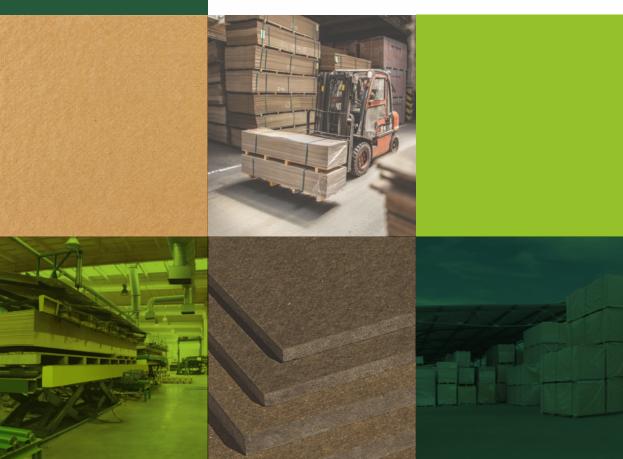


MANUFACTURER
AND DISTRIBUTOR
OF FIBERBOARDS







## FIBRIS S.A.

We are **the only Polish manufacturer**\* of fiberboard, which we produce by wet method. Our company was established in 1959 as Zakłady Płyt Pilśniowych in Przemysl, so we have been on the market for more than half a century. Over the years we have been developing our product, our manufacturing process, and our internal structures. It was especially important for us in 2004 when we became FIBRIS S.A. and our products were certified according to CE standards. Our experience and innovative technological solutions place us very high in the ranking of fiberboard manufacturers worldwide. Currently, we produce softboarads and hardboards on four production lines, and also distribute other wood-based products. In 2018/2019, a further production line will be developed as part of further development, which will increase the processing capacity for softboards.

\* one hundred percent Polish equity







# **QUALITY**

From the very beginning, we have focused on the efficient production of the highest quality and first class products. Thanks to the commitment and experience of our employees, we are able to deliver this product to our customers. Our quality is confirmed by the ISO certificate 9001-2008 and FSC certification for the years 2013-2018, which certifies that the raw material used by us for production comes from a legitimate source.

## PRODUCTION

We have been producing hardboard and porous boards for over half a century. Our boards are made using the wet method and our products are produced on four production lines. We specialize in the production of porous panels (e.g. Fibro Natur Standard, Thermo, WR, Wall, Izopanel, Eco-Bit). These boards have many uses, but they are most commonly used in all construction industries. We also manufacture hardboards (including varnished, perforated, oiled) that are used in the furniture, packaging and steel industries. Our next product is decorative colored wood chips, which will beautify any garden, alley or flowerbed.

## MODERNITY

Investing in new technologies and technical solutions makes it possible for us to quickly adapt to the current market requirements, and by investing and modernizing our production, we improve the quality of our products. Our activities are aimed at producing the highest quality products that meet the expectations of the most demanding customers.

## **ECOLOGY AND NATURE**

We attach great importance to the nature that surrounds us, and as a socially responsible company we do not forget about the environment. We have a number of investment projects that make the production process in no way endangering nature. It is all the more important to us because we use only natural resources, so we want to give nature what we get from it. Our products are friendly both to people and the surrounding nature, which is confirmed by certificates and hygienic approvals.

# **CAPACITY AND EMPLOYMENT**

Almost 400 employees produce our product on 4 production lines. We have 3 sets of hard hardboards with a capacity of about 75,000 tons / year and 1 series of softboards with a processing capacity of about 28,000 tons / year.







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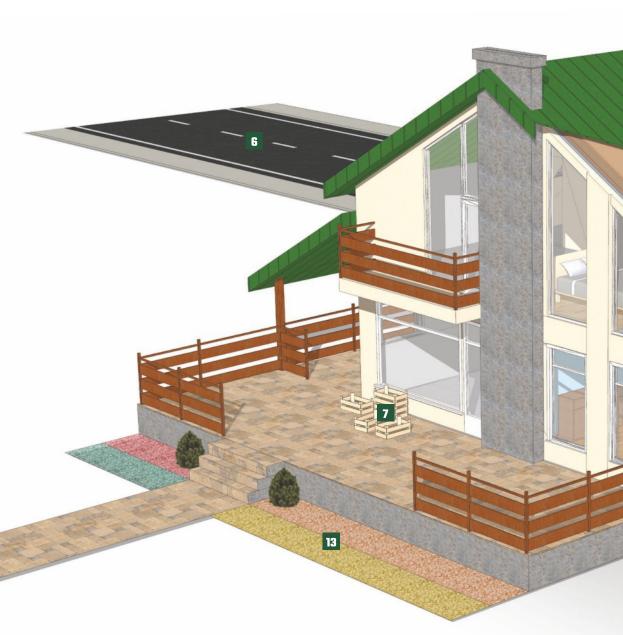
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## **STANDARD**

Softboard Fibro Natur Standard is a general purpose board.

Is widely used mainly in building and packaging industries, as well as among producers of educational and office aids. Due to its technical parameters, insulation properties and contents of organic constituents, it becomes more and more popular among people who value high quality and environmental-friendly products.

- universal application
- very good thermal and acoustic insulation
- ease of machining
- natural constituents
- known and popular on the market over many years

The quality of the produced board is monitored by factory production control. Type tests are performed in cooperation with MFPA LEIPZIG.

