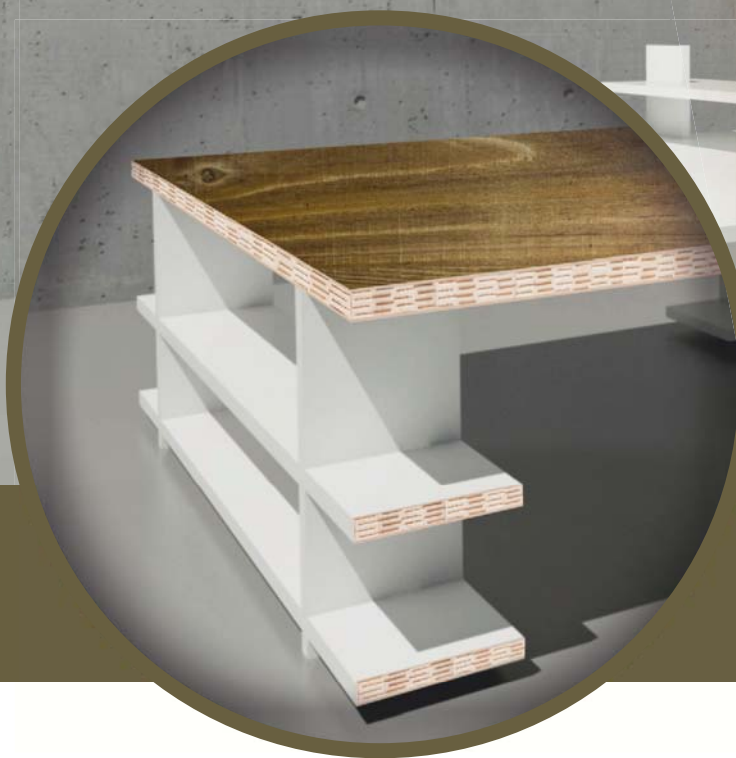


MORE THAN WOOD

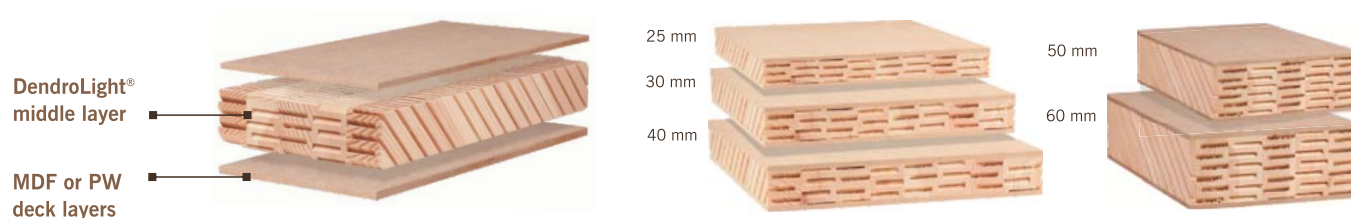


DendroLight®
3 - LAYER PANEL



 **dendro**®
LATVIJA | LIGHT

PRODUCT



DendroLight® 3-layer panel is a lightweight solid wood panel with unique DendroLight® middle layer (ML) sandwiched between two deck layers. The key feature of the panel lies in the manufacturing process of the middle layer that secures reduced weight, extra homogeneous panel dimensions and superior strength.

DendroLight® 3-layer panels are available with plywood and MDF deck layers and are widely applied in furniture and interior design industries.

General technical data

Standard formats (mm)

Length	4080	2850	2080		2020
Width	2080	1220	2020	1000	1020
	1020	860	1350	800	
			1220	660	
				550	

						MIN	MAX
						formats	
Deck layer (DL)	MDF		PW				
DL thickness	4	6	8				
Total panel thickness	25	30	40	50	60	20	80

MDF middle density fiber board
PW plywood (Birch BB)

