, Boeing BSS 7239	-	meets requirements
EN 13501-1: 2007	B-s1,d0	-
CEI UNI 11170: 2010	LRI to LR4	-

SOUND INSULATION WITH SANDWICH PANELS

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

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

PANEL SIZES

Metsä Wood Phoenix is available in sizes:

- 1220 / 1250 / 1525 mm x 2440 / 2500 / 3050 mm
The first measurement indicates the orientation of the surface veneer grain.

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
< 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

BONDING CLASSES

Metsä Wood Phoenix base 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 / WBP

The aluminium overlay is bonded with a weather resistant adhesive (EN 204 class D4).

METSÄ WOOD

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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 Birch Plywood	12	11.5	12.5	8.2
Phoenix Birch Plywood	15	14.3	15.3	10.2
Phoenix Birch Plywood	18	17.1	18.1	12.2
Phoenix Birch Plywood	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.

FORMALDEHYDE EMISSIONS

Determined according to EN 717-2, the formaldehyde emitted by Metsä Wood Phoenix products falls far below the Class E1 requirement of $\leq 3,5$ mg/(m²*h). The formaldehyde emission of Metsä Wood Phoenix Birch is approximately 0,1 mg/(m²*h).

PANEL STRENGTH PROPERTIES

Metsä Wood Phoenix Birch 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 Birch 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.

PACKING

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

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