


PROVEN  
**WISA**® Plywood  
FOR **CONCRETE**  
**FORMING**





# Plywood is a sustainable choice


WISA products are made of natural, renewable wood raw material. Wood is a durable material and properly maintained wood products have long service lives.


With UPM's ecodesign approach we aim to make our products sustainable over their whole lifecycle – so can you too. Reuse or recycle your WISA plywood products when they are no longer fit for formwork. And at the end of their lifespan the panels can even be chipped and utilised in bioenergy production.


- 


Legally sourced birch and spruce from sustainably managed forests
- 


Production water returned to the water cycle after proper treatment
- 

Available either PEFC™ or FSC® certified
- 

Consumes considerably less energy than competing materials
- 

Upholding biological diversity, natural ecosystems and the carbon cycle
- 

Produced using mainly renewable energy sources
- 

Manufactured according to the strictest national and international environmental legislation
- 

Visit and learn more at [www.wisaplywood.com/environment](http://www.wisaplywood.com/environment)

## Why the most satisfied formworkers want WISA®?

Together with concrete formworkers around the world we have perfected the WISA-Form product and service range to meet your construction needs.

Our sustainably produced plywood has been tried and tested in the most demanding formwork applications. We provide you with formwork panels that offer both unrivalled functionality and produce visually pleasing concrete faces.

Plywood has been UPM's forte for over a century and the formwork industry has relied on our products and knowhow for several decades.

We understand that your building project waits for no one. This is why our global sales and logistic service ensures you get your plywood panels – just when and where you need them.

## Here's 10 great reasons to choose WISA-Form plywood

- ✓ Proven and tested consistent quality
- ✓ Excellent strength to weight ratio
- ✓ Good load bearing properties
- ✓ Accurate dimensional tolerances
- ✓ Maxi-sized panels
- ✓ Easy to clean panels for extended reuses
- ✓ Solutions for every formwork application
- ✓ Tailor-made components according to your specifications
- ✓ Global technical support and logistics service
- ✓ Certified sustainable products

For PEFC products visit [www.pefc.org](http://www.pefc.org)  
 For FSC products visit [www.fsc.org](http://www.fsc.org)



## UPM as your plywood supplier









We are a trusted leader in plywood manufacturing. Since 1912 satisfied customers across Europe and elsewhere have chosen UPM Plywood. Our WISA® trademark has become the epitome of quality and responsible innovation. We have currently nine production units in total in Finland, Russia and Estonia with an overall capacity of approx. one million cubic meters of plywood and veneer.

- What does our promise Efficiency Made Easy™ mean to you:**
- ✓ Products that improve your cost, material and energy efficiency
  - ✓ Reliable and timely deliveries
  - ✓ Local knowledge, support and service
  - ✓ Proven and documented technical data and environmental statements
  - ✓ Plywood production with minimised environmental impact
  - ✓ Commitment to development



# WISA®-Form product range

Each WISA-Form plywood product features unique properties to give you every possible advantage to achieve the best concrete finish.

Product	Typical applications	Approximate re-usage
 WISA®-Form Elephant	Walls and slabs	Over 100 times
 WISA®-Form Birch <sup>MBT</sup>	Walls and slabs	20–80 times
 WISA®-Form Maxi Birch	Walls and slabs	30–80 times
 WISA®-Form Birch	Walls and slabs	20–80 times
 WISA®-Form Beto	Slabs	10–15 times
 WISA®-Form Slab	Slabs	5–10 times
 WISA®-Form MDO	Slabs	5–10 times
 WISA®-Form Spruce	Slabs	5–10 times

The standard sizes are 1250 x 2500 mm and 1525 x 3050 mm. Please see product specific sizes on product fact sheet on [wisaplywood.com](http://wisaplywood.com). Cut sizes and machining on customer's request.

Standard versions: The number of times the plywood can be reused is only intended as an approximate guide. It does not imply any form of warranty. The actual number of reuses will depend on several factors other than the plywood.

Bonding: All WISA-Form plywood panels have a weather resistant gluing according to EN 314-2/ CLASS 3.



## Mechanical properties of plywood

Product	Nominal thickness (mm)	Mean modulus of elasticity Bending (N/mm <sup>2</sup> )		Characteristic strength Bending (N/mm <sup>2</sup> )	
		Em II	Em I-	fm II	fm I-
WISA®-Form Birch <sup>MBT</sup>	18 (13-ply)	10048	7452	40.2	34.1
	21 (15-ply)	9858	7642	39.4	34.3
WISA-Form Birch	18 (13-ply)	10048	7452	40.2	34.1
	21 (15-ply)	9858	7642	39.4	34.3
WISA-Form Beto	18 (11-ply)	8767	5988	35.1	17.1
	21 (11-ply)	7621	6774	30.5	18.9
WISA-Form Slab	18 (7-ply)	8170	3830	20.4	13.0
	21 (7-ply)	7547	4453	18.9	14.3
WISA-Form MDO	18 (7-ply)	8170	3830	20.4	13.0
	21 (7-ply)	7547	4453	18.9	14.3
WISA-Form Spruce	18 (9-ply)	5395	6605	13.5	18.8
	21 (11-ply)	5226	6774	13.1	18.9

Moisture content 10 ±2%

Excluding WISA-Form Elephant. Please ask for further information.

Note that these are approximate values. You can find detailed design values in each product's Declaration of Performance (DoP) document. Please visit [www.wisaplywood.com/dop](http://www.wisaplywood.com/dop)



# Good site practice

Get the best concrete surface quality and extend the service life of your formwork panels with careful site handling and cleaning between castings.

## Storage

- ✓ Store the panels in dry conditions, flat on a level surface, off the ground and direct sunlight. Preferably indoors.
- ✓ Keep the panels in as stable conditions as possible. Fluctuations in temperature and humidity may cause panels to distort.
- ✓ If the panels are stored on site for more than a few days remove the outer packing and strapping. CAUTION: Once the strapping has been removed the overlaid panels are extremely slippery. Always remember to fasten the panels before moving them with mechanical handling equipment.



Protect the panels from long-term direct and indirect moisture.



Fasten unstrapped panels before moving them

## After use

- ✓ Clean, dry and re-treat panels after every use. Use plastic or nylon tools for cleaning to avoid damaging the panels.
- ✓ Repair deeper scratches and holes with suitable fillers. Wooden insert systems are available for larger repairs.



Re-treat the panels



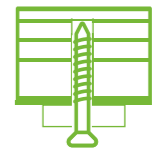
Use appropriate tools to clean the panels

## Form preparation

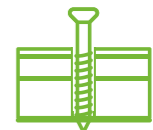
- ✓ WISA-Form panels are all protected with edge paint to reduce moisture penetration. If you cut or drill the panels or the edges are worn out, make sure to paint all cuts and holes with suitable acrylic paint.
- ✓ For the best results fasten the plywood from the formwork support members into the back of the panel.
- ✓ Pre-treat the formwork panels with a suitable release agent before every use to ensure cleaner striking of the forms and more reuses. Please follow the instructions of the release agent supplier.



Protect edges and holes



Back face fastening (recommended)



Front face fastening

## Recycling and end of the lifespan use

- ✓ At the end of their lifespan the panels can be chipped and used in bioenergy production at your local power plant.



WISA plywood packaging materials are fully recyclable



Use in bioenergy production



**UPM**

[www.wisaplywood.com](http://www.wisaplywood.com)