

CE



**Specialised producer of
Glued Laminated Timber**

Superior finish - Visual impact - Certification "CE"

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Specialised producer of **Glued Laminated Timber**

When the superior finishing, the visual impact,
the conformity and the certification "CE"
are essential requirements nothing can be left at chance.

Glued Laminated Timber certified "CE" for structural uses manufactured by AZI srl Romania has some special characteristics which recommends him to be on view to dominate the space and to achieve two very important functions in a construction:

- a structural functionality, safe and healthy, being certified products with determined resistance properties;
- an aesthetic functionality, being products with a very pleasant visual impact.

The superior properties of stability and strength which allow the use for manufacture of wooden structures at curtain facades, Wintergarden type structures, Conservatory Sunrooms and architectures with large glass surfaces.

Why AZI SRL Romania

What differentiates us from other bidders

Special visual impact and opportunities to realize superior finishes are essential characteristics of the products AZI SRL. These characteristics are obtained from certain kind of timber and technological process that incorporates specific procedures and production techniques only in areas with long tradition in woodworking as Neamt area.

The characteristics of the certified „CE” products offers to architects and to designers safe and healthy solutions for exclusive projects, for requirements of dimensional stability and superior strength class with GL 26h values.

The qualified personnel specific to the area with old traditional woodworking and educational institutions dedicated to correctly combine woodworking tradition with the requirements of standards and norms.

Raw material of high quality from the richest forest area of homogeneous zones and species recommended in standards for structural uses.

Norms and know-how for the application of a set of standards for structural uses according to EN 14080:2013 or for ambiantal uses according to EN 13307-2:2009, which are verified by independent institutes accredited by conformity assessment of certified products „CE” through the system of attestation of conformity Type 1.





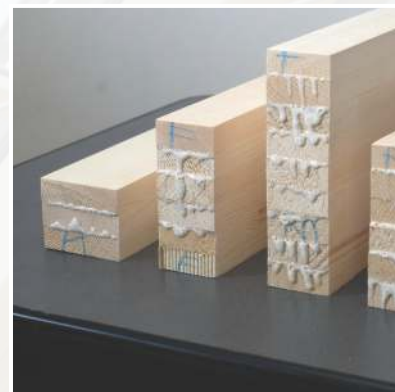
GLUED LAMINATED TIMBER – Glulam type, for constructions, special architectures and exclusive destinations

AZI srl Piatra Neamț holds certificate / mark "CE" no. 1870- CPR- 1059 according to European Standard EN 14080:2013 which regulates the performance requirements, assessment and attestation of conformity, Glued Laminated Timber type of Glulam for load-bearing structures.

The laminated profiles certified "CE", for structural uses have the following characteristics:

The strength class GL 26h according to European standard EN 14080:2013, with the following values of the resistance and stiffness, in N/mm² and the volumetric mass, in kg/m³:

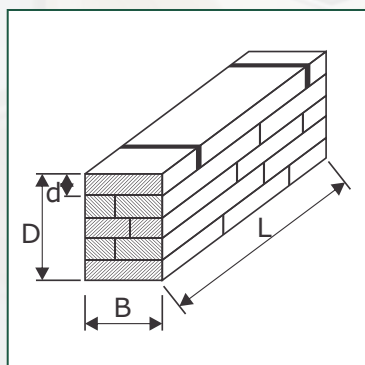
Resistance class		GL 26h
Bending strength	<i>f</i> m, g, k	26
Tension strength	<i>f</i> t, 0, g, k <i>f</i> t, 90, g, k	20,8 0,5
Compression strength	<i>f</i> c, 0, g, k <i>f</i> c, 90, g, k	26 2,5
Shear strength (shear and torsion)	<i>f</i> v, g, k	3,5
Shear – lamination strength	<i>f</i> l, g, k	1,2
Modulus of elasticity	E 0, g, mean	12100
	E 90, g, 05	10100
	E 90, g, mean	300
	E 90, g, 05	250
Shear modulus	G g, mean	650
	G g, 05	540
Rolling shear modulus ****	G l, g, mean	65
	G l, g, 05	54
Masa volumică	p g, k	405
	p g, mean	445



- The class of the formic aldehyde "E1";
- Reaction to fire "D - s2, d0";
- The durability class "4-SH-SH-S 3-4 3vx";
- Conform to European Standards EN 1995-1-2 EuroCad 5 for the designing of load-bearing structures or EN 13830-Curtain Walls;
- Advanced technological processes which allows to obtain products with superior finishes, unique visual impact and dimensional stability.



The structure of the profile may have the following dimensions in mm:



L = Length : 4000-6100 mm
 B = Width : 40-140 mm
 D = Height 80-320 mm
 d = Lamellas may have a length of 4000-6100 mm, width of 40-140 mm, joined on the length and edge on edge for the middle lamella width



At the clients request and architects recommendation it can be executed different lamellar composition or different sections.

AZI srl Romania offers the following qualities:

“FREE OF KNOTS”- Glued Laminated Timber with 20-28 mm thick lamellas

that incorporates a special manufacturing process.

- Timber logs of the same age, from a single homogenous growth area;
- Radial/semiradial cutting;
- Manual and mechanical sorting of the elements;
- Possibilities to realize superior finishes;
- Products without knots, for a special visual impact;
- High stability and resistance.