#### STANDARDS:

SB type, manufactured in accordance with PN-EN 13 986 and PN-EN 622-1, 622-4

#### STANDARD DIMENSIONS:

1200/1220 x 1830/2440/2500/2700/2750/3050 mm

#### OFFERED THICKNESSES:

6,0; 7,0; 8,0; 9,5; 12,0; 15,0; 19,0; 20; 25 mm



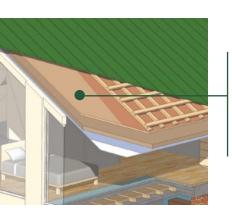
### Physico-mechanical properties of boards

Parameter:	Value:
Density [kg/m3]	> 250
Declared thermal conductivity λD [W/mK]	0,050
Steam diffusion resistance factor µ	Dry conditions = 10 Wet conditions = 5
Specific thermal volume c [J/kg x K]	2100
Swelling after 2 h of immersion in water [%]	≤ 10
Static bending strength [N/mm2] (*)	> 1,0
Reaction to fire according to PN-EN 13 501-1	E
Sound absorption coefficient: frequency of 250 – 500 Hz / 1000 – 2000 Hz	0,10/0,30
Thickness tolerance [mm]: ≤ 10 mm/ > 10 mm do 19 mm/> 19 mm	± 0,7/ ± 1,2/ ± 1,8
Tolerance of length / width / squareness / straightness [mm/m]	± 2,0/ ± 2,0 ± 2,0/ ± 1,5

(\*) - Depending on the board thickness







Fibro Natur STANDARD
It is excellent as mason as thermal insulation of roof.



No	Thickness [mm]	Width [mm]	Length [mm]	Pieces / pallet	m2 / pallet	pallet / semi-trailer	Pieces / semi-trailer	m2 / semi-trailer	m3 / semi-trailer
1	6,0	1200	2500	180	540,00	20	3600	10800,00	64,80
2	7,0	1200	2500	150	450,00	20	3000	9000,00	63,00
3	8,0	1200	2500	130	390,00	20	2600	7800,00	62,40
4	9,0	1200	2500	110	330,00	20	2200	6600,00	59,40
5	10,0	1200	2500	110	330,00	20	2200	6600,00	66,00
6	12,0	1220	2440	100	297,70	22	2200	6548,96	78,59
7	15,0	1200	2500	70	210,00	20	1400	4200,00	63,00
8	16,0	1200	2500	72	216,00	20	1440	4320,00	69,12
9	19,0	1200	2500	60	180,00	20	1200	3600,00	68,40
10	20,0	1200	2500	56	168,00	20	1120	3360,00	67,20
11	25,0	1200	2500	45	135,00	20	900	2700,00	67,50













## THERMO

Fiberboard Fibro Thermo Natur is a board designed for thermal and acoustic insulation of buildings.

Due to the excellent performance of thermal insulation it is an ideal material for insulation of walls and roofs of buildings. Fibro Natur Thermo board provides excellent protection against heat in summer and heat loss in winter. Due to the use of natural components, the board regulates the microclimate in isolated rooms and provides a high comfort. The offered formats and ease of machining make the board ideal for both, new insulations and refurbished buildings.

- excellent thermal insulation
- excellent sound insulation
- easy and simple installation
- natural constituents
- · high comfort of use of insulated rooms

The quality of the produced board is monitored by factory production control. Type tests are performed in cooperation with MFPA LEIPZIG.

#### STANDARDS:

Produced according to PN-EN 13171

#### MARKING:

WF-EN 13171 - T4 - DS. (70,-)2 - CS (10/Y) 40 - TR 2,5 - WS 2,0 - MU 5 - AFr 100

#### STANDARD DIMENSIONS:

1220/1200 x 600/ 800/ 2440/ 2500 mm

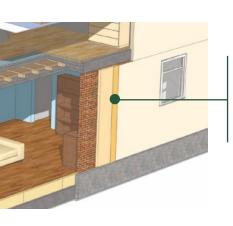
#### OFFERED THICKNESSES:

20; 30; 40; 60; 80; 100; 120 mm

Powership		Va	alue for thi	ckness [mr	n]:		
Parameter.	20,0	40,0	60,0	80,0	100,0	120,0	
Density [kg/m3]			170	± 20			
Declared thermal conductivity λD [W/mK]		0,0400					
Determined thermal conductivity λmean [W/mK]	0,0391	0,0385	0,0387	0,0389	0,0389 0,0389 0,03		
Declared thermal resistance RD [m2K/W]	0,4878	0,9756	1,4286	1,9048	2,3809	2,8571	
Determined thermal resistance Rmean [m2K/W]	0,5115	1,0389	1,5504	2,0566	2,5707	3,0848	
Steam diffusion resistance factor µ				tions = 10 litions = 5	,		
Specific heat capacity c [J/kg x K]			21	00			
Absorbability at short-period water immersion according to PN-EN 1609 [kg/m2]			≤ :	2,0			
Compression strength [kPa]			>-	40			
Airflow resistance [kPa * s / m3]			> ]	00			
Reaction to fire according to PN-EN 13 501-1				E			
Sound absorption coefficient: frequency of 250 – 500 Hz / 1000 – 2000 Hz			0,10,	0,30			
Thickness tolerance:			- 1,0:	+ 3,0			
Tolerance of length / width / squareness / flatness[mm]:			± 2,0/± 1,0/	± 5,0/ < 6,0	)		
Hygiene class - the emission of formaldehyde			clas	s E1			







Fibro Natur THERMO It checks for wall insulation.



No	Thickness [mm]	Width [mm]	Length [mm]	Pieces / pallet	m2 / pallet	pallet / semi-trailer	Pieces / semi-trailer	m2 / semi-trailer	m3 / semi-trailer
1	20,0	600	1200	116	83,52	44	5104	3674,88	73,50
2	40,0	600	1200	56	40,32	44	2464	1774,08	70,96
3	60,0	600	1200	38	27,36	44	1672	1203,84	72,23
4	80,0	600	1200	28	20,16	44	1232	887,04	70,96
5	100,0	600	1200	22	15,84	44	968	696,96	69,69
6	120,0	600	1200	20	14,40	44	880	633,60	76,03
7	20,0	800	1200	58	55,68	66	3828	3674,88	73,50
8	40,0	800	1200	28	26,88	66	1848	1774,08	70,96
9	60,0	800	1200	19	18,24	66	1254	1203,84	72,23
10	80,0	800	1200	14	13,44	66	924	887,04	70,96
11	100,0	800	1200	11	10,56	66	726	696,96	69,69
12	120,0	800	1200	10	9,60	66	660	633,60	76,03













## WR

Fibro Natur WR fiberboard is perfect as a material constituting the last component of the thermal insulation of roofs.