Main product advantages

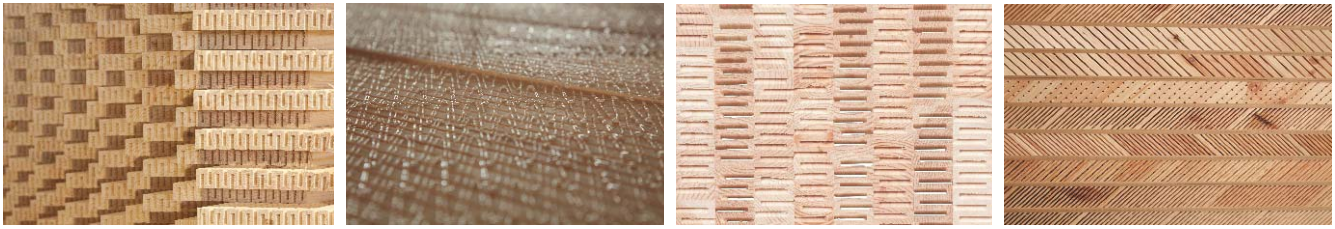
■ Reduced weight	360 - 477 kg/m ³ , even with such dense deck layers as HDF
■ Low swelling characteristics	down to 0,5% depending on thickness and type of deck layer
■ High and homogeneous surface stability	very important for panels with smooth glossy surfaces like HPL etc.
■ No internal tensions	only those created by decks
■ High internal bound	0,44 N/mm ²
■ Good screw hold characteristics	for surface 760-950 N/mm ² side (raw) - 530 N/mm ²
■ Comprehensive strength	2 N/mm ²
■ Cost effective logistics and storage	due to the reduced material weight
■ Easy processing	conventional tools applicable

DendroLight® material characteristics

Test type	3-layer panel		ML
	25 mm	60 mm	52 mm
Strength acc. to EN 310 (N/mm ²)	17,0 (18,8)	9,5 (8,7)	1,9
E-module acc. to EN 310 (N/mm ²)	2290 (2390)	1240 (1370)	131
Swelling acc. to EN 317 (24h in water, %)	8,2	3,6	0,5
Internal bound acc. to EN 319 (N/mm ²)	0,48	0,44	-

Tests of DendroLight® 3-layer panels and middle layer material (ML) were carried out in cooperation with "Forest and Wood Products Research and Development Institute".

For additional information contact your local DendroLight® area manager or distributor listed on our official web site
www.dendrolight-latvia.com



DendroLight® middle layer technology

DendroLight® middle layer material is made of unique spruce, pine or aspen tree profiles, which are glued together in perpendicular angles forming DendroLight® middle layer block, which is then band sawed into middle layer sheets.

The unique DendroLight® profiling technology reduces weight of a solid wood by 40% reaching as low as 250 kg/m³ and minimizes internal tensions of a wood.

In the gluing process PVAc (D3/D4) or EPI is used, with total amount of glue in the material not exceeding 5%. Therefore DendroLight® middle layer material is highly natural product at the same time providing good sustainability to external environment.

The unique DendroLight® glueing, pressing and sawing processes grant extra stability, homogeneity and rigid dimensions to the material. These qualities are then complemented with extra strength in the process of material decking.

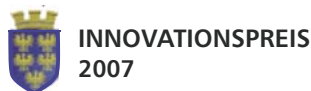
DendroLight® middle layer is coated from both sides with deck layers of plywood, MDF, HDF or any other type of plate material required, providing wide range of quality DendroLight® panels in various thicknesses and sizes.



PATENT & AWARDS

Dendrolight Latvija Ltd. is the first and the only licensed DendroLight® material manufacturer in the world.

The material has won the following awards:



DR WOLFGANG
HOUSKA
PREIS 2007

Let innovative technologies enrich your life with the best qualities of wood.

* The award was granted to TEAM7 Natürlich Wohnen GmbH product 3-Layer laminate with DendroLight middle layer

PROCESSING

Processing



There is no need for special equipment to process DendroLight® 3-layer panels. They are as easy to process as plywood, MDF or HDF.

Cutting, routing, drilling and sanding can be performed using traditional tools on DendroLight® 3-layer panels. Surface routing of the panel edges must be done with suitable routing tools. Edge gluing can be best performed with PUR, hot melt or PVAc glue.

