

# iQwood



*Made of gently dried alpine wood, extremely stable and resistant to pests. iQwood is not treated with any chemical agents and therefore does not contain any allergens or other harmful substances.*

# What is iQwood?

## THE SMARTEST CHOICE

*iQwood is a patented, solid, extremely stable and safe wooden structure, made exclusively of solid alpine wood and without any adhesives, chemicals or metals.*

*It consists of cross-stacked wooden boards, firmly and permanently joined with solid wooden dowels. The dowels are not visible on the outside, which makes iQwood suitable for constructing the walls and roofs of the most beautiful solid wooden homes.*



Photo by: Janez Marolt

### QUALITIES:

1. Architectural design without compromise
2. Practical flexibility
3. Longer lifetime
4. Exceptional fire safety
5. Excellent earthquake resistance
6. Record-breaking insulation
7. Good for your health
8. Pleasant comfort
9. Environmentally friendly

### Certified and patented

iQwood building elements for walls, ceilings and roofs are tested and certified by independent European institutes. iQwood is patented and trademarked all over Europe. However, we are always developing and improving it to make it even safer, more comfortable and more durable.

You can always count on the fact that all iQwood products are made with the utmost attention to detail when it comes to their dimensions. Windows, doors and additional parts can be ordered concurrently and installed as needed. To ensure the best quality and sustainability, all steps of the process – from the design, felling, drying, profiling and joining to the transport and construction – are managed with iQwood's IQM system.





### **Innovation and care**

Exclusive, environment-friendly wood cut down at the exact right time ensures a long lifespan of the structure and a living space of the highest quality. Our core principles revolve around sincere respect for everyone we work with and excellence in everything we do while making our best efforts to reach the highest level of aesthetics and creativity, which is our most powerful driving force.

iQwood: what the best wooden eco-friendly homes are made of.

### **Made by EKOART**

The EKOART company builds construction systems designed for unique, beautiful, healthy and natural homes. We also develop machines used for the construction of such homes, specifically for the production process, and have in place a distribution network to deliver structures across Europe. We combine the knowledge of our ancestors, who mastered the wood construction techniques, with the latest computer-guided technologies.







Photo by: Janez Marolt

iQwood

Standard compositions

**EXTERNAL iQwood WALLS**  
**INTERIOR iQwood WALLS**  
**SOLID iQwood CEILINGS**  
**SOLID iQwood ROOF**

# Standard compositions

## EXTERNAL iQwood WALLS

The exterior IQ wood solid wood walls are made of solid spruce wood, with cross-laid planks nailed with the help of dowels. The dowels on the inside are not visible, which gives the walls a particularly nice look, with the visible layer having the possibility to choose between different types of wood.

The walls are made completely without adhesives or other chemical additives and are diffusion open. In combination with the wood-fiber insulation system, which represents the thermal envelope of the building and the wooden facade, which represents its physical protection, they provide exceptional quality and a healthy living climate, while offering high earthquake and fire safety and flexibility in terms of heating in winter and cooling in summer. Depending on the complexity of the architecture and the requirements of statics, it is possible to choose between different thicknesses of solid wood walls. Wall elements allow optimal combination with other wooden or steel construction elements.

### STANDARD COMPOSITION OF EXTERNAL iQwood WALLS

TYPE	IQWOOD WALL	TOTAL THICKNESS	ADDITIONAL VISIBLE LAYER	$U_w$	WALL INSULATION	WALL INSULATION	FACADE	ADDITIONAL OPTIONS
1.1	15 cm	37 cm	visible quality of the wooden wall	0,151 W/m <sup>2</sup> K	soft wood-fibre insulation - steico flex (16 cm)	hard wood-fibre facade panel - steico protect (6 cm)	vertical or horizontal wooden facade	integrated installation plane
			industrial quality of the wooden wall	0,151 W/m <sup>2</sup> K				
	9 cm	31 cm	visible quality of the wooden wall	0,163 W/m <sup>2</sup> K				
			industrial quality of the wooden wall	0,163 W/m <sup>2</sup> K				
1.2	15 cm	39 cm	additional clay plasters (2 cm)	0,151 W/m <sup>2</sup> K			contact facade	
	9 cm	33 cm	additional clay plasters (2 cm)	0,163 W/m <sup>2</sup> K				