Hydrophobic protection makes the board a water-resistant material, which provides protection for the main insulating materials. Using a special tongue and groove system ensures that the board is sealed, thus preventing moisture penetration into the building interior.

- excellent protection of roof insulation against rain and snow
- very good sound insulation
- special cutting to improve tightness of the construction
- quick installation
- environment-friendly product

The quality of the produced board is monitored by factory production control. Type tests are performed in cooperation with MFPA LEIPZIG.

#### STANDARDS:

Produced according to PN-EN 13171

#### MARKING:

WF - EN 13 171 - T4 - DS (70,-)2 - CS (10\Y)100 - TR 30 - WS 1,0 - MU 5 - AFr 100

#### STANDARD DIMENSIONS

Edge finish - tongue and groove:

580 x 2500 mm

#### **OFFERED THICKNESSES:**

18,0; 22,0; 35,0; 52,0;60,0 mm

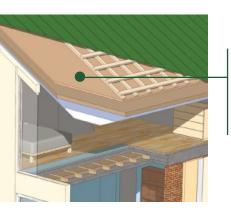
#### Physico-mechanical properties of boards

Parameter.	Value:
Density [kg/m3]	270 ± 20
Declared thermal conductivity λD [W/mK] Determined thermal conductivity λmean [W/mK]	0,0500 0,0474 (*)
Steam diffusion resistance factor µ	Dry conditions = 10 Wet conditions = 5
Specific heat capacity c [J/kg x K]	2100
Absorption at short-period water immersion according to PN-EN 1609 [kg/m2]	≤ 1,0
Compression strength [kPa] wg normy PN-EN 826	> 250
Tensile strength [kPa] wg normy PN-EN 1607	> 30
Airflow resistance [kPa * s / m3]	> 100
Reaction to fire according to PN-EN 13 501-1	E
Sound absorption coefficient: frequency of 250 – 500 Hz / 1000 – 2000 Hz	0,10/0,30
Thickness tolerance [mm]:	- 1,0: + 3,0
Tolerance of length / width /squareness / flatness [mm]	± 2,0/ ± 1,0/ ± 5,0/ < 6,0

(\*) - Depending on the board thickness







Fibro Natur WR
prevents the penetration
of moisture in the roof
structure.



No	Thickness [mm]	Width [mm]	Length [mm]	Pieces / pallet	m2 / pallet	pallet / semi-trailer	Pieces / semi-trailer	m2 / semi-trailer	m3 / semi-trailer
1	18,0	580	2500	120	174	20	2400	3480	62,64
2	22,0	580	2500	100	145	20	2000	2900	63,80
3	35,0	580	2500	60	87	20	1200	1740	60,90
4	52,0	580	2500	40	58	20	800	1160	60,32
5	60,0	580	2500	36	52,2	20	720	1044	62,64













## WALL

Fibro Wall Natur fiberboard is designed for thermal insulation of walls.

The combination of high performance of the board insulation with a hydrophobic protection makes that the board is rated in the premium class of external insulation materials. Since the board is secured hydrophobically (water resistant), it is ideal for thermal insulation of walls under the plaster. Depending on requirements, the board is available with a simple or tongue and groove finish.

- excellent thermal insulation.
- hydrophobic protection (water resistant),
- ability to match formats,
- windproof barrier,
- adjusts the microclimate in rooms.

The quality of the produced board is monitored by factory production control. Type tests are performed in cooperation with MFPA LEIPZIG.

#### STANDARDS:

Produced according to PN EN 13 171

#### MARKING:

WF - EN 13171 - T4 - DS. (70,-)2 - CS (10/Y) 40 - TR 2,5 - WS 1,0 - MU 5 - AFr 100

#### STANDARD DIMENSIONS:

#### Edge finish: tongue and groove

Net dimensions: 600 x 1200/ 2500 mm; gross dimensions: 610 x 1210/ 2510 mm

Thicknesses: 40, 60 mm

Edge finish: dull

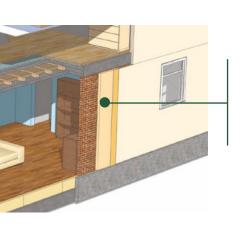
Dimensions 600 x 800 / 1200 mm, 1220 x 2440 mm, 1200 x 2500 mm **Thicknesses:** 20, 40, 60, 80, 100, 120 mm

Davanastan		Va	lue for thi	ckness (mi	m]:		
Parameter:	20,0	40,0	60,0	80,0	100,0	120,0	
Density [kg/ m3]			170	± 20			
Declared thermal conductivity λD [W/ m x K]			0,0	)40			
Determined thermal conductivity λmean [W/ m x K]	0,0391	0,0385	0,0387	0,0389	0,0389 0,0389 0		
Declared thermal resistance RD [m2 x K/W]	0,4878	0,9756	1,4286	1,9048	2,3809	2,8571	
Determined thermal resistance Rmean [m2 x K/ W]	0,5115	1,0389	1,5504	2,0566	2,5707	3,0848	
Steam diffusion resistance factor µ		Dry conditions = 10 Wet conditions = 5					
Specific heat capacity c [J/ kg x K]			21	00			
Absorbability at short-period water immersion according to PN-EN 1609 [kg/ m2]			≤ '	1,0			
Tensile strength [kPa] according to PN EN 1607			> :	2,5			
Compression strength [kPa] according to PN EN 826			>	40			
Airflow resistance [kPa x s/ m3]			> 1	00			
Reaction to fire according to PN-EN 13 501-1				E			
Sound absorption coefficient: frequency of 250 – 500 Hz / 1000 – 2000 Hz		0,10/ 0,30					
Thickness tolerance [mm]			- 1,0,	/ +3,0			
Tolerance of length / width / squareness / straightness [mm]:		-	± 2,0/± 1,0/	± 5,0/ < 6,	0		
Hygiene class - the emission of formaldehyde			clas	s E1			















