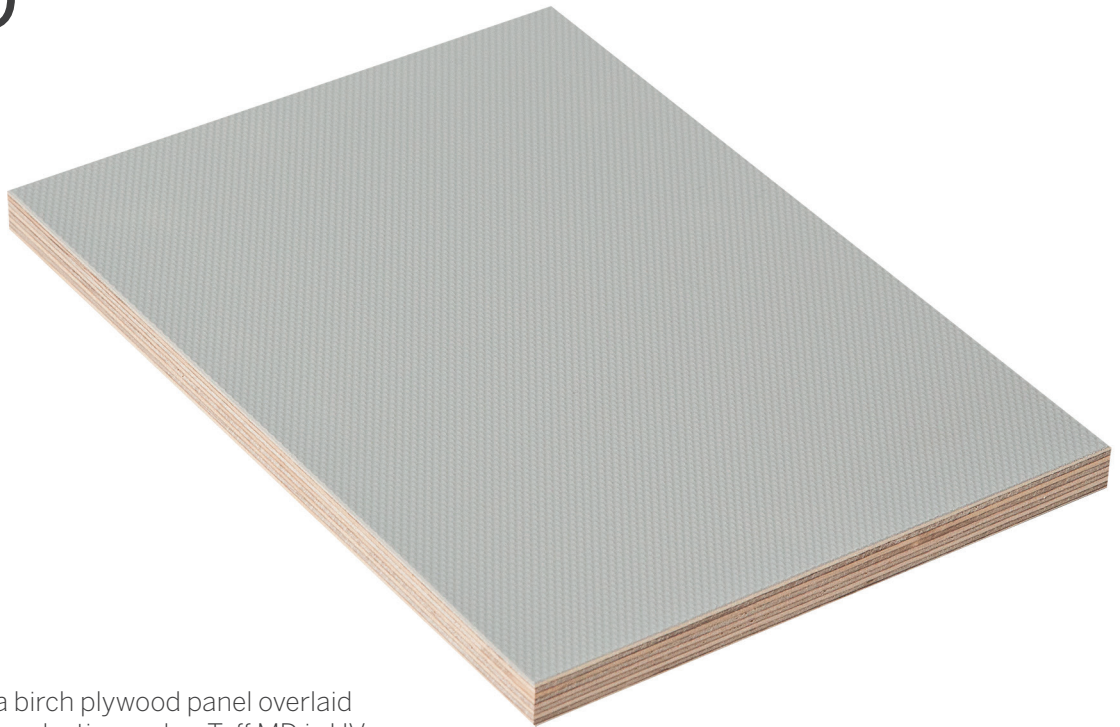


Birch Ply

Tuff MD



Metsä Wood Tuff MD is a birch plywood panel overlaid with a high quality thermoplastic overlay. Tuff MD is UV-resistant and therefore suitable for interior and exterior flooring applications. The combination of technical properties with high class surfaces makes Tuff MD an excellent panel for various flooring applications.

APPLICATIONS

Metsä Wood Tuff MD provides an easy ready finished surface solution for flooring applications.

Transport industry:

- Floorings for vans and light trailers

Building industry:

- Industrial-, shop-, kitchen- and sanitary floorings
- Working platforms
- Playground furniture

MAJOR ADVANTAGES

- Excellent wear resistance
- Flexible and slip resistant surface
- Excellent impact and crack resistance
- Strong, rigid and dimensionally stable panel
- Easy to fix and cut
- Easy to clean
- Good weather resistance
- Good resistance against most chemicals
- Environmentally friendly

BASE PLYWOOD

The base plywood of Metsä Wood TuffMD is Metsä Wood Birch. Birch plywood is made of cross-bonded 1.4 mm thick birch veneers bonded with weather- and boil-resistant phenol formaldehyde adhesive.