Veneering & mounting

Veneering or laminating of DendroLight® 3-layer panels is possible with all conventional bonding systems. Pressing guidelines differ, according to the glue that is used to fix deck layers:

GLUE TYPE used in panel processing	PVAc	EPI
MAX pressure t°	80°	120°
MAX pressure	4 kg / cm²	4 kg / cm²

DendroLight® 3-layer panels can be mounted with average screws and they show high screw hold characteristics:

Drafting values for screws (4 mm Ø, 30 mm deep)	
On a surface	800 N average
On a side	600 N average

Transportation and storage

Transportation and storage of DendroLight® panels always must be done with respective care. Always carefully inspect incoming deliveries and use appropriate unloading equipment (fork lifts or other).

DendroLight® 3-layer panels must be carefully covered to avoid soiling and soaking during transportation, storage and processing.

Recommended storage temperature for the panels is **18-22°C**, with **60-65%** of relative humidity.



DendroLight® 3-layer panels must be stored on leveled ground on wooden supports or pallets with frequency that does not allow panel bending. Always use cover sheets while storing the panels in warehouse. If several panels are placed on top of each other, wooden supports must form a vertical line.

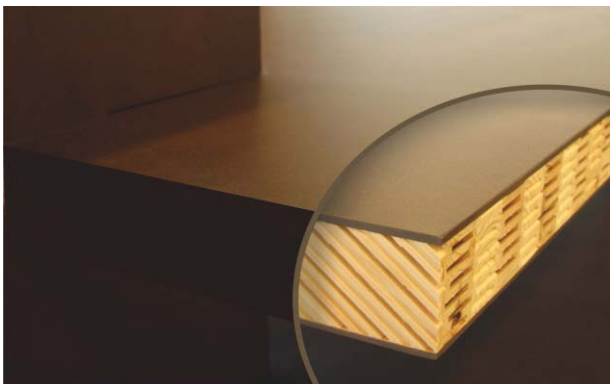
If material is not stored in recommended conditions sufficient acclimatization period is required.

For additional information contact your local DendroLight® area manager or distributor listed on our official web site www.dendrolight-latvia.com

Furniture

DendroLight® 3-layer panel is a perfect choice for building good furniture and wide range of beautiful interior design elements.

Due to its lightness, strength and homogeneity the panel is especially well suited for work surfaces, modular kitchen cabinets and shelving systems so strong that they can be used as bearing constructions. The panel can be veneered with all kinds of deck layers allowing unlimited design options.



Interiors & light constructions



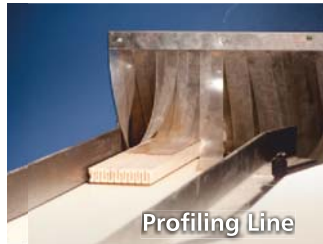
Dendrolight Latvija stand design for LiGNA 2011

THE FACTORY

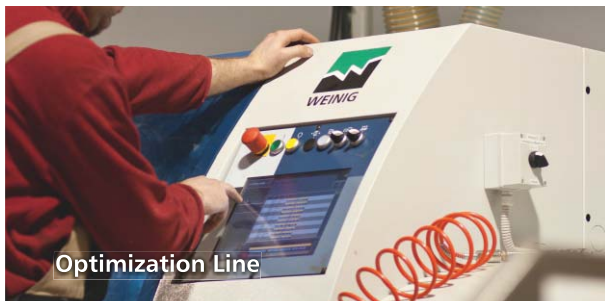
Hi tech of wood processing

Innovative approach to wood engineering and continuous product research secures the most advanced manufacturing process of the DendroLight® material and top quality production standards.

DendroLight® is manufactured on the leading wood processing equipment from **WEING** combined with Austrian built machinery developed by pioneers and experts of the material **DendroSolutions GmbH**.