No	Thickness [mm]	Width [mm]	Length [mm]	Pieces / pallet	m2 / pallet	pallet / semi-trailer	Pieces / semi-trailer	m2 / semi-trailer	m3 / semi-trailer
1	20,0	600	1200	116	83,52	44	5104	3674,88	73,50
2	40,0	600	1200	56	40,32	44	2464	1774,08	70,96
3	60,0	600	1200	38	27,36	44	1672	1203,84	72,23
4	80,0	600	1200	28	20,16	44	1232	887,04	70,96
5	100,0	600	1200	22	15,84	44	968	696,96	69,69
6	120,0	600	1200	20	14,40	44	880	633,60	76,03











# **IZOPANEL®**

IZOPANEL fiber is used in the floor structures as a material for thermal-acoustic insulation.

IZOPANEL board has a very good impact sound attenuation coefficient, so that it is used as an excellent acoustic insulation material in residential and public buildings. Due to its characteristics, it thermally insulates and eliminates any unevenness in the base.

- excellent sound insulation,
- excellent thermal insulation,
- eliminates base unevenness,
- ease of installation,
- ecologic materials.

The quality of the produced board is monitored by factory production control. Type tests are performed in cooperation with MFPA LEIPZIG.

#### STANDARDS:

SB type is manufactured in accordance with PN-EN 13 986 and PN-EN 622-1, 622-4, in green or natural color.

#### STANDARD DIMENSIONS:

590 x 790/850/860 mm

#### **OFFERED THICKNESSES:**

5,5; 7,0; 8,0 mm



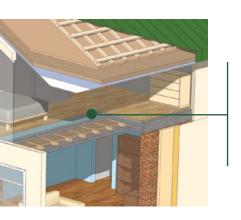
### Physico-mechanical properties of boards

Parameter:	Value:
Density [kg/m3]	> 250
Static bending strength [N/mm2]	> 1,5
Declared thermal conductivity λD [W/mK]	0,05
Impact sound attenuation coefficient ΔLW [dB] (*)	19
Swelling after 2 h of soaking in water [%]	≤ 10
Humidity [%]	4 - 9
Reaction to fire according to PN-EN 13 501-1	Е
Thickness tolerance [mm]:	± 0,3
Tolerance of length / width / Squareness / straightness [mm/m]	± 1,0/ ± 1,0 ± 1,0/ ± 0,7

(\*) With the composition from laminated floor panels based on HDF fiberboards with a thickness of 7-8 mm.







IZOPANEL works well when installing floor panels.

No	Thickness [mm]	Width [mm]	Length [mm]	Pieces / pallet	m2 / pallet	pallet / semi-trailer	Pieces / semi-trailer	m2 / semi-trailer	m3 / semi-trailer
1	5,5	590	790	750	349,57	33	24750	11535,97	63,45
2	7,0	590	790	600	279,66	33	19800	9228,78	64,60
3	8,0	590	790	510	237,71	33	16830	7844,46	62,76













ECO-BIT is a porous fibreboard which is an ecological substitute for porous bitumen. The appropriate level of hydrophobic protection makes the board suitable for outdoor use as a sleepers for highway construction, and as an insulating element for buildings. In addition, this type of board can be used under sloping facades, and thanks to its strength and thickness it is very easy to assemble.

- Ecological, environmentally friendly,
- · Small waste during machining,
- Fast and easy to work with,
- Soundproofing under asphalt screeds,
- It is recyclable,
- Increased resistance to moisture, thanks to the addition of hydrophobic agent,
- Excellent insulation properties,
  - Very high compressive strength.

The quality of the produced board is monitored by factory production control. Type tests are performed in cooperation with MFPA LEIPZIG.

#### STANDARDS:

PN-EN 13 171 and PN-EN 13 986, type SB.E.

#### DETERMINATION IN ACCORDANCE WITH THE PN-EN 13 171 STANDARD :

WF-EN 13171 - T4 - DS(70,-)2 - CS(10/Y) 250 - TR30 - WS 1.0 - MU5-AFr 100

#### THICKNESS:

10,0; 12,0; 15,0; 18,0; 19,0; 25,0 mm

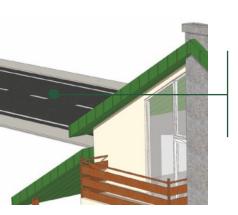
#### STANDARD DIMENSIONS:

1220/1200 x 2200/2440/2500/3050 mm

Parameter:	Value:
Density [kg/m3]:	> 270
Declared heat conduction coefficient λD [W/mK]	0,050
Water vapor diffusion coefficient µ	Dry conditions = 10 Damp conditions = 5
Proper heat capacity c [J/kg x K]	2100
Swelling after a 2h soak in water [%]	≤ 6
Static bending strength [N/mm2] ≤ 10mm /> 10 mm to <19 mm /> 19 mm	1,5/ 1,2/ 1,0
Fire reaction class according to PN-EN 13 501-1	E
Sound absorption coefficient: Frequency 250 – 500 Hz / 1000 – 2000 Hz	0,10/ 0,30
Water absorption at short-time immersion according to PN-EN 1609 [kg/m2]	≤ 1,0
Tensile strength [kPa] According to PE - EN 826	> 250
Tensile strength [kPa] According to PE-EN 826	> 30
Air flow resistance [kPa * s / m3]	>100
Thickness tolerance [mm] ≤ 10mm/ > 10 mm do < 19 mm/ > 19 mm:	± 0,7/ ± 1,2/ ± 1,8
Tolerance length / width / squareness / flatness [mm]:	± 2,0/± 1,0/ ± 2,0/ < 6,0







ECO - BIT is great for highway construction.



