egoin
ZUREZKO ERAIKUNTZAK
TIMBER CONSTRUCTION

egoin: certified quality

EGOIN has been awarded with five quality seals by the Timber Industry Research Association **(AITIM).**

The Catalonian Institute of Construction Technology **ITEC** has awarded Egoin CLT panels quality with the CE marking and European Technical Approval **ETA 11/0464**.

Egoin laminated timber products also hold the **CE certificate** of conformity, issued by AENOR.

EGOIN supports sustainable forest management practices and uses eco-labelled products approved by the Programme for the Endorsement of Forest Certification **PEFC**.

We are one of the first companies to become certified **Passivhaus** and **Minergie-Eco** builders.

Finally, our manufacturing processes and health and safety policy hold the **ISO 9001** and **OHSAS 18001** certificates.

CE
1220-CPD-1112
ETA certification

AITIM seals

AENOR
certificate of conformity CE
0059/CPD/AES/0019
AENOR seal

MINERGIE-A®
Minergie-Eco

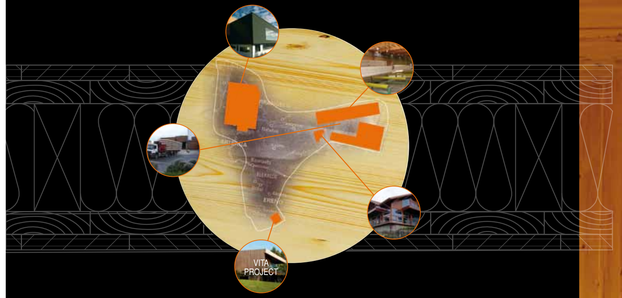
AENOR
Empresa Registrada
ISO 9001
ER-0104/2010
ISO 9001

AENOR
Seguridad y Salud Laboral
OHSAS 18001
ER-0039/2012
OHSAS 18001

PEFC
Forest Certification Schemes (PEFC)

Certified
Passive House
Passive House Institute
Passivhaus

egoin
timber construction
natxitua-ea (bizkaia)



download our catalogue from

www.egoin.co.uk

www.panelesclt.com
www.construccionpasiva.net

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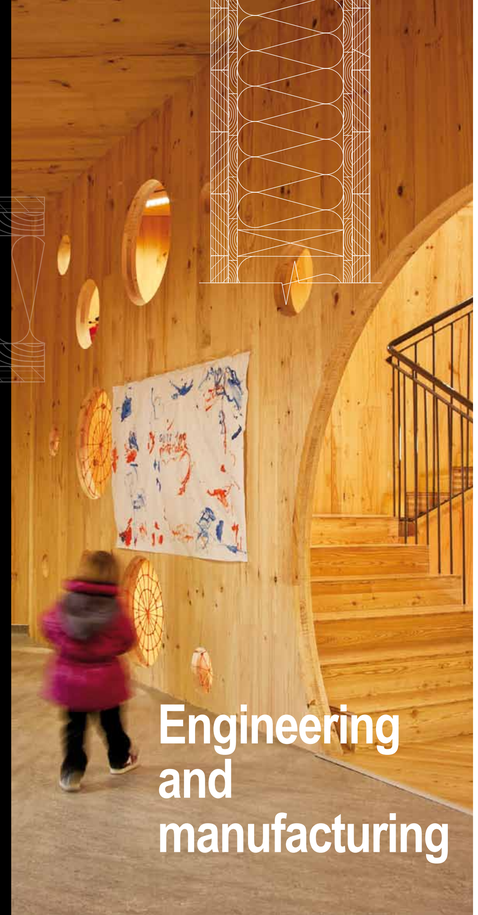


Engineering and manufacturing

egoin
ZUREZKO ERAIKUNTZAK
TIMBER CONSTRUCTION

EGO CLT™

EGO CLT MIX™

advantages

1 High ecological value

The wood used in the manufacture of EGO_CLT™ and EGO_CLT MIX™ panels is sourced from sustainably managed forests by a socially responsible supply chain. Our processes and products respect the environment.
In addition, wood is a construction material with low embodied energy that sequestrates and stores carbon within; thus the building acts as a carbon sink.

2 Cost control

Technical project planning from start to delivery enables a detailed cost control to minimise unforeseeable events and cost deviations from the original budget.

3 Short construction times

The high degree of prefabrication of Egoin timber structures can reduce on-site construction times by over 80%.
This minimises mistakes and allows us fabricating to the highest quality standards. The optimization of our manufacturing process coupled with a detailed project planning entails reductions in costs, delivery times and a more efficient coordination of following trades.

4 Bioconstruction: an eco-efficient solution for quality of life

Wood is a renewable resource that reduces static energy, regulates moisture and creates clean, warm and friendly spaces that provide a high quality of life. The use of wood as a building material is our commitment to ecology and maximum comfort. Its unique beauty, resistance and thermal and acoustic properties make wood an ideal material for all types of buildings.

5 Increased quality control

The combination of a quality control system, a state-of-the-art factory and the use of the latest technology in our production processes allows us fabricating to the highest quality standards and prevents making costly mistakes.

6 Excellent static response

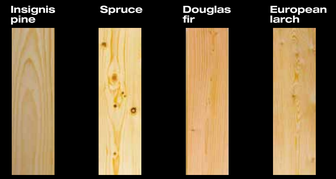
A high load bearing capacity combined with a low density gives wood an excellent strength-to-weight ratio.
The use of timber for long spans and large open spaces without the need for intermediate supports offer designers the possibility to design spacious, bright spaces with modern, clean lines.