### 1.1 iQwood

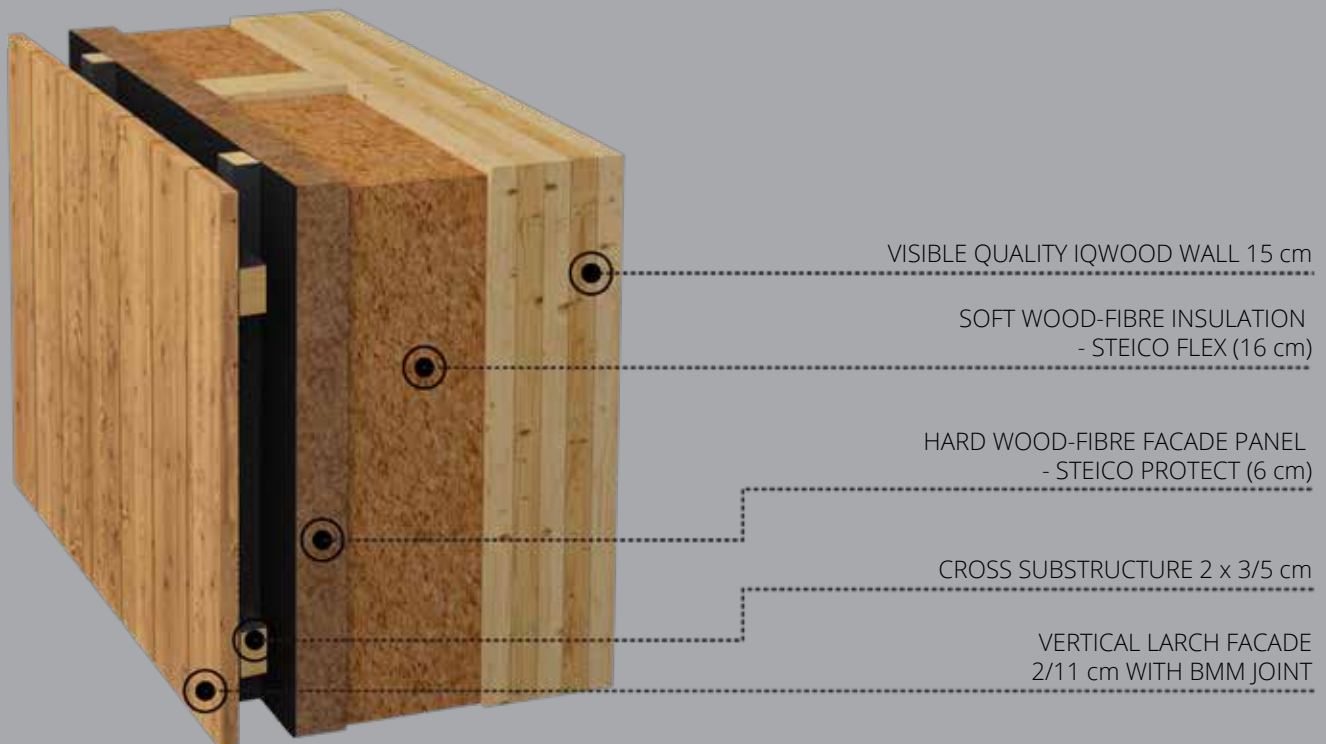


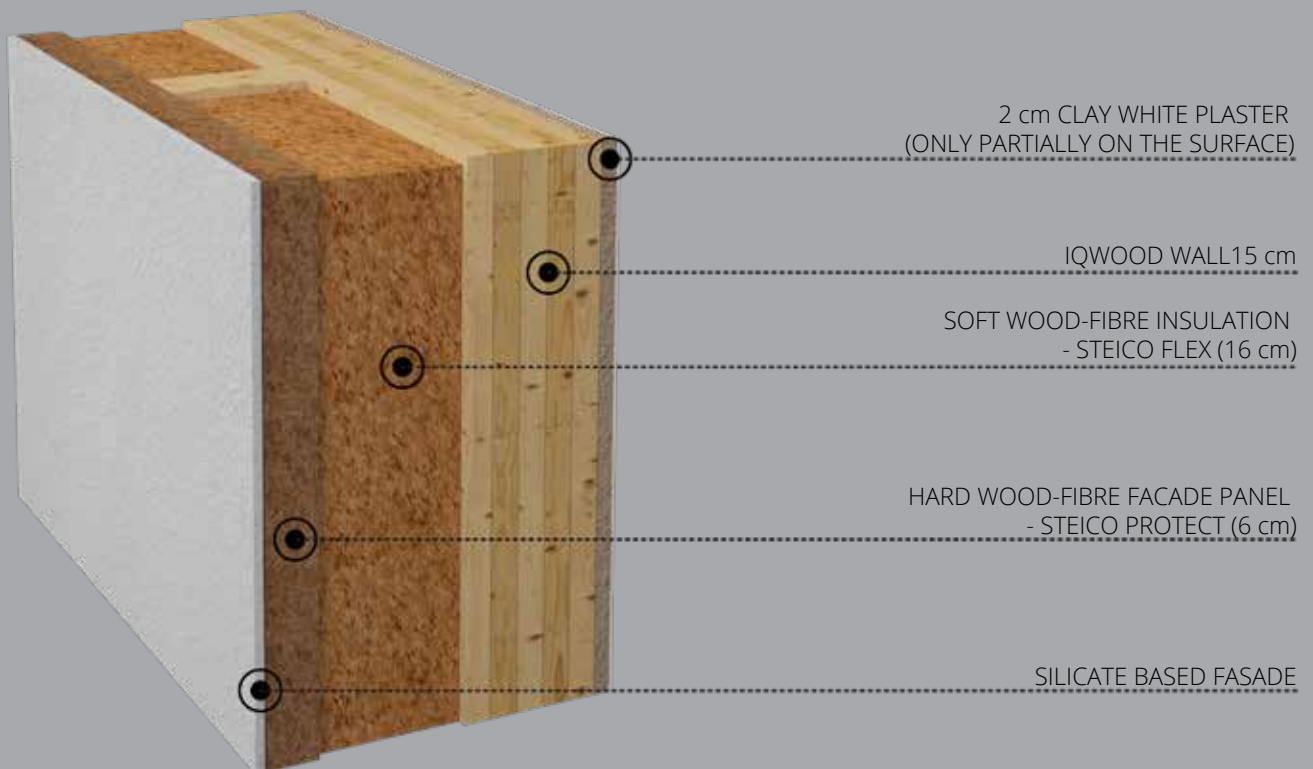




Photo by: Janez Marolt

Example of visible exterior iQwood wall

## 1.2 iQwood



# Standard compositions

## INTERIOR iQwood WALLS

The interior IQ wood solid wood walls are made of solid spruce wood, with cross-laid planks nailed with the help of dowels. The dowels are not visible on one side, which gives the walls a particularly nice look, with the visible layer having the possibility to choose between different types of wood.

The walls are made completely without adhesives or other chemical additives and are diffusion open. In combination with clay plasters, they provide an exceptionally high quality and a healthy living climate, while at the same time offering high earthquake and fire safety and flexibility in terms of heating in winter and cooling in summer. Depending on the complexity of the architecture and the requirements of statics, it is possible to choose between different thicknesses of solid wood walls. Wall elements allow optimal combination with other wooden or steel construction elements.

### STANDARD COMPOSITION OF INTERIOR iQwood WALLS

TYPE	IQWOOD WALL	TOTAL THICKNESS	ADDITIONAL VISIBLE LAYER	ADDITIONAL OPTIONS
2.1	9 cm	9 cm	visible quality of the wooden wall	integrated installation plane
	9 cm	9 cm	industrial quality of the wooden wall	
	9 cm	11 cm	additional clay plasters (2 cm)	