No	Thickness [mm]	Width [mm]	Length [mm]	Pieces / pallet	m2 / pallet	pallet / semi-trailer	Pieces / semi-trailer	m2 / semi-trailer	m3 / semi-trailer
1	10,0	1220	2440	115	342,33	20	2300	6846,64	68,46
2	12,0	1220	2440	95	282,79	20	1900	5655,92	67,87
3	15,0	1220	2440	76	226,23	20	1520	4524,73	67,87
4	18,0	1220	2440	64	190,51	20	1280	3810,30	68,58
5	19,0	1220	2440	60	178,60	20	1200	3572,16	67,87
6	25,0	1220	2440	46	136,94	20	920	2738,65	68,46











## HARDBOARD

Hardboard is the general purpose board.

Due to its properties, the board is used in various industries. Hardboards are most widely applied in the furniture, packaging, automotive and steel industry.

- universal application,
- · high strength,
- high flexibility,
- · natural constituents,
- known and popular on the market from many years.

The quality of the produced board is monitored by factory production control. Type tests are performed in cooperation with MFPA LEIPZIG.

#### STANDARDS:

HB type, manufactured in accordance with PN-EN 13 986 and PN-EN 622-1, 622-2

#### **OFFERED THICKNESSES:**

2,0; 2,4; 2,8; 3,0; 3,2; 4,0; 5,0; 6,0; 6,4; 7,0; 8,0 mm

#### STANDARD DIMENSIONS:

1220/1610 x 1830/ 2140/ 2440/ 2750/ 3050 mm



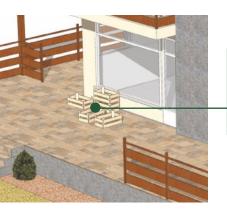
### Physico-mechanical properties of boards

	Value for	nominal thickness rai	nge [mm]:		
Parameter:	≤ 3,5	3,5 ≤ 5,5	≥ 5,5		
Density [kg/m3]	≥ 900				
Static bending strength [N/mm2]	> 30,0	> 30,0	> 25,0		
Humidity contents [%] (*)	4 < W ≤ 9				
Swelling after 24 h of soaking in water [%]	< 37,0	< 30,0	< 25,0		
Fire reaction class according to PN-EN 13 501-1		E			
Thickness tolerance [mm]	± 0,3	± 0,7			
Tensile strength [kPa] According to 1607		> 0,5			

(\*) – The required humidity level applies to plates when leaving the manufacturer's premises.







HARDBOARD is applicable in the packaging industry.



## Logistics information – packing method

No	Thickness [mm]	Width [mm]	Length [mm]	Pieces / pallet	m2 / pallet	pallet / semi-trailer	Pieces / semi-trailer	m2 / semi-trailer	m3 / semi-trailer
1	2,0	1220	2440	200	595,36	21	4200	12502,56	25,01
2	2,4	1220	2440	150	446,52	24	3600	10716,48	25,72
3	3,0	1220	2440	150	446,52	19	2850	8483,88	25,45
4	3,0	1610	2440	150	589,26	14	2100	8249,64	24,75
5	4,0	1220	2440	120	357,22	18	2160	6429,89	25,72
6	4,0	1220	2750	120	402,60	16	1920	6441,60	25,77
7	5,0	1220	2440	100	297,68	18	1800	5358,24	26,79
8	6,0	1220	2440	80	238,14	18	1440	4286,59	25,72
9	7,0	1220	2440	70	208,38	17	1190	3542,39	24,80
10	8,0	1220	2440	60	199,44	16	1072	3191,12	24,25

Other thicknesses of fiberboards on request











# PAINTED HARDBOARD

The board is designed for professional applications in the furniture industry.

- special application,
- high flexibility,
- possibility to adjust the color to customer requirements.

#### COLORS:

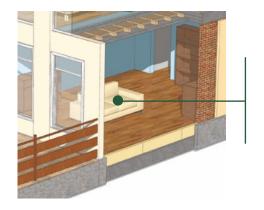
White, gray, and others depending on customer requirements.

#### **OFFERED THICKNESSES:**

2,4; 3,0 mm

#### STANDARD DIMENSIONS:

1220 x 2440/2750 mm





LACQUERED and PERFORATED HARDBOARD are used in the production of upholstered furniture.

Parameter:	Value:			
Density [kg/m3]	≥ 900			
Static bending resistance [N/mm2]	> 30			
Humidity content [%]	4 < W ≤ 9			
Swelling after 24 h of soaking in water [%] (*)	< 30			
Reaction to fire according to PN-EN 13 501-1	E			

<sup>(\*) –</sup> The required humidity level applies to plates when leaving the manufacturer's premise.

# PERFORATED HARDBOARD

The board used for specialized applications in the furniture and building industry.

- precise perforation,
- · high flexibility,
- natural constituents.



HB type, manufactured in accordance with PN-EN 13 986 and PN-622-1; 622-2

#### **PERFORATION:**

Hole diameter of 5 mm with 25 mm spacing.

