



# BEAMS AND WOOD BOARDS FOR FORMWORK

Quality for highest site demands



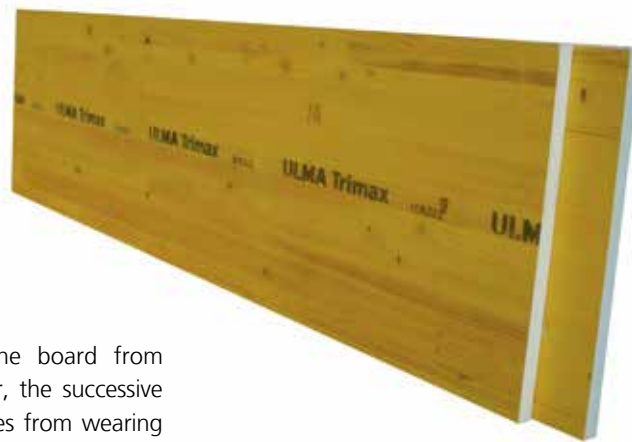
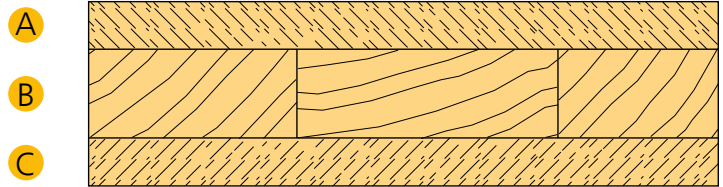
## ▶ ULMA Trimax Board

### ■ Product description

The 3-ply board as shuttering face offers many advantages:

- ▶ Great **strength** on building site
- ▶ High **durability and dimensional stability**
- ▶ **Quality** concrete finish

Trimax consists of three layers of glued spruce plies. The AW 100 glue is applied according to standard ÖNORM B3023. The first and third layer (A) have their grain at right angles to the second layer (B).



The direction of plies prevents the board from tearing or breaking apart. Moreover, the successive intermediate layers prevent the edges from wearing or getting damaged due to numerous uses.

The **outer surface is coated** with yellow-coloured synthetic melamine resin of 130 g/m<sup>2</sup>. The resultant concrete finish has a light texture of wood and micro pores. **The panel edges are sealed** with polyurethane to prevent moisture absorption and concrete sticking.

#### Scope of application:

- ▶ Horizontal and vertical formwork
- ▶ Formwork for bridges and tunnels
- ▶ Working platforms

Number of uses approximately 20-30\*.

\* The number of uses is a reference value and non-binding. Variable value depending on the conditions of use and treatment of the material.

#### Product certifications:



· Austrian standard B 3023 three-layer wood boards.



· PEFC : Chain of custody.



Do not leave objects fall on, nor jump on the formwork panels.

## Technical specifications

<b>Product</b>	3-ply concrete formwork panel with smooth surface and melamine coating according to Austrian standard B 3023 «solid wood panels»																
<b>Wood type</b>	Spruce/fir																
<b>Wood moisture</b>	12% ± 3% at the time of delivery																
<b>Gluing</b>	According to Austrian standard B 3023 (AW 100)																
<b>Weight</b>	21 mm, approx. 10.0 kg/m <sup>2</sup> 27 mm, approx. 12.5 kg/m <sup>2</sup>																
<b>Layout</b>	<ul style="list-style-type: none"> <li>•Manufactured as large format panels; smaller formats are cut to exact specifications</li> <li>•Locked and glued crosswise</li> <li>•Top layers showing vertical growth rings, no knotholes</li> <li>•Seamlessly glued intermediate layer ensures that the longitudinal edges do not tear off</li> <li>•Resistant melamine coating</li> <li>•Water repellent edge seal</li> </ul>																
<b>Formats</b>	2000 x 503 x 21 2000 x 503 x 27 2500 x 500 x 21 2500 x 500 x 27 1970 x 503 x 27 1000 x 503 x 27 1330 x 503 x 27																
<b>Thickness</b>	21 y 27 mm																
<b>Surface quality</b>	<ul style="list-style-type: none"> <li>•Perfectly smooth surface</li> <li>•Resistant yellow-coloured melamine coating of approximately 130 g/m<sup>2</sup></li> </ul>																
<b>Edge seal</b>	PU water repellent edge seal, yellow																
<b>Dimensional tolerances</b>	<table border="1"> <tr> <td>Thickness</td> <td>21 &amp; 27 mm</td> <td>± 1 mm</td> </tr> <tr> <td>Widths</td> <td>50 &lt; 200 cm</td> <td>± 1 mm</td> </tr> <tr> <td>Lengths</td> <td>100 &lt; 250 cm</td> <td>± 1 mm</td> </tr> <tr> <td>Longitudinal curvature</td> <td>100 ≤ 300 cm</td> <td>± 1 mm</td> </tr> <tr> <td></td> <td>301 ≤ 600 cm</td> <td>± 1.5 mm</td> </tr> </table> <p>According to Austrian standard B 3023</p>		Thickness	21 & 27 mm	± 1 mm	Widths	50 < 200 cm	± 1 mm	Lengths	100 < 250 cm	± 1 mm	Longitudinal curvature	100 ≤ 300 cm	± 1 mm		301 ≤ 600 cm	± 1.5 mm
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▲ 3-layer board Trimax in RAPID horizontal formwork ▲