### 2.1 INTERIOR iQwood WALL

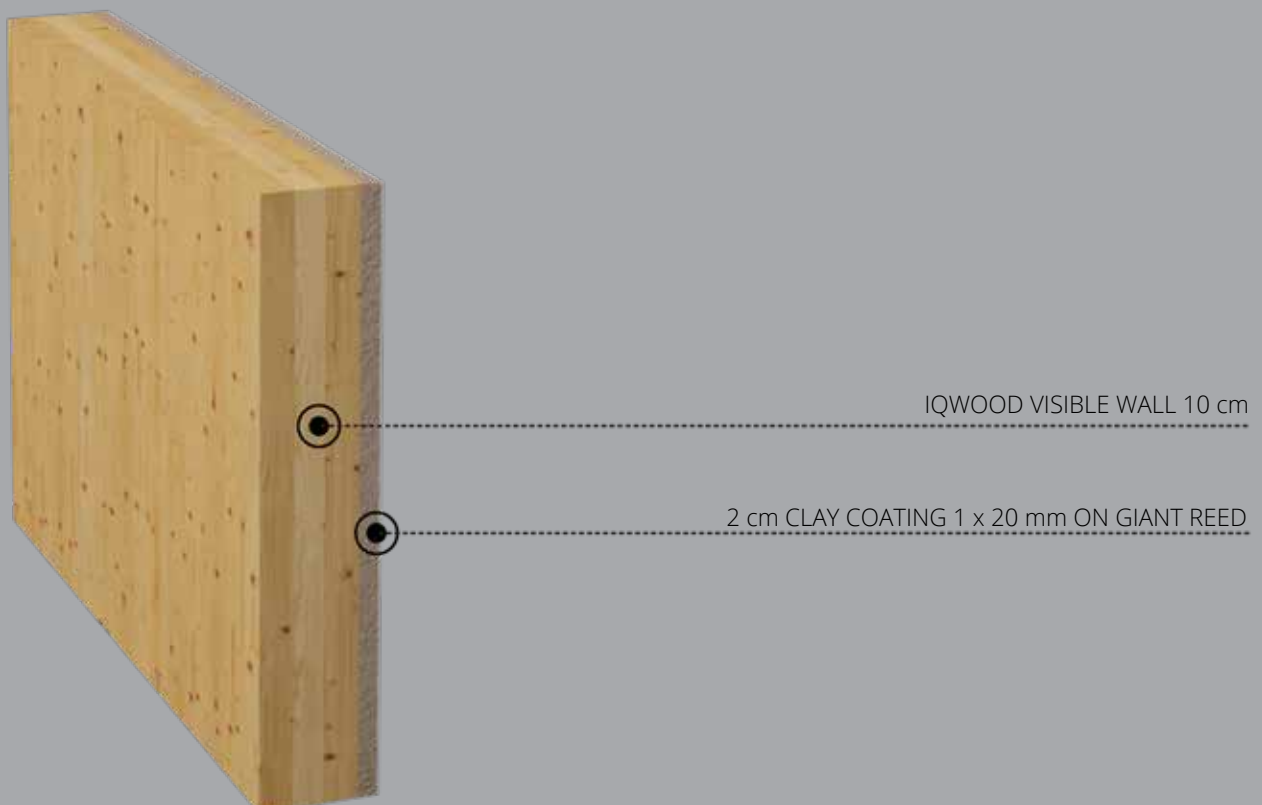


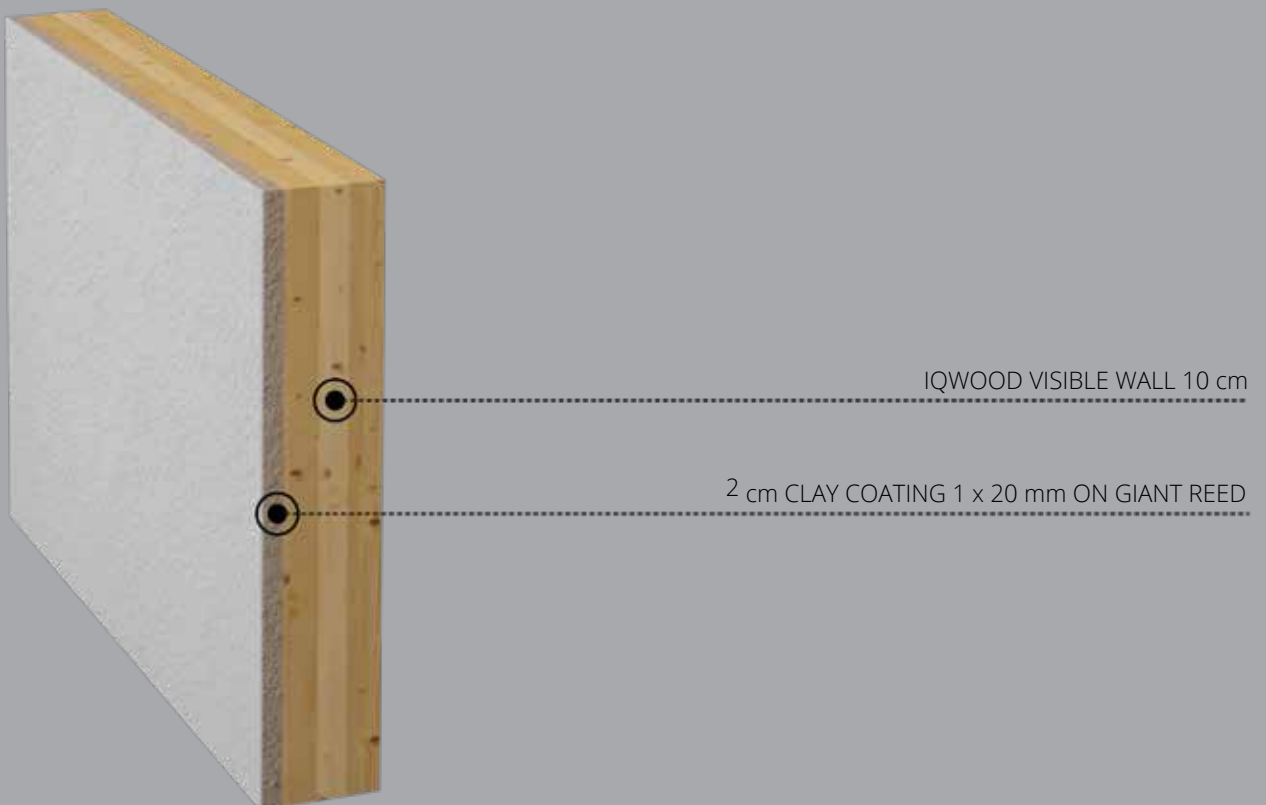




Photo by: Janez Marolt

Example of interior iQwood wall

## 2.2 INTERIOR iQwood WALL - CLAY SIDE



# Standard compositions

## iQwood CEILINGS

The IQ wood solid wood ceiling elements are made of solid spruce wood, the longitudinally placed planks being nailed with the help of dowels. On the lower, visible side, it is possible to make an acoustic profile on the ceiling, which gives the wooden ceiling a modern look and exceptional noise-absorbing characteristics.

