

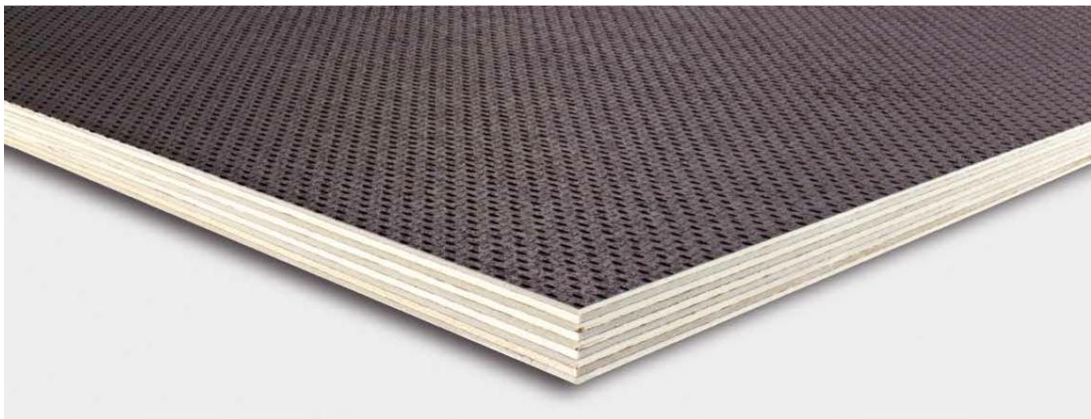
Whittle Flooring Company
Limited

Technical Data Sheet

TSWF-PWWS

Finnish Birch Plywood with dark brown
Phenolic Film, wire-mesh pattern one
side and smooth film reverse

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Whittle Flooring Company Limited Plywood specification PWWS is a plywood panel coated with dark phenolic resin coating with slip resistant wire mesh pattern. This product is intended for use as flooring in the transport industry such as trailers, horse boxes and railway wagons and building applications such as warehouse floors, loading platforms and scaffolding.

Base board

Finnish Birch plywood is constructed from 1.4mm thick veneers (plies) glued in a cross bonded lay-up. The Botanical name for Finnish Birch is *Betula Pendula* (Silver Birch).

Bonding

Phenolic resin cross banded weather resistant gluing according to **EN 314-2 Class 3**; Capable of withstanding exposure to weathering conditions and liquid water over sustained periods of time. (Superseding BS 6566: WBP)

Performance Class

Biological durability; for use as a structural component in exterior conditions including liquid water or water vapour in damp but ventilated locations in accordance with **EN 636-3 S**.

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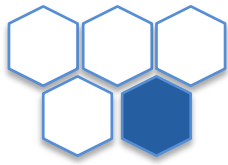
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Surface

Face: Phenolic resin coating with wire mesh pattern, dark brown. Coating weight: 220g/m²

Reverse: Phenolic moisture barrier. Available either smooth or imprinted.

Technical Properties of Panel Surface

Wear resistance Taber abrasion value (DIN 53799); 570 rounds on 220g/m²

Rolling test (SS 923502) 1750 revolutions ± 35 % cycles

Formaldehyde Emissions

Very low Emission class **E1** in accordance with **EN 717-2** (gas analysis method). The Formaldehyde emission from uncoated exterior plywood is under 0.4mg/(m² x h), significantly lower than the Class E1 requirement of 3.5mg/(m³ x h).

Release class **A** in accordance with **EN 1084**.

This plywood does not contain pentachlorophenol (PCP).

Source

Plywood and veneer come only from legal sources within Europe and conform to all the relevant standards and regulations including European Union Timber Regulation (**EUTR**). Birch is 70% **PEFC** certified **BMT-PEFC-1510** (Specify requirement on ordering).

Edge Sealant

All machined edges and rebates are sealed with two coats of preservative treatment and two coats of copolymer paint.