Construction process

EGO_CLT™ and CLT_MIX™ cross laminated timber panels are highly versatile and can be used in any part of a building in new build and rehabilitation projects. Manufactured in our factory, they are stored and prepared for on-site transportation by lorry and/or ship under strict safety conditions. Once on site, they are quickly and systematically assembled, providing the building with all the advantages of solid timber construction.

Our choice of wood species

We offer a wide range of wood species: **spruce**, with light white colour and a density of 400Kg/m³.
Douglas fir, with red coloured heartwood, white sapwood and a density of 520 kg/m³;
Insignis pine or Radiata Pine, matt white coloured and with a density of 500 kg/m³;
and **European larch**, with light tan colour and a density of 550 kg/m³.



Wide range of qualities available
Other species available on request

Dimensions

Length: up to 14000 mm
Width: up to 3800 mm
Typical thicknesses:
60 to 225 mm for EGO_CLT™
190 to 330 mm for EGO_CLT MIX™

Note:
Special thicknesses available upon request.

EGO CLT™

EGO_CLT™ is a solid timber panel made of timber boards glued together in a cross-layered pattern. Panels can reach up to 14000 mm in length and 3800 mm in width. Typical thicknesses range from 60 mm to 225 mm. The weight per panel will depend on size and species.

EGO CLT MIX™

In the EGO_CLT MIX™ panels the central layer is substituted by a substructure made of beams, creating a box-shaped cavity within.

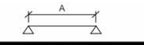
This cavity is filled with thermo-acoustic insulation: rock wool, sheep wool or wood fibre. These panels have even better mechanical, thermal and acoustic properties and employ less timber than standard CLT panels.
They are used mainly for floor/ceiling and roof structures.

Surface qualities

We manufacture in **industrial quality** for panels to be left unexposed – covered with plasterboards or other cladding systems; and in **visible quality** for exposed floors, ceilings, walls and roofs.

ecological value
versatility
reduction of CO2 emissions
moisture regulation=comfort
quality of life
fire resistance
thermal insulation
acoustic insulation

Pre-dimensioning of panels



EGO_CLT™ 2 supports
EGO_CLT MIX™ 2 supports (same thickness in mm)

h [mm]	Maximum span A (m)										
q_k [kN/m²]	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00
q_k [kg/m²/m²]	100	150	200	250	300	350	400	450	500	550	600
60	2.9	2.7	2.4	2.3	2.1	2.0	1.9	1.9	1.9	1.8	1.7
73	3.5	3.1	2.9	2.7	2.6	2.4	2.3	2.2	2.2	2.1	2.0
81	3.9	3.5	3.3	3.0	2.9	2.8	2.7	2.6	2.5	2.4	2.3
99	4.7	4.3	3.9	3.7	3.5	3.4	3.2	3.1	3.0	2.9	2.9
135	6.2	5.7	5.3	5.0	4.7	4.5	4.4	4.2	4.1	3.9	3.8
165	6.7	6.2	5.7	5.4	5.2	4.9	4.8	4.6	4.5	4.3	4.2
225	8.8	8.1	7.6	7.2	6.9	6.7	6.4	6.2	6.0	5.8	5.7
190	6.2	5.7	5.4	5.1	4.8	4.7	4.5	4.3	4.2	4.1	4.0
230	7.1	6.6	6.2	5.9	5.7	5.4	5.2	5.1	4.9	4.8	4.7
300	8.5	8.0	7.6	7.2	6.9	6.7	6.5	6.3	6.1	5.9	5.8
330	9.0	8.5	8.1	7.7	7.4	7.2	6.9	6.7	6.6	6.4	6.2

1kg = 1daN
1kN = 100kg
1MPa = 1N/mm²

Young's modulus: **E= 10.000 N/mm²**
Elastic limit: $f_{m,k}$= 10 N/mm²
Density: **ρ= 450 kg/m³**

*Load per m² applied with an inter-axis of 625 mm
**Fatigue effects not considered

EGO_CLT™ 3 supports
EGO_CLT MIX™ 3 supports

h [mm]	Maximum span B (m)										
q_k [kN/m²]	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00
q_k [kg/m²/m²]	100	150	200	250	300	350	400	450	500	550	600
60	4.0	3.6	3.3	3.0	2.9	2.8	2.7	2.6	2.5	2.4	2.3
73	4.7	4.2	3.8	3.6	3.4	3.3	3.1	3.0	2.9	2.9	2.8
81	5.3	4.8	4.4	4.1	3.9	3.7	3.6	3.4	3.3	3.2	3.1
99	6.3	5.7	5.3	5.0	4.7	4.5	4.3	4.2	4.0	3.9	3.8
135					6.7	6.3	6.1	5.8	5.7	5.5	5.3	5.2
165						6.9	6.6	6.4	6.2	6.0	5.8	5.7
225												7
190					6.8	6.5	6.3	6.0	5.8	5.7	5.5	5.4
230								7.0	6.8	6.6	6.5	6.3
300												7
330												7

1kg = 1daN
1kN = 100kg
1MPa = 1N/mm²

Young's modulus: **E= 10.000 N/mm²**
Elastic limit: $f_{m,k}$= 10 N/mm²
Density: **ρ= 450 kg/m³**

*Load per m² applied with an inter-axis of 625 mm
**Fatigue effects not considered
Maximum manufacturing length: 14 m

Note:
Special lengths and thicknesses available on request.
Data for guidance only.