## ▶ Phenolic Plywood

### ■ Product description

Plywood made of spruce and /or birch veneers, is coated with a **phenolic film resistant to wear** and to corrosion/the effect of chemicals. Each stage of manufacture conforms to **strict quality standards**. In fact, the gluing process of plies complies with standard BFU 100, EN 314-2 / class 3, exterior.

The phenolic plywood used in an appropriate way by following ULMA instructions can be repeatedly used with uniform result.

#### Product certification:

· **FSC®**: The material used for this product has been responsibly sourced.



▲ Phenolic plywood as shuttering face in ENKOFORM H-120 formwork of a viaduct under construction

### ▶ BIRCH PLYWOOD

BIRCH plywood is used for wall and slab surfaces that require a perfect concrete finishing, flat and without textures. Birch plywood with sealed edges retains all the properties regarding wear due to its phenolic film coating of 120 g/m<sup>2</sup> or 220 g/m<sup>2</sup>.



THICKNESS	No. of LAYERS
9 mm	7 glued layers
12 mm	9 glued layers
15 mm	11 glued layers
18 mm	13 glued layers
21 mm	15 glued layers

**Density:** 680 kg/m<sup>3</sup>

**Application:** wall and slab formwork

**Number of uses:** 20-80\*



\* The number of uses is a reference value and non-binding. Variable value depending on the conditions of use and treatment of the material.

## ✦ BETO PLYWOOD

The arrangement of plies, outside birch and inside alternating layers of birch and spruce provide durability and resistance to the board. Plywood with all edges sealed and coated on both sides with a smooth and wear resistant phenolic film of 120 g/m<sup>2</sup>.

THICKNESS	No. of LAYERS
18 mm	9 glued layers
21 mm	11 glued layers

**Density:** 570 kg/m<sup>3</sup>

**Application:** wall and slab formwork, for flat and smooth concrete finishing

**Number of uses:** 15-30\*



▲ High-quality finish of fair-faced concrete walls with phenolic plywood in ENKOFORM V-100 vertical formwork

\* The number of uses is a reference value and non-binding. Variable value depending on the conditions of use and treatment of the material.



▲ Assembly of Table VR horizontal formwork with phenolic plywood and VM-20 timber beams

⚠ Do not leave objects fall on, nor jump on the formwork panels.

## ▶ VM-20 Timber Beams

### ■ Product description

The design and the material used in the manufacture of the VM-20 Timber Beam guarantee a durable product, excellent as structural element for formwork.

The double T-section with a height of 200 mm and a width of 80 mm **resists strong impacts** due to protective plastic caps at the ends.

- ▶ There is a **wide range of lengths** available which allows of choosing the most appropriate in each case.
- ▶ Each beam is marked with the date of manufacture and length for traceability and identification.
- ▶ **Certified Product** that ensures quality.
- ▶ Scope of application: horizontal and vertical formwork, bridge and tunnel formwork, working platforms.

#### Product certifications:

· **Certified in accordance with European standard EN 13377** for prefabricated wooden beams for formwork.

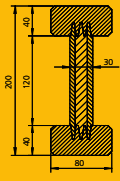
· **PEFC** : Chain of custody.



