

Metsä Wood Spruce MouldGuard



Metsä Wood Spruce MouldGuard is a surface impregnated softwood plywood panel, reducing significantly the risk of mould growth compared to unprotected softwood plywood panels. The product provides a ready to use surface in moist conditions, with a natural visual quality.

APPLICATIONS

Metsä Wood Spruce MouldGuard is an all-purpose construction panel to conditions where the relative air moisture content might exceed 75%. It can be used in the same way as standard Metsä Wood Spruce plywood panels*. Most preferable applications for the product can be found in use class 2 and 3.1 conditions (EN335-1).

- Building applications: Roof, floor and wall structures, agricultural buildings, attics, roof overhangs etc.
- Renovation: repairing, improving and renovating homes and buildings
- In general: Applications under a risk of increased humidity, such as unheated buildings and structures e.g. car shelters, roof panels

MAJOR ADVANTAGES

- Long term mould protection in moist conditions
- Decreased health risks
- Improved visual durability of the structures
- Ready to use surface saves time at construction site
- Strong, rigid and lightweight panel
- Easy to machine and install using conventional woodworking tools and fasteners
- Weather and boil proof bonding
- Available with square edge and tongue-and-groove profiles

* Direct contact to the foodstuff or animal feed should be avoided

BASE PLYWOOD

Metsä Wood Spruce MouldGuard plywood is made of cross-bonded 3 mm thick coniferous veneers and bonded with a weather and boil-resistant phenolic resin adhesive.



MetsäWood

SURFACE PROPERTIES

Metsä Wood Spruce MouldGuard panels have a light brown color. Surface can be unsanded or sanded on both sides. The surface can be further treated with standard paints, lacquers and varnishes applicable on wood products. Confirm the compatibility of surface treatment from the supplier.

The surface veneer grades are determined as follows:

Spruce plywood surfaces	Typical properties
II	– sound surface, might be repaired with filler. Unrepaired defects with a ø max. 5 mm are permitted.
III+	– open defects repaired with filler.
III	– standard quality, with open defects such as knotholes and veneer checks.

Primary grade combinations are II/III and III/III.

Classification of Metsä Wood Spruce surface grade meets EN 635 requirements. For more specific surface grade data, see Handbook of Finnish Plywood.

PANEL SIZES

Metsä Wood Spruce MouldGuard is available in sizes.

- 2400 / 2440 / 2500 mm x 1200 / 1220 / 1250 mm
 - 2400 / 2440 mm x 600 / 610 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

THICKNESS, STRUCTURES AND THICKNESS TOLERANCES

The thickness tolerances fulfill the requirements of standard EN 315 and is in part more stringent than the official requirements.

THICKNESSES, STRUCTURES AND THICKNESS TOLERANCES OF THE PANELS *

NOMINAL THICKNESS	NUMBER OF PLIES	THICKNESS TOLERANCE		WEIGHT
(mm)	(pcs)	min. (mm)	max. (mm)	kg/m ²
9	3	8.8	9.5	4.1
12	4	11.5	12.5	5.5
15	5	14.3	15.3	6.9
18	6	17.1	18.1	8.3
21	7	20.0	20.9	9.7
24	8	22.9	23.7	11.0
27	9	25.2	26.8	12.4
30	10	28.1	29.9	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

PERFORMANCE AGAINST MOULD GROWTH

Metsä Wood Spruce MouldGuard surface is impregnated with wood preservative. The preservative is classified for hazard class 3 (EN 599-1). Efficiency of the chemical is verified according to EN 113 (decay) and EN 152-1 (blue stain) tests.

Metsä Wood Spruce MouldGuard is tested by VTT Technical Research Centre of Finland. According to the test results the mould and blue stain resistance is significantly better (4-5 times) compared to unprotected Metsä Wood Spruce plywood.

Production of Metsä Wood Spruce MouldGuard is controlled by VTT.

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

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 (≤ 0,030 ppm).

The formaldehyde emission of Metsä Wood Spruce is approximately 0,018 ppm. MouldGuard treatment does not contain any formaldehyde.

PANEL STRENGTH PROPERTIES

Metsä Wood Spruce strength and elastic properties are specified according to standards EN 789 and EN 1058 and can be found in the VTT certificate 4/95.

MACHINING

Metsä Wood Spruce MouldGuard panels can be delivered with tongue-and-groove edge machining either on two sides or on four sides. Tongue-and-groove panels are always sanded.

PACKING

Metsä Wood Spruce panels are packed in moisture resistant plastic wrapping.

PACKING QUANTITIES

NUMBER OF PANELS PER PALLET BY THICKNESS									
PANEL SIZE	mm	9	12	15	18	21	24	27	30
2400/2440 x 2500 x 1200/1220/1250		110	85	65	55	45	40	35	30

WASTE HANDLING

Metsä Wood Spruce MouldGuard panels can be disposed by burning. Due to preservative treatment the correct combustion conditions and suitable waste burning plants should be checked locally.

FURTHER INFORMATION

- VTT certificate 4/95, 2012
- Handbook of Finnish Plywood, Finnish Forest Industries Federation, 2001
- www.metsawood.com

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