

Metsä Wood Spruce Flex



Metsä Wood Spruce Flex is a coniferous plywood panel overlaid with a coloured UV-resistant thermoplastic overlay. Panel is suitable for non-residential interior and exterior applications such as wall and ceiling panels for agricultural constructions and warehouses.

APPLICATIONS

Metsä Wood Spruce Flex is a construction panel that can be used for example in ceilings, walls, shelters and packaging. Easy to clean, it is well suited to use for example in the interior cladding of cattle houses.

MAJOR ADVANTAGES

- Excellent impact and crack resistance
- Good weather resistance
- Light, 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 Metsä Wood Spruce Flex basic plywood is softwood plywood with a thick-veneer structure. The phenolic-resin glue bonding of the panels is weather- and boil-proof.

OVERLAY

The top surface of the panel has a thermoplastic overlay which provides a ready finished surface. The grade class III on the panel reverse side is coated with a backing film and therefore not recommended as a use surface. Overlays are bonded to the plywood with weather resistant glue. The standard overlay colours are white and grey. Other colours are available upon special order.

SURFACE PROPERTIES

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

It is also moisture and UV resistant and provides hygienic surface.

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.

Excessive moisture entering the product may change its appearance.

When used in exteriors, moisture seeping in at the edges and brackets can cause damage and ruin the appearance.

Metsä Wood Spruce Flex plywood products have ready finished surface which is susceptible to scratches due to its softer appearance. Extra caution has to be practised in handling and storing the panels to prevent damage.

Technical properties of surface

- Taber value is approx 2000 R depending on overlay*
- 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



MetsäWood

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 standard spruce plywood sizes.

- 2400 x 1200 mm
 - 2440 x 1220 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 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	NUMBER OF PLYS	THICKNESS TOLERANCE		WEIGHT
		min. (mm)	max. (mm)	
(mm)	(pcs)			kg/m ²
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
24	8	21.5	24	11.0
27	9	24.5	27	12.4
30	10	27.5	30	13.8

* Moisture content of the product affects its dimensions

* Average density of Metsä Wood Spruce plywood is 460 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 phenolic resin 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

Overlay is bonded to plywood with weather resistant glue (EN 204 class 4)

FORMALDEHYDE EMISSIONS

Determined according to EN 717-1, the formaldehyde emitted by Metsä Wood Spruce panels 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 Spruce is approximately 0,018 ppm. Thermoplastic overlay does not contain any formaldehyde.

PANEL STRENGTH PROPERTIES

Metsä Wood Spruce Flex strength and elastic properties are identical to standard Spruce plywood. Panel strength and elastic properties can be found in the VTT certificate 4/95.

MACHINING

Metsä Wood Spruce Flex plywood panels can be machined and predrilled according to customer specification on special request.

PACKING

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

PACKING QUANTITIES

PANEL SIZE	mm	NUMBER OF PANELS PER PALLET BY THICKNESS							
		9	12	15	18	21	24	27	30
1200/1220 x 2400/2440		100	75	60	50	45	40	35	30

FURTHER INFORMATION

- VTT certificate 4/95, 2012
- Metsä Wood Flex brochure
- www.metsawood.com

METSÄ WOOD

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