Profiling Line



Optimization Line



DendroLight® Press



Band Saw & Calibration Line



LIVING INNOVATIONS

DENDRO
Solutions GmbH

Autonomic energy



Wood chip containers



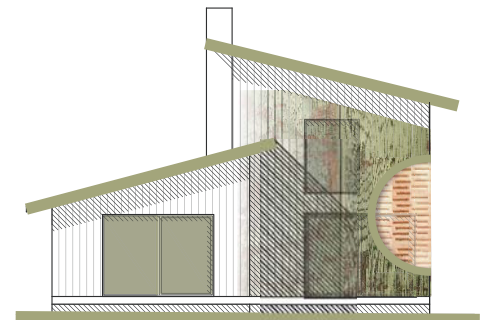
Plant heating system



Dryer

Development

Current annual production capacity of the DendroLight Latvija plant is 90 000 m². The next phase of expansion is being carried out by constructing and equipping additional 8000 m² of manufacturing area for further DendroLight® product developments, advancing in greater variation of 3-layer and door panel sizes, wider spectrum of deck materials and DendroLight® building constructions concept.



DENDROLIGHT LATVIJA



Dendrolight Latvija

Trustworthy partnership

Dendrolight Latvija Ltd. is part of privately owned Group of Latvian enterprises that occupies more than 12 000 m² of production area and has been successfully operating in European markets for more than 20 years.



www.dendrolight.lv

- DendroLight® Middle Layer
- DendroLight® 3-Layer Panel
- DendroLight® Door Blank
- DendroLight® Building Block
- DendroLight® Acoustic Panel



www.arbo.lv

- Wooden Windows
- Doors and Facades
- Sliding Systems
- Carpentry and Furniture
- Modular Houses
- Construction



www.ekomajas.lv

- Insulating Glass Production

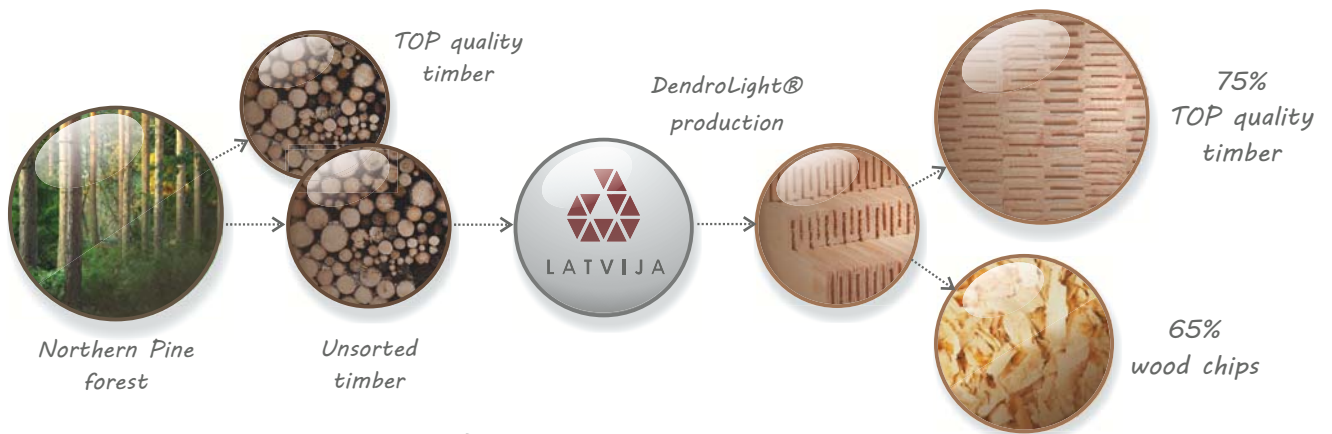


ARBO & Ekomajas

Convenient logistics



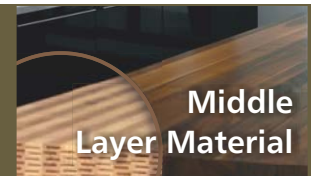
Dendrolight Latvija plant is situated in Ventspils, Latvia, which is one of the main transit centers in the Eastern Europe, providing convenient sea, rail and road logistics.



1 = 1,4 with DendroLight[®]

Taking ECO responsibility to another level:

- FSC Certificate
- CO₂ neutral (++)
- Autonomic heating system powered by wood chips
- Ultra energy-saving aspiration system
- Environment friendly products
- We process northern pine right where it grows
- We conserve natural resources by making more out of less



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