The most common dimensions are:

Dimensions (mm)		
B	D	L
60	80; 100; 120; 140; 160; 180; 200; 220	6100
80	80; 100; 120; 140; 160; 180; 200; 220	6100
100	100; 120; 140; 160; 180; 200; 220	6100



“FREE OF KNOTS”- Glued Laminated Timber with 40 mm thick lamellas

that incorporates the same special manufacturing process mentioned above for exclusive destinations and housing construction.

The most common dimensions are:

Dimensions (mm)		
B	D	L
60	80; 120; 160; 200; 240; 280; 320	6100
80	80; 120; 160; 200; 240; 280; 320	6100
100	120; 160; 200; 240; 280; 320	6100





“VISUAL QUALITY”- Glued Laminated Timber with 20-28 mm thick lamellas

which highlights the wood's natural characteristics and meets the requirements of standard EN 14080: 2013.

- Products with healthy knots that do not affect the physical, mechanical and rigidity features;
- Mechanical and manual sorting of the elements for a uniform distribution of the knots and a special visual impact;
- Thickness of the lamellas permit a high dimensional stability.

“VISUAL QUALITY”- Glued Laminated Timber with 40 mm thick lamellas

with the same characteristics and conformities described above.

The most common dimensions are:

Dimensions (mm):		
B	D	L
60	80; 120; 160; 200; 240; 280; 320	6100
80	80; 120; 160; 200; 240; 280; 320	6100
100	120; 160; 200; 240; 280; 320	6100
120	120; 160; 200; 240; 280; 320	6100
140	120; 160; 200; 240; 280; 320	6100

There are various other sections available.

The species of wood used is spruce - “whitewood” -

mentioned in the standards and norms enumerated that will ensure the safe bearing structures, visually enjoyable and opportunities to realize superior finishes.

The main features that recommend “the whitewood” are:

- Swelling - shrinkage constant and with low value;
- Small mass density compared to physical-mechanical features and superior resistance
- Straight fiber and constant annual growth;
- Annual rings fine and uniform white color, which gave the name of "whitewood" in the external market.

Silky texture that guarantees achieving superior visual effect and particular psycho-sensory effect.



Adhesive

AZI SRL Romania is using polyurethane adhesive (PUR-1) with the following characteristics:

- PUR-1 is certified “CE”, according to European standard EN 301:2006
- Does not contain formaldehyde and is recommended for safe and healthy housing;
- The adhesive applying is made with machinery and equipment specifically designed for this purpose, the ruler, evenly recommended amount in a controlled environment.

Uses

Glued Laminated Timber certified for exclusive destinations:

- Wood structures for curtain walls, wintergarden structures, conservatory, sunrooms and similar architectures which requires superior features of stability and resistance;
- Structures for lofts and partition walls with timber at sight;
- Structural joinery;
- Wooden Load - Bearing Structures for architecture and construction in aggressive climatic zones and high temperatures.



GLUED LAMINATED TIMBER AND PANELS FOR JOINERY

Glued Laminated Timber, for joinery use falls into European Standard EN13307-2:2009. The standard regulates the requirements for profiled wooden blanks for nonstructural uses, which includes the laminated products joined by gluing. Compliance with all conformities related to wood and adhesive has allowed to our company the obtaining of products which fall in all 3 classes of service from EN 13307-2:2009 and from "Rosenheim Test".

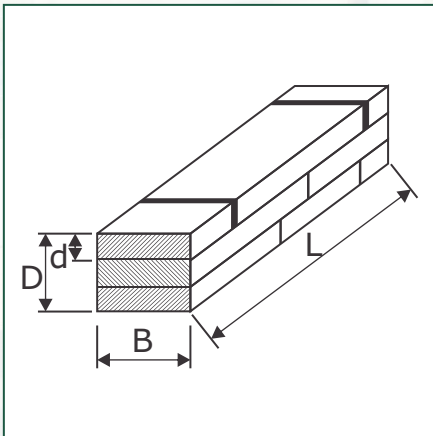
The wood used complies with the European Standards 14220:2007, EN 14221:2007 and EN 942:2007, which regulates the field of use at manufacture of joinery and ambience use in construction.

Quality

- Products without knots
- Radial and semiradial cutting
- Continuous fiber
- Finger joined lamellas (FJ)
- Final humidity of 12% + - 2% and 8% + - 2%, depending on the intended use of the product. Glued Laminated Timber for joinery is made from spruce by 2, 3 and 4 layers with 24-30 mm lamella thickness.

The adhesive is according to EN 204: 2002, Class D4: 2006 (WATT '91) and EN 14257:2006 (WATT '91) that allows a tensile adhesive strength $> 7.0 \text{ N} / \text{mm}^2$.

Profiles structure for joinery can have the following dimensions:



L = Length 6100 mm
B = Width 40-140 mm
D = height 48, 72, 76, 88, 96 mm
d = lamellas may have length 6100, width 40-140 mm FJ on width and length

At the clients request and architects recommendation it can be executed different lamellar composition or different sections.



Details and other products available on our website:

www.woodwindow.ro



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