

Spruce Ply

WeatherGuard®



Metsä Wood Spruce WeatherGuard is a softwood plywood which has a hydrophobic surface. The surface rejects rainwater and therefore reduces the amount of water absorbed by the panel during construction work. At the same time the surface allows the panel to breathe and water vapour to move freely.

APPLICATIONS

Metsä Wood Spruce WeatherGuard is a multi-purpose construction panel which is also suitable for various other applications.

- **Building applications:** floor, wall and roof structures, agricultural structures, pedestrian bridges, construction platforms etc.
- **Renovation:** repairing, improving and renovating buildings
- **Other applications:** packing applications, vehicle industry, fences, hoardings etc.

MAJOR ADVANTAGES

- Temporary protection against rain
- Shorter drying period of structures
- Better dimensional stability under changing conditions
- Treatment does not block water vapour movements
- Strong, rigid and lightweight
- Easy to machine and install using conventional woodworking tools and fasteners
 - panel is impact resistant and does not crumble
 - good base for fasteners
- Weather and boil proof bonding
- Environmentally friendly
- Available with square edges and tongue-and-groove profiles

BASE PLYWOOD

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

SURFACE PROPERTIES

Metsä Wood Spruce WeatherGuard panels can be unsanded or sanded on both sides. The colour of WeatherGuard treatment is transparent. WeatherGuard treatment gives temporary protection against rain.

The surface can be treated with standard paints, lacquers, vanishes and protection treatments applicable on wood products. The compatibility of the surface treatment is recommended to be confirmed from the supplier. Also carpets, linoleum, tiles etc. can be glued to the surface.

The surface grades are determined by the grade of the surface veneers 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.

PANEL SIZES

Metsä Wood Spruce WeatherGuard 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 fulfil the requirements of standard EN 315 and are in part more stringent than the official requirements.

THICKNESSES, STRUCTURES AND THICKNESS TOLERANCES OF THE PANELS *

NOMINAL THICKNESS (mm)	NUMBER OF PLYS (pcs)	THICKNESS TOLERANCE		WEIGHT kg/m ²
		min. (mm)	max. (mm)	
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

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

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 fulfils also the most stringent requirements in the world ($\leq 0,030$ ppm). The formaldehyde emission of Metsä Wood Spruce is approximately 0,018 ppm. WeatherGuard treatment does not contain any formaldehyde.

PANEL STRENGTH PROPERTIES

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

MACHINING

Metsä Wood Spruce WeatherGuard plywood can be delivered with tongue-and-groove edge machining either on two sides or on four sides. Tongue-and-groove panels are always sanded. Tongue-and-groove machining decreases net panel size by 10 mm. Tongue-and-groove machining is available for panel thicknesses ≥ 12 mm.

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PACKING

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

PACKING QUANTITIES

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

FURTHER INFORMATION

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

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