The ceilings are made completely without adhesives or other chemical additives and are diffusion open.

Depending on the complexity of the architecture and the requirements of statics, it is possible to choose between different thicknesses of ceilings, thus making it possible to achieve relatively large ranges. Ceiling elements allow optimal combination with other wooden or steel construction elements.

### STANDARD COMPOSITION OF SOLID iQwood CEILINGS

TYPE	IQWOOD CEILING	TOTAL THICKNESS	APPEARANCE OF THE LOWER PROFILE	SCREED	HARD WOOD-FIBRE PANEL (STEICO PROTECT)
3.1	12-24 cm	32-44 cm	acoustic straight	Glinopor or Cemwood drywall filling (10 cm) and hard wood-fibre panel (4 cm)	cross wooden substructure with floor heating pipes (6 cm)
3.2	12-24 cm	32-44 cm	acoustic straight	EPS (10 cm)	system panel and concrete screed (10 cm)

### 3.1 DOWELLED CEILING - VISIBLE BELOW, BIO COMPOSITION OF FLOOR HEATING

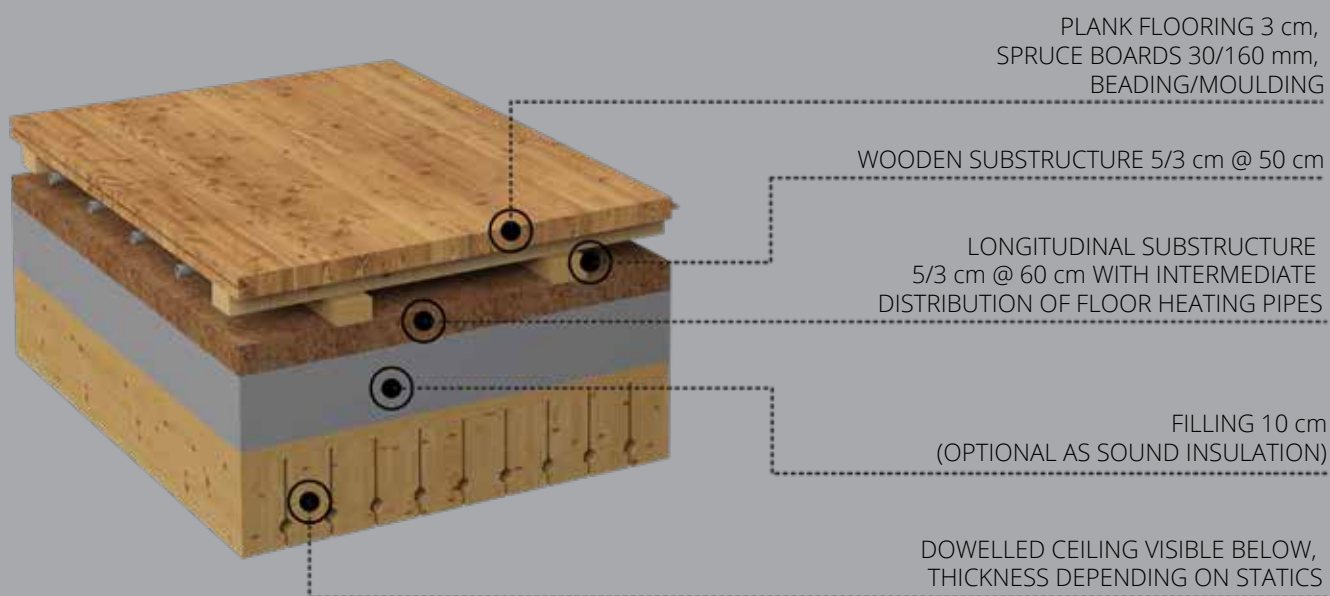
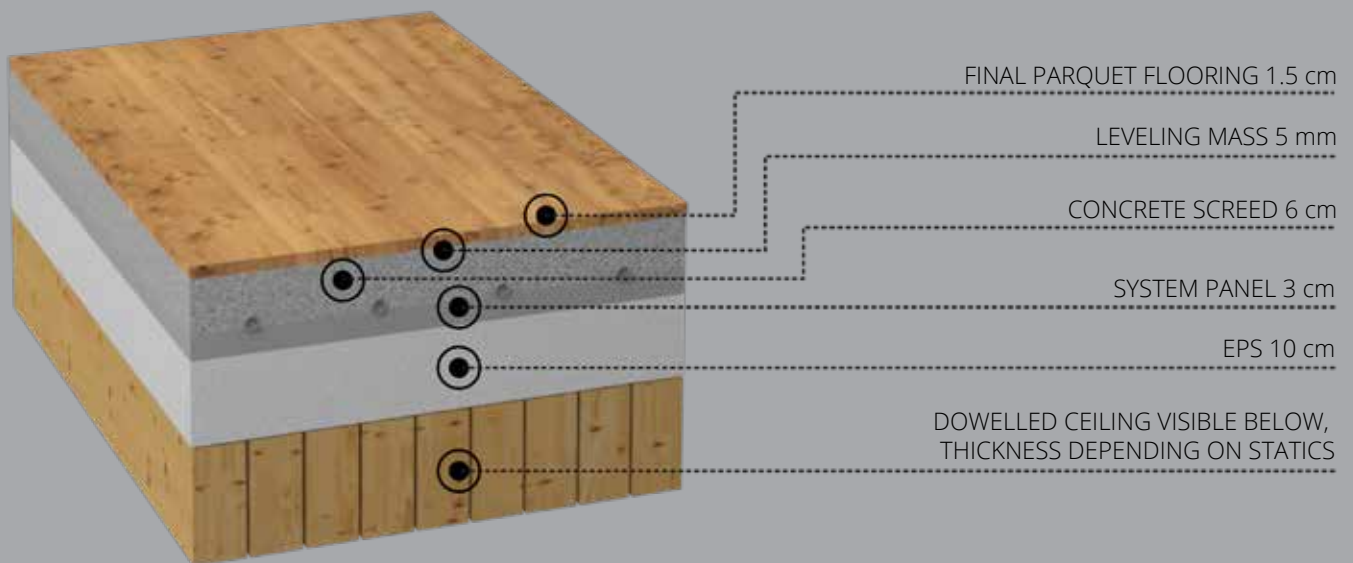