▲ VM-20 beams in ENKOFORM V-100 vertical formwork ▲



## Technical specifications

<b>Product</b>	Formwork timber beams																												
<b>Wood type</b>	Spruce/fir																												
<b>Wood moisture</b>	12% ± 3% at the time of delivery																												
<b>Gluing</b>	According to Austrian standard B 3023 (AW 100)																												
<b>Weight</b>	4.6 kg/m																												
<b>Bonding</b>	Melamine resin-based adhesive Type I acc. to EN 301 approved for gluing load-bearing timber components.																												
<b>Flange</b>	Made of carefully selected S 10 spruce wood according to DIN 4074 Solid wood of 80 x 40 mm Finger-jointing of flanges according to DIN 68140-1 Planed and chamfered to approx. 0.4 mm																												
<b>Web</b>	3-ply solid wood panel																												
<b>Design</b>	The beam design complies with the criteria of the Z-9.1-146 Certificate in conjunction with DIN 1052 or Eurocode 5 and EN 12812																												
<b>Surface protection</b>	The complete beam is waterproofed using a water-repellent colour glaze																												
<b>Supports</b>	Thanks to the 3-ply solid wood webs, VM-20 beams can be cut into and loaded along its entire length																												
<b>Dimensional tolerances</b>	 <table border="1"> <thead> <tr> <th>Dimensions<sup>1</sup></th> <th>VM-20</th> <th>Tolerances<sup>2</sup></th> </tr> </thead> <tbody> <tr> <td>Beam height</td> <td>200 mm</td> <td>± 2.0 mm</td> </tr> <tr> <td>Flange Height</td> <td>40 mm</td> <td>- 1.5 %</td> </tr> <tr> <td>Flange width</td> <td>80 mm</td> <td>- 1.5 %</td> </tr> <tr> <td>Web thickness</td> <td>26.8 mm</td> <td>± 0.5 mm</td> </tr> </tbody> </table> <p><sup>1</sup> These values apply at a wood moisture content of 12 %. <sup>2</sup> According to technical approval certificate Z-9.1-146</p>		Dimensions <sup>1</sup>	VM-20	Tolerances <sup>2</sup>	Beam height	200 mm	± 2.0 mm	Flange Height	40 mm	- 1.5 %	Flange width	80 mm	- 1.5 %	Web thickness	26.8 mm	± 0.5 mm												
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<b>Standard lengths</b>	1.45 / 1.90 / 2.15 / 2.45 / 2.65 / 2.90 / 3.30 / 3.60 / 3.90 / 4.50 / 4.90 / 5.90 m / max. length 10 m																												
<b>Packaging</b>	The packages are delivered suitable for the construction site and protected by integrated supporting timber.																												



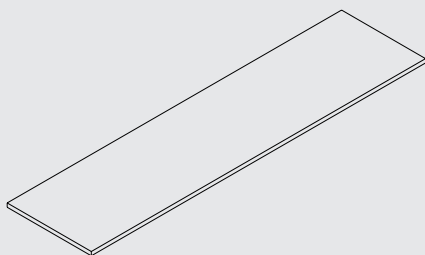
▲ VM-20 beams in ENKOFLEX horizontal formwork



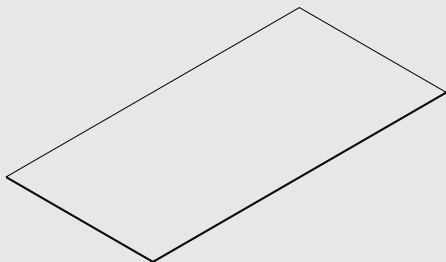
▲ VM-20 beams in Table VR horizontal formwork and for working platforms on climbing brackets

## ▶ System components and accessories

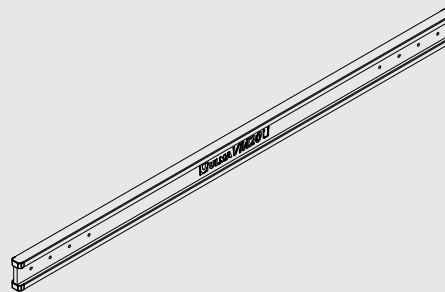
	Weight (kg)	Item no.
<b>WOOD PANELS</b>		
3 LAYER PLYWOOD 2000x503x21	11.4	7251131
3 LAYER PLYWOOD 2000x503x27	15	7251132
3 LAYER PLYWOOD 2500x500x21	14.7	2211029
3 LAYER PLYWOOD 2500x500x27	18.9	7251136
3 LAYER PLYWOOD 1970x503x27	13.4	1860650
3 LAYER PLYWOOD 1000x503x27	7.2	7251130
3 LAYER PLYWOOD 1330x503x27	9.6	1860512



<b>PLYWOOD</b>		
PLYWOOD 1.25x2.5x0.009 BIRCH	19.1	1940157
PLYWOOD 1.25x2.5x0.012 BIRCH	25.5	1940161
PLYWOOD 1.25x2.5x0.018 BIRCH	38.2	1940155
PLYWOOD 1.25x2.5x0.021 BIRCH	44.6	1940151
PLYWOOD 1.25x2.5x0.018 BETO	34.9	1940198
PLYWOOD 1.25x2.5x0.021 BETO	40.7	1940166



	Weight (kg)	Item no.
<b>TIMBER BEAMS</b>		
BEAM VM 20/1.45	7.25	1940191
BEAM VM 20/1.9	9.5	1940172
BEAM VM 20/2.15	10.75	1940197
BEAM VM 20/2.45	12.25	1950129
BEAM VM 20/2.65	13.25	1940196
BEAM VM 20/2.9	14.5	1940144
BEAM VM 20/3.3	16.5	1950130
BEAM VM 20/3.6	18	1940146
BEAM VM 20/3.9	19.5	1950112
BEAM VM 20/4.5	22.5	1940178
BEAM VM 20/4.9	24.5	1950113
BEAM VM 20/5.9	29.5	1940149



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