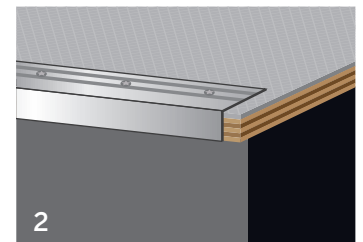
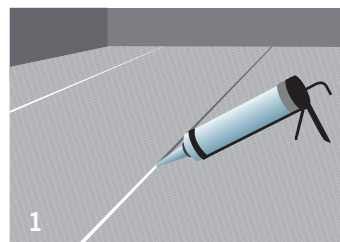
OVERLAY

Metsä Wood Tuff MD panels are overlaid with extra durable mini-diamond patterned (MD) polypropylene based overlay. The overlay provides slip resistance and has UV-additives to make it resistant against the sunlight. The overlay is safe to use and it is free of chlorine, halogens, plasticizer, formaldehyde and heavy metals. The overlay is bonded to plywood with water-resistant adhesive. Tuff MD is available in grey colour.

INSTALLATION

Metsä Wood Tuff MD panels can be cut, shaped and drilled using standard wood-working tools. Raw edges and holes should be sealed with a suitable water resistant paint. Tuff MD panels can be easily fastened with conventional screws.

For maximum service life, it is recommended to seal the panel joints with elastic gap-filling sealing compound (figure 1). Panel edges which are exposed to wear are recommended to be protected with edge protection strips (figure 2).



Birch Ply

Tuff MD

SURFACE PROPERTIES

The surface of Metsä Wood Tuff MD overlay is structured and slip resistant. Overlay is elastic, tough and does not crack easily. It has extremely good wear resistance. 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.

Technical properties of surface

- Resistance to Surface wear according to EN 438-2 (Taber value) 7500R. Abrasion Class AC5.
- Weather resistance according to ISO 4892-3; ASTM G 154: After 6000h artificial weathering test minimal visual and no technical changes detected on the surface
- Crack resistance EN13696 no cracks
- Impact resistance Class IC3 according to EN438-2

EDGE SEALING

Panel edges are sealed against moisture absorption with edge sealing paint. The standard colour of the edge sealing is transparent. Even though edge sealing slows down the absorption of moisture into the panel, it does not eliminate it completely.

PANEL SIZES

Metsä Wood Tuff MD is available in sizes:

- 1500 / 1525 mm x 2500 / 3000 / 3050 / 3660 mm

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

Other sizes are available on request. Larger size scarf-jointed XL panels are also available by special order.

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

THICKNESSES, STRUCTURES AND THICKNESS TOLERANCES

THICKNESSES, STRUCTURES AND THICKNESS TOLERANCES OF THE PANELS *

NOMINAL THICKNESS	NUMBER OF PLYS	THICKNESS TOLERANCE		WEIGHT
(mm)	(pcs)	min. (mm)	max. (mm)	kg/m ²
12	9	12.0	13.0	8.6
15	11	14.8	15.8	10.6
18	13	17.6	18.6	12.6
21	15	20.5	21.4	14.7
24	17	23.4	24.2	16.7
27	19	25.7	27.3	18.8
30	21	28.6	30.4	20.8

* Moisture content of the product affects its dimensions

* Average density of Metsä Wood birch plywood is 680 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

METSÄ WOOD

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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 weather-resistant adhesive (EN 204 class D4).

FORMALDEHYDE EMISSIONS

Determined according to EN 717-1, the formaldehyde emitted by Metsä Wood Birch 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 Birch is approximately 0,013 ppm. Thermoplastic overlay does not contain any formaldehyde.

PANEL STRENGTH PROPERTIES

Metsä Wood Tuff MD strength and elasticity properties are identical with the Metsä Wood Birch standard plywood properties. The properties are specified according to standards EN 789 and EN 1058 and can be found in the Metsä Wood Birch Declaration of Performance (DoP). DoP documents can be downloaded from www.metsawood.com/dop.

MACHINING

Metsä Wood Tuff MD plywood panels can be machined according to customer specification on request.

PACKING

Metsä Wood Tuff MD 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
1500 / 1525 x 2400-3660		65	50	40	35	30	25	25	20
1500 / 1525 x 1500-2135		100	75	60	50	45	40	35	30

FURTHER INFORMATION

- Metsä Wood Birch Declaration of Performance (www.metsawood.com/dop)

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