Photo by: Janez Marolt

Example of interior iQwood dowelled ceiling

### 3.2 DOWELLED CEILING - VISIBLE BELOW





# Standard compositions

## SOLID iQwood ROOF

The IQ wood solid wood roof elements are made of solid spruce wood, the longitudinally placed planks being nailed with the help of dowels. On the lower, visible side, it is possible to make an acoustic profile on the roof, which gives the roof a modern look and exceptional noise-absorbing characteristics.

The roof elements are made completely without adhesives or other chemical additives and are diffusion open. In combination with the wood-fiber insulation system, which represents the thermal envelope of the building and the slates, that represent its physical protection, they provide exceptional quality and a healthy living climate, while offering high earthquake and fire safety and flexibility in terms of heating in winter and cooling in summer.

Depending on the complexity of the architecture and the requirements of statics, it is possible to choose between different thicknesses of roof elements, thus making it possible to achieve relatively large ranges. Roof elements enable optimal combination with other wooden or steel construction elements and are suitable for both sloping and flat roofs.

### STANDARD COMPOSITION OF SOLID iQwood ROOF

TYPE	IQWOOD ROOF	TOTAL THICKNESS	ADDITIONAL VISIBLE LAYER	$U_w$	INSULATION	PROTECTION WITHOUT FINAL LAYER	ROOF
4.1	12 - 24 cm	32 - 44 cm	appearance of the lower profile	0,091 W/m <sup>2</sup> K	EPS (22-36 cm)	Bitumen Hydro insulation with UV dusting (2 cm)	XPS protection on green roof or gravel filling
4.2	12 - 24 cm	32 - 44 cm	acoustic straight	0,134 W/m <sup>2</sup> K 0,134 W/m <sup>2</sup> K	soft wood-fibre insulation - steico flex in wooden cross substructure (26 cm)	boards with roof foil (2 cm)	prefa rhomboid