#### **OFFERED THICKNESSES:**

2,4; 3,0; 5,0 mm

#### STANDARD DIMENSIONS:

1220 x 2440/2750 mm



No	Thickness [mm]	Width [mm]	Length [mm]	Pieces / pallet	m2 / pallet	pallet / semi-trailer	Pieces / semi-trailer	m2 / semi-trailer	m3 / semi-trailer
1	2,4	1220	2440	150	446,52	24	3600	10716,48	25,72
2	3,0	1220	2440	150	446,52	19	2850	8483,88	25,45
3	5,0	1220	2440	100	297,68	18	1800	5358,24	26,79











## OIL TEMPERED HARDBOARD

Oil Tempered Hardboard is a hardboard with vegetable oil. It is intended for use primarily in the construction and packaging industry and in products where increased hydrophobic resistance is required. During the manufacturing process, the oil is added into to the pulp, and then the sheets are conveyed to the pressing operation. The plate is oil-protected in its entire cross section.

- Universal use,
- · High flexibility and high strength,
- Natural ingredients,
- Possibility of refining,
- Natural adhesion properties,
- Elasticity and durability of the highest class,
- High resistance to moisture,
- Strength and elasticity,
- · Protects structures against atmospheric agents.

The quality of the produced board is monitored by factory production control. Type tests are performed in cooperation with MFPA LEIPZIG.

#### STANDARDS:

PN-EN 13 986 and PN-EN 622-1; 622-2, type HB.H

#### THICKNESS:

2,0; 2,4; 2,8; 3,0; 3,2; 4,0; 5,0; 6,0; 6,4; 7,0 mm

#### STANDARD DIMENSIONS:

1220 / 1610 x 1830 / 2140 / 2440 / 2750 / 3050 mm



### Physico-mechanical properties of boards

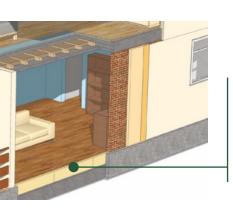
Deventer	Value for	nominal thickness rai	nge [mm]:		
Parameters:	≤ 3,5	3,5 ≤ 5,5	≥ 5,5		
Density [kg/m3]	≥ 900				
Resistance to static bending [N/mm2]	> 30,0 > 30,0 > 25,0				
Humidity [%] (*)	4 < W ≤ 9				
Swelling after 24 h soaking in water [%]	< 25,0	< 20,0	< 20,0		
Reaction to fire according to PN-EN 13 501-1		E			
Thickness tolerance [mm]	± 0,3 ± 0,5 ± 0,7				
Tensile strength [N/mm2]		> 0,5			

(\*) – The required humidity level applies to plates when leaving the manufacturer's premise.









OIL TEMPERED
it can be used as an
insulating element
of the floor.



### Logistics information – packing method

No	Thickness [mm]	Width [mm]	Length [mm]	Pieces / pallet	m2 / pallet	pallet / semi-trailer	Pieces / semi-trailer	m2 / semi-trailer	m3 / semi-trailer
1	2,0	1220	2440	200	595,36	21	4200	12502,56	25,01
2	2,4	1220	2440	150	446,52	24	3600	10716,48	25,72
3	3,0	1220	2440	150	446,52	19	2850	8483,88	25,45
4	3,0	1610	2440	150	589,26	14	2100	8249,64	24,75
5	4,0	1220	2440	120	357,22	18	2160	6429,89	25,72
6	4,0	1220	2750	120	402,60	16	1920	6441,60	25,77
7	5,0	1220	2440	100	297,68	18	1800	5358,24	26,79
8	6,0	1220	2440	80	238,14	18	1440	4286,59	25,72
9	7,0	1220	2440	70	208,38	17	1 190	3542,39	24,80

Other thicknesses of fiberboards on request











## **I-BEAMS**

The I-Beams were created from a combination of two sturdy construction timber shelves and a web of OSB slabs. Combining the highest quality materials and our long experience in wood processing has allowed us to create a wooden I-beam with high strength parameters. They are especially recommended for energy-saving buildings and passive houses, but also in more traditional construction such as: ceiling girders, roof girders (rafters), and wall posts. For the customer we make precision carpentry cuts and holes for technical installations. (We cut angles, diameters, and the position of the holes according to the wishes of the customer).

#### STANDARDS:

Manufactured according to AVCP SYSTEM 1, ETAG 011, ETA 14/0181

#### **DESIGNATION:**

Ceiling beams, roofs and pillars of DIB I-Beams type DIB walls.

- · high quality,
- strength,
- CE certificate.
- easy and fast installation,
- low heat permeability,
- stable dimensions.
- low heat transmission reduction of thermal bridges,
- possibility to make an entire house with and beams,
- excellent strength parameters.

#### STANDARD DIMENSIONS:

47x47x200; 47x47x220; 47x47x240; 47x47x250; 47x47x300; 47x47x350; 47x47x400 47x72x200; 47x72x220; 47x72x240; 47x72x250; 47x72x300; 47x72x350; 47x72x400

#### **DURABILITY STRENGTH VALUES:**

(kmodf=1.0; kmodw=1.0 i yM,f=1.3; yM,w=1.2)

CLASS: C24, C30

Parameter.	Value:
Useage Class	EN 1995
Height of the girder	200 – 500 mm
Girder length	to 16 000 mm
Shelf width	47-72 mm
Height of the shelf	47 mm
Web thickness	10 mm
Class reaction to fire	D - s2, d0
Class of formaldehyde emission, web material and shelves	E1
Conduction of heat, web material and shelves	0,13 W/(mK)





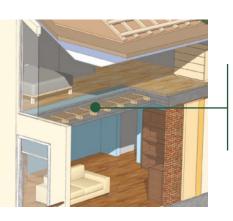












I - BEAMS is used in the construction of ceilings.



