

Spruce Ply

Flex



Metsä Wood Spruce Flex is a softwood plywood overlaid with a coloured thermoplastic overlay. The panel is suitable for interior applications, such as wall and ceiling panels for agricultural constructions and warehouses.

APPLICATIONS

Metsä Wood Spruce Flex is a multi-purpose construction panel that can be used, for example, in ceilings, interior walls, packaging and other applications where a ready-finished surface solution is needed. Easy to clean, it is well suited for use as, for example, interior cladding for cattle housing.

MAJOR ADVANTAGES

- Ready-finished surface
- Excellent impact and crack resistance
- Lightweight, strong and dimensionally stable
- Easy to fix and cut
- Good wear resistance
- Easy to clean
- Good resistance against most chemicals
- Environmentally friendly
- Weather- and boil-proof bonding

BASE PLYWOOD

The base plywood of Metsä Wood Spruce Flex is Metsä Wood Spruce, which is made of cross-bonded 3 mm thick coniferous veneers and bonded with a weather- and boil-resistant phenol formaldehyde adhesive.

OVERLAY

Metsä Wood Spruce Flex has a thermoplastic overlay on both sides, which provides a ready-finished surface. The overlay is bonded to the plywood with a water-resistant glue. The overlay colour is white on one side and grey on the other.

SURFACE PROPERTIES

The surface of the overlay is slightly structured to improve wear and scratch resistance. The overlay is elastic, tough and does not crack easily.

The overlay is safe to use and free of chlorine, halogens, plasticizers, formaldehyde and heavy metals.

The surface is easy to clean with water and normal detergents. Strong acids, alkalis and e.g. acetone may cause visual changes on the surface.

Metsä Wood Spruce Flex has a ready-finished surface that is susceptible to scratches due to its softer appearance. Due to the structure of the coniferous veneers, some structures may be visible on the overlaid surface. Extra caution has to be taken in handling and storing the panels to prevent damage. Extreme moisture penetration may cause visible changes to the appearance of the product.

Technical properties of the surface

- Taber value is approx. 2000 R*
- Colour stability 6-7 according to DIN 54404
- Colour change $\Delta E < 1$ according to ISO 4892-2 (600 h)
- Crack resistance EN13696 no cracks
- Impact resistance Class IC3 according to EN438-2

* Abrasion resistance is tested according to EN 438-2 / DIN 53799

EDGE SEALING

Panel edges are sealed against moisture absorption with transparent edge sealing paint. Even though edge sealing hinders the absorption of moisture into the panel, it does not eliminate it completely.

PANEL SIZES

Metsä Wood Spruce Flex is available in sizes:

- 2400 / 2440 mm x 1200 / 1220 mm
- 2400 / 2440 mm x 600 / 610 mm

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 the requirements of EN 315.

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 (no.)	THICKNESS TOLERANCE		WEIGHT kg/m ²
		min. (mm)	max. (mm)	
9	3	7	9	4.1
12	4	10	12	5.5
15	5	13	15	6.9
18	6	16	18	8.3
21	7	19	21	9.7

* The moisture content of the product affects its dimensions

* Average density of Metsä Wood Spruce plywood is 460 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 (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 overlay is bonded to plywood with a weather-resistant adhesive (EN 204 class D4)

FORMALDEHYDE EMISSIONS

Determined according to EN 717-1, the formaldehyde emitted by Metsä Wood Spruce falls far below the Class E1 requirement of ≤ 0.100 ppm and also fulfils the most stringent requirements in the world (≤ 0.030 ppm). The formaldehyde emission of Metsä Wood Spruce is approximately 0.018 ppm. The thermoplastic overlay does not contain any formaldehyde.

PANEL STRENGTH PROPERTIES

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

PACKING

Metsä Wood Spruce Flex panels are packed either in moisture resistant plastic wrapping or covered pallets.

PACKING QUANTITIES

PANEL SIZE	NUMBER OF PANELS PER PALLET BY THICKNESS					
	mm	9	12	15	18	21
1200/1220 x 2400/2440		100	75	60	50	45

FURTHER INFORMATION

- Metsä Wood Spruce Flex Declaration of Performance (www.metsawood.com/dop)
- Metsä Wood Spruce Plywood Manual
- Metsä Wood Spruce Plywood for Construction brochure

METSÄ WOOD

P.O Box 50, 02020 Metsä, Finland

Tel. +358 1046 05

www.metsawood.com/spruceplywood

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.