### 4.1 SOLID VISIBLE DOWELLED ROOF PANEL - VISIBLE BELOW, GREEN ROOF

GREEN ROOF - EXAMPLE  
KNAUF INSULATION URBANSCAPE

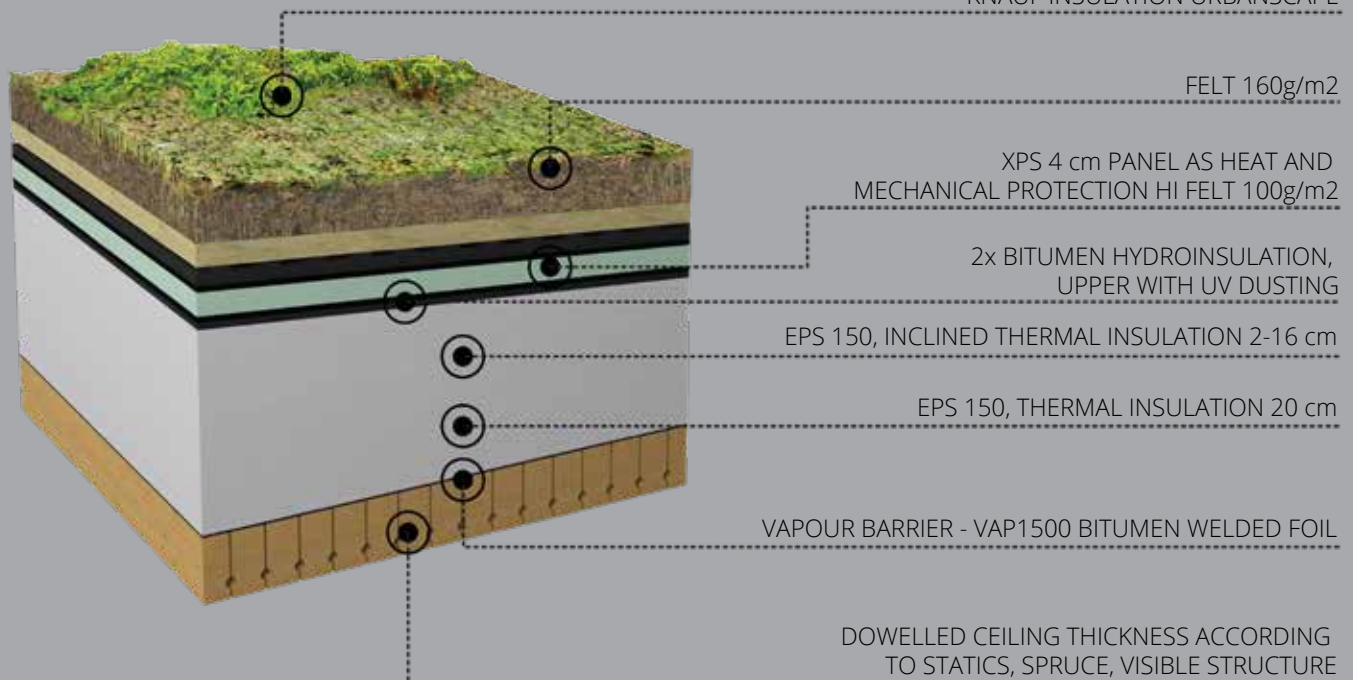




Photo by: Miran Kambič

Example of interior iQwood dowelled roof

## 4.2 SOLID VISIBLE DOWELLED ROOF PANEL - VISIBLE BELOW, PREFE RHOMBOID

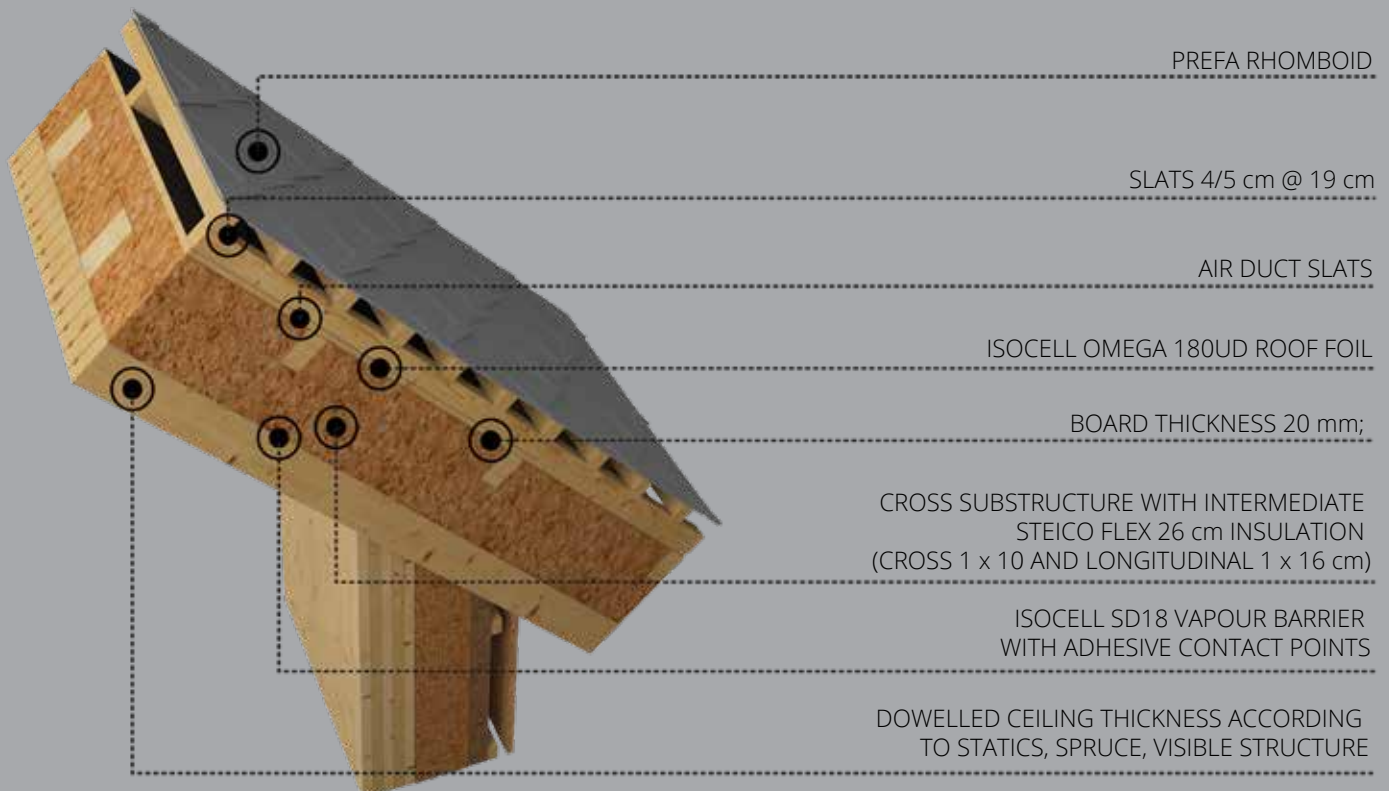




Photo by: Janez Marolt



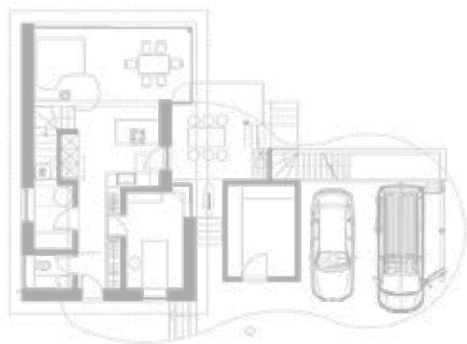
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References iQwood

# Reference iQwood

## A HOUSE THAT GIVES LIFE

FLOOR PLAN



**NEW BUILDING**

**CONSTRUCTION SYSTEM:** solid wood iQwood organic construction completely without adhesives

**INSULATION:** organic insulation in hemp and wood fiber boards

**HEATING:** exclusively through recuperative ventilation and solar energy

**ARCHITECTURE:** Ekoart, Miha Bogataj in Atracija d.o.o., Mojca Hribar

**STATICS:** Ciril Bogataj u.d.i.g

**YEAR OF CONSTRUCTION:** 2015

**PHOTO BY:** Miran Kambič

Highly technologically advanced and sustainable construction, placed on wooden boards 1m above the floor, wooden interior cladding in combination with clay plasters. The building has modern glazing in large dimensions. Electrical control of skylights. Great knowledge of statics reflected on the construction of the building and the canopy.









# Reference iQwood

## A HOUSE FOR A FAMILY THAT KNOWS HOW TO ENJOY

FLOOR PLAN