I - BEAM, Timber class C24							
Тур	EI [kNm2] EI [kNm2]	GA [kN]	M [kNm]	V [kN]			
47/200	286	1352	6,20	10,40			
47/220	363	1568	7,20	11,80			
47/240	451	1784	8,20	13,10			
47/250	499	1890	8,70	13,80			
47/300	777	2432	11,30	17,20			
47/350	1121	2972	14,00	20,60			
47/400	1535	3512	16,70	24,00			
47/450	2020	4052	19,60	26,90			
47/500	2579	4592	22,50	26,60			
72/200	442	1352	9,60	10,40			
72/220	562	1568	11,10	11,80			
72/240	697	1784	12,70	13,10			
72/250	770	1890	13,40	13,80			
72/300	1195	2432	17,40	17,20			
72/350	1719	2972	21,40	20,60			
72/400	2345	3512	25,60	24,00			
72/450	3074	4052	29,80	26,90			
72/500	3910	4592	34,10	26,60			

	I - BEAM, Timber class C30							
Тур	EI [kNm2]	GA [kN]	M [kNm]	V [kN]				
47/200	312	1352	7,80	10,40				
47/220	396	1568	9,00	11,80				
47/240	492	1784	10,30	13,10				
47/250	544	2432	10,90	13,80				
47/300	847	2432	14,10	17,20				
47/350	1223	2972	17,50	20,60				
47/400	1675	3512	20,90	24,00				
47/450	2204	4052	24,50	26,90				
47/500	2814	4592	28,10	26,60				
72/200	482	1352	12,00	10,40				
72/220	613	1568	13,90	11,80				
72/240	760	1784	15,80	13,10				
72/250	840	2432	16,80	13,80				
72/300	1304	2432	21,70	17,20				
72/350	1876	2972	26,80	20,60				
72/400	2558	3512	32,00	24,00				
72/450	3354	4052	37,30	26,90				
72/500	4266	4592	42,70	26,60				

## CHIPBOARD

Chipboard is a particle board, which is a wood-based material essential in the production of furniture. It is made from specially pressed wood chips with resins added using pressure and high temperatures. This board is available in a variety of sizes, thicknesses and parameters, and is characterized by its low surface roughness and high tensile strength. Chipboard is also used for insulating interiors, building partitions and for the production of worktops, floors, walls, and sills.

- Finishing by varnishing, laminating, gluing,
- Lining and insulating material in interiors,
- strength,
- · elasticity,
- Ease of working.

#### STANDARDS:

EN 323, EN 310, EN 319 , EN 311, EN 317, EN 312, EN 120, EN 322, EN 324-1, EN 324-0, EN 324-1, EN 324-2

#### THICKNESS:

10,0; 12,0; 15,0; 16,0; 18,0; 19,0; 22,0; 25,0; 28,0; 32,0; 36,0; 38,0 mm

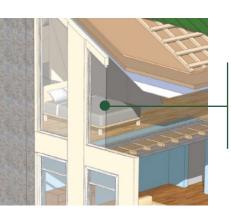
#### STANDARD DIMENSIONS:

1830x2750, 1830 x2440, 2070x2800 mm

Parameter.	IU	EN 312 Requirements, Table. 1, Table. 3 - Type P2											
Density	kg/m3	700	690	670	660	650	650	640	640	620	610	610	600
Flexural strength	N/mm2	11	11	11	11	11	11	10,5	10,5	9,5	9,5	8,5	8,5
Tensile strength	N/mm2	>0,4	>0,4	>0,35	>0,35	>0,35	>0,35	>0,3	>0,3	>0,25	>0,20	>0,20	>0,20
Tearing strength	N/mm2	>0,8											
Swelling after 24h *	%	<16	<16	<15	<15	<15	<15	<15	<15	<15	<15	<14	<14
Formaldehyde free content	mg / 100 g.s.m.	<8,0											
Hygiene class							Е	1					
Content of mineral particles	%						<(	),3					
Moisture	%						from 5	5 to 13					
Thickness tolerance	mm						(+/-	)0,3					
Length and width tolerance	mm	(+/-)5											
Deviation from the right angle	mm/m	2											
Deviation from edge straightness	mm/m						1	,5					







Chipboard is an inherent element in furniture production.



No	Thickness [mm]	Width [mm]	Length [mm]	Pieces / pallet	m2 / pallet	pallet / semi-trailer	Pieces / semi-trailer	m2 / semi-trailer	m3 / semi-trailer
1	8,0	2800	2070	54	312,98	12	648	3755,80	30,04
2	10,0	2800	2070	48	278,20	11	528	3060,28	30,60
3	12,0	2800	2070	40	231,84	11	440	2550,24	30,60
4	15,0	2800	2070	34	197,06	11	374	2167,70	32,51
5	18,0	2800	2070	28	162,29	11	308	1785,16	32,13
6	22,0	2800	2070	26	150,69	10	260	1506,96	33,15
7	25,0	2800	2070	24	139,10	10	240	1391,04	34,77
8	28,0	2800	2070	22	127,51	10	220	1275,12	35,70
9	30,0	2800	2070	20	115,92	10	200	1159,20	34,77
10	38,0	2800	2070	18	104,32	9	162	938,95	35,68











## PLYWOOD

Plywood is a wood-based product that is formed by gluing veneers, where the fibers of adjacent layers are perpendicular. Plywood is usually made of pine, spruce, beech, alder and birch. Due to the type of glue used in its production, plywood stands out as durable and waterproof (water resistance refers to the adhesive instead of the entire timber as a product, which is not resistant to water). Plywood can be easily modeled which allows for the production of shapes useful for example in furniture production. As a result, plywood is commonly used in the manufacture of home and office furniture, as well as in construction, packaging and shipbuilding industries.