Machining

Full CNC machining service available as well as bonding and assembly work undertaken. CNC machined tolerances to BS EN 22768. Please forward CAD/drawing for quotation

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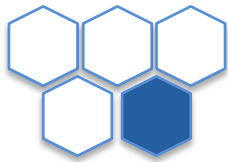
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Thicknesses and Weights

Thicknesses and weight of standard and scarf-jointed plywood tolerances fulfil the EN 315 (Plywood - Tolerances for dimensions) requirements.

Nom. Thickness mm	No. of Plies	Min. Thickness mm	Max Thickness mm	Weight Kg/m ²
9	7	8.8	9.5	6.1
12	9	11.5	12.5	8.2
15	11	14.3	15.3	10.2
18	13	17.1	18.1	12.2
21	15	20.0	20.9	14.3
24	17	22.9	23.7	16.3

Sizes and thicknesses relating to moisture content 8-12%
Other thicknesses available in additional increments of 3mm

Panel Sizes

Standard: 1200/1220/1250/1500/1525 x 2400/2440/2500/3000/3050 mm

The largest standard size 1525mm x 3660mm

The largest scarf-jointed panel size 12300 x 2700 mm.

Panel Size Tolerances

Non-machined sheet material only

Size	Tolerance
< 1000mm	+/- 1mm
1000-2000mm	+/- 2mm
2000-6000mm	+/- 3mm
> 6000mm	+/- 5mm

Squareness tolerance +/- 1mm per 1000mm

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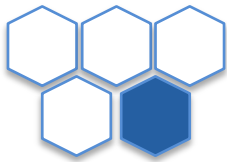
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Strength Characteristics

Finnish Birch Plywood						Characteristic strength		Mean modulus of elasticity	
Section Properties						Bending		Bending	
Nominal thickness	Number of plies	t_{mean} mm	A mm ² /mm	W mm ³ /mm	I mm ⁴ /mm	$f_{m }$ N/mm ²	$f_{m\perp}$ N/mm ²	$E_{m }$ N/mm ²	$E_{m\perp}$ N/mm ²
9	7	8.8	8.8	12.9	56.8	45.6	32.1	11395	6105
12	9	11.6	11.6	22.4	130	42.9	33.2	10719	6781
15	11	15.4	15.4	39.5	304	41.3	33.8	10316	7184
18	13	17.8	17.8	52.8	470	40.2	34.1	10048	7452

Storing Instructions

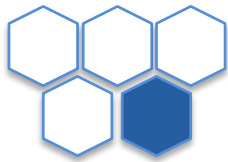
Store plywood panels in a dry, covered place away from direct sunlight. Panels should be stored horizontally on a level surface in an atmosphere conducive to the environment intended for its end use.

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Other Information

1. **Embodied energy** - Wood has the lowest embodied energy of any mainstream building material; glass requires six times the amount of energy to produce than wood, Steel 24 times and Aluminium 125 times. In Finland, this is further enhanced by harvesting Biomass energy from the by-products to power the production process.
2. **Thermal insulation** - Timber has the best thermal insulation properties of any mainstream building material, for example it is 350 times better than Steel.
3. **Stable supply** - Finnish forests have annual quotas for felling and replanting trees, the ratio of which is controlled by regulatory authorities. This ensures a long-term supply whilst preserving the environment.
4. **Recyclable** - Plywood and the wood waste from production processes has many recyclable uses, with the latest landfill directives creating even greater demand for such alternative uses.
5. **Sustainable Forestry** - All our plywood comes from sustainable, managed forests certified by the **PEFC** with a system of Chain of Custody certification allowing traceability from the forest to the end user. The **PEFC** provides an assurance mechanism to purchasers of timber products that they are promoting the sustainable management of the forests.
6. **Carbon Neutral** - Wood from sustainable forests can actually be better than carbon neutral.

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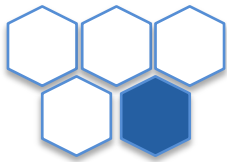
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