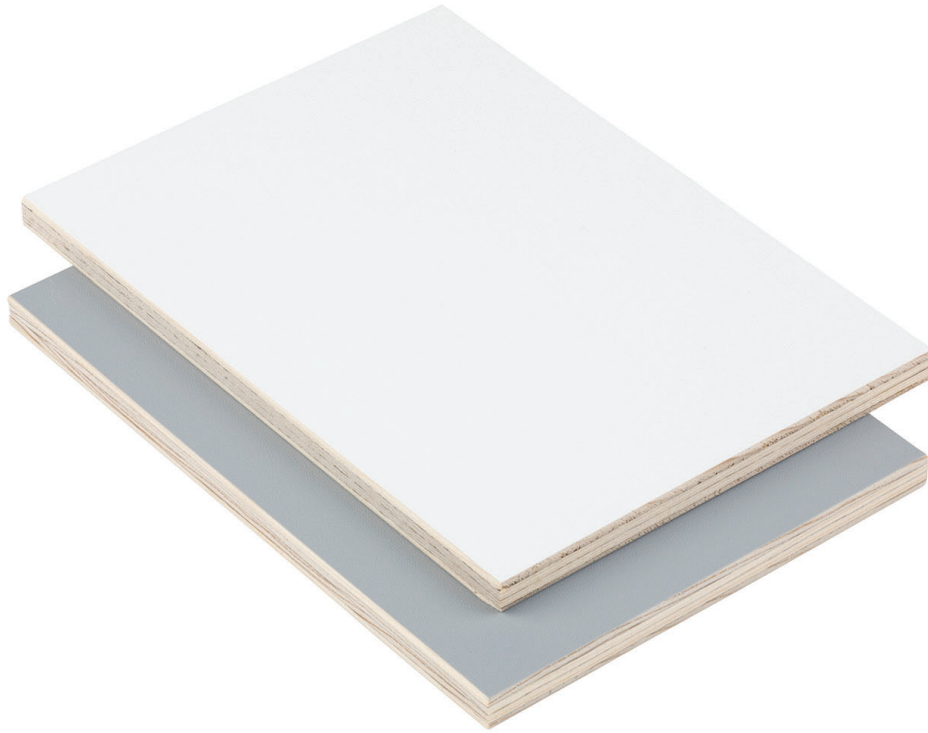


# Spruce Ply

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

### 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 coloured 0.2mm thick overlay on both sides, which provides a ready-finished lightly structured (miniburl) 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.

### PANEL SIZES

Metsä Wood Spruce Flex is available in sizes:

- 2400 mm x 1200 mm

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

# Spruce Ply

## Flex

### 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.

### 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          |
|-------------------|--------------------|
| < 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 |

### 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 overlay is bonded to plywood with a weather-resistant adhesive (EN 204 class D4).

### THICKNESSES, STRUCTURES AND THICKNESS TOLERANCES

#### THICKNESSES, STRUCTURES AND THICKNESS TOLERANCES OF THE PANELS\*

| NOMINAL THICKNESS<br>(mm) | NUMBER OF PLYS<br>(no.) | THICKNESS TOLERANCE |           | WEIGHT<br>kg/m <sup>2</sup> |
|---------------------------|-------------------------|---------------------|-----------|-----------------------------|
|                           |                         | 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/m<sup>3</sup> (at a relative humidity of 65%)

\* Special structures and thicknesses are available on request

\* Customised tolerances are possible but must be agreed separately

### FORMALDEHYDE EMISSIONS

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

### APPROVALS AND DESIGN PROPERTIES

Metsä Wood Spruce Flex is CE and UKCA marked and the design properties are determined according to standard EN 13986. The design properties given in the Declaration of Performance (DoP) and in the UK Declaration of Conformity (UK DoC) are to be used for structural calculations with EN 1995 (Eurocode 5). The DoP documents can be downloaded from [www.metsawood.com/dop](http://www.metsawood.com/dop) and the UK DoC documents can be downloaded from [www.metsawood.com/ukdoc](http://www.metsawood.com/ukdoc).

### PACKAGING

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 |
| 2400 x 1200     | 100                                      | 75 | 60 | 50 | 45 |

### FURTHER INFORMATION

- Metsä Wood Spruce Flex Declaration of Performance ([www.metsawood.com/dop](http://www.metsawood.com/dop))
- Metsä Wood Spruce Flex the UK Declaration of Conformity ([www.metsawood.com/ukdoc](http://www.metsawood.com/ukdoc))
- Metsä Wood Spruce Plywood Manual
- Metsä Wood Spruce Plywood for Construction brochure

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