#### STANDARDS:

PN-EN 635-2, PN-EN 323, PN-EN 310, PN-EN 318, PN-EN 13986, PN-EN 13501-1, PN-EN 322

#### THICKNESS:

3,0; 4,0; 5,0; 6,0; 8,0; 9,0; 10,0; 12,0; 15,0; 18,0; 21,0; 24,0; 30,0 mm

#### STANDARD DIMENSIONS:

1525x1525, 1220x2440, 1250x2500 mm

#### **AVAILABLE PLYWOOD GRADES:**

B/BB, BB/BB BB/CP, BB/C, CP/CP, CP/C, C/C

- One of the most durable wood-based materials in the world.
- waterproof,
- High durability,
- Equal properties along and across the sheet,
- · Dimensional stability,
- Supplement to the structure of the wall: as foundations, frames, lintels, window and door lintels.
- Very high quality and durability,
- Due to the large surface area, the number of mounting joints is reduced.

#### CHARACTERISTICS OF PLYWOOD GRADES:

- 1. Class B (1) uniform, free from discoloration, bright surfaces;
- 2. Class BB (2) uniform, free-discolored surfaces, with an acceptable amount of full knots;
- 3. Class CP (3) uniform, with full knots and acceptable minor cracks in the fog;
- 4. Class C (4) uniform, ground or ground surfaces with open knots and defects.

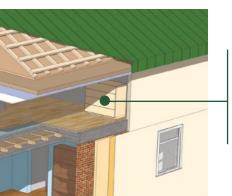
#### TYPES OF PLYWOOD DUE TO WATER:

dry-durable, waterproof

Parameter.	Value:
Humidity	4-12% (PN-EN 322)
Thickness	550-800 kg/m3 (PN-EN 323)
Flexural strength	30-100 MPa* (PN-EN 310)
Tensile strength	30-60 MPa* (PN-EN 310)
Compressive strength	25-50 MPa* (PN-EN 310)
Modulus of elasticity	3 500-10000 MPa* (PN-EN 310)
Dimensional changes depending on humidity change	to 0,5% (PN-EN 318)
Class reaction to fire	D-s2,d0 for thickness>9mm (PN-EN 13986 PN-EN 13501-1)







Plywood is often used for furniture production.



No	Thickness [mm]	Width [mm]	Length [mm]	Pieces / pallet	m2 / pallet	pallet / semi-trailer	Pieces / semi-trailer	m2 / semi-trailer	m3 / semi-trailer
1	3,0	1525	1525	130	302,33	32	4160	9674,60	29,02
2	4,0	1525	1525	100	232,56	32	3200	7442,00	29,76
3	5,0	1525	1525	80	186,05	32	2560	5953,60	29,76
4	6,0	1525	1525	65	151,16	32	2080	4837,30	29,02
5	8,0	1525	1525	50	116,28	32	1600	3721,00	29,76
6	9,0	1525	1525	45	104,65	32	1440	3348,90	30,14
7	10,0	1525	1525	40	93,02	32	1280	2976,80	29,76
8	12,0	1525	1525	33	76,74	32	1056	2455,86	29,47
9	15,0	1525	1525	27	62,79	32	864	2009,34	30,14
10	18,0	1525	1525	22	51,16	32	704	1637,24	29,47
11	21,0	1525	1525	19	44,18	32	608	1413,98	29,69
12	24,0	1525	1525	17	39,53	32	544	1265,14	30,36
13	27,0	1525	1525	15	34,88	32	480	1116,30	30,14
14	30,0	1525	1525	13	30,23	32	416	967,46	29,02











## DECORATIVE WOOD CHIPS

Decorative wood chips are an attractive mulching material for decorating and protecting soil in gardens, alleys, green areas or flower beds. They are made from coniferous trees, subjected to the process of shredding, sorting and dyeing with ecological dyes, and are weatherproof and environmentally friendly. They provide excellent protection against weeds and provide a natural way to retain moisture in the soil. They also provide excellent insulation for the soil against overheating in the summer and frost in winter.

- Decoration,
- Inhibition of weed growth,
- Protecting soil and maintaining soil moisture,
- Mulching of trees and shrubs,
- · Possibility to create colorful compositions.

#### **AVAILABLE COLOURS:**

- green
- blue
- brunette
- yellow
- orange
- red

#### **HOW TO USE AND STORE:**

Keep the wood chips in their original packaging in a dry place and out of direct sunlight. After opening the bag, the decorative wood chips show natural humidity, which affects some of the features of the product.

It is reccommended to pour the decorative chips on a dry, sunny day on a previously prepared substrate, i.e. weed free, and to mulch and expose the decorative wood chips by pouring them in a layer about 5 to 10 cm thick.

Decorative wood chips are made from materials of an organic origin (natural), and kept in closed containers may be at risk for the occurrence mould, which does not affect the performance and aesthetic qualities of the product.







# PRODUCTS ON REQUEST

At the request of our customers, fibreboard can be further processed and given an individual character. Our products have a wide range of uses, and in many cases our customers need an individualized product and have additional requirements beyond the standard range. As a result of our experience, flexibility, and individual approach to every customer we are able to deliver personalized orders and meet creative challenges.

- We have an individualized approach,
- We have a wide range of opportunities and production spectrum,
- Our machine park makes it possible to carry out custom orders.

#### ON REQUEST:

**Formatting** to non-standard sizes and shape requirements. We cut the boards to the indicated target dimensions, create curvilinear elements, circles and rings.

**Milling** with the possibility of preparing the tongue-groove in the porous fibreboard.

**Grinding** when a special surface quality is required.

**Calibrating** to maintain strict thickness tolerances.

Cutting and rounding corners on hardboard.

**Laminating** with paper, cork, foil, and felt, so that the porous fibreboard has special characteristics and aesthetics.

**Staining the boards**, the plate is given an individual character according to the colour given.











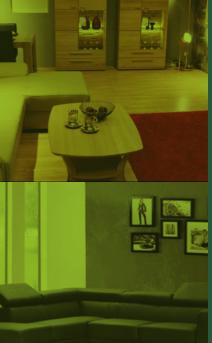














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