**NEW BUILDING**

**CONSTRUCTION SYSTEM:** iQwood solid wood wall completely in visible quality

**CONSUMPTION:** 20.0 Kwh/m<sup>2</sup> per year

**INSULATION:** wood fibers

**VENTILATION/HEATING:** compact unit Stiebel Eltron LWZ 504

**ARCHITECTURE:** Jurij Oven

**STATICS:** Ciril Bogataj, u.d.i.g.

**YEAR OF CONSTRUCTION:** 2015

**PHOTO BY:** Janez Marolt



The investors wanted an organic house. Thus, without adhesives, that breathes, is solid and durable. They feel comfortable, safe and can enjoy in nature. The iQwood organic construction system allows for flexibility in architecture and so, in collaboration with architect Jurij Oven, we created another wonderful story. A house in the iQwood system that stands out in the neighborhood and is inviting with its warm wooden facade for all passers-by.







# Reference iQwood

## A HOUSE FOR A FAMILY OPEN TO CHANGE

FLOOR PLAN



### NEW BUILDING

**CONSTRUCTION SYSTEM:** iQwood solid wood wall completely in visible quality

**CONSUMPTION:** 20.0 kWh/m<sup>2</sup> per year

**INSULATION:** wood fibers

**VENTILATION/HEATING:** compact unit Stiebel Eltron LWZ 504

**ARCHITECTURE:** Miha Bogataj, Ekoart hiše

**STATICS:** Ciril Bogataj, u.d.i.g.

**YEAR OF CONSTRUCTION:** 2016

**PHOTO BY:** Janez Marolt



After visiting our wooden building, the investor completely withdrew from the concrete design of the building and wanted a real wooden house. Thus, without adhesives, that breathes, is solid and durable. Due to the very open design of the house designed in concrete, we at Ekoart took on a new statics and took over the entire PZI project, where the investor left the architectural and implementation solutions to us with great confidence. The result is a beautiful building in the iQwood system that stands out in the neighborhood and inviting with its warm wooden facade for all passers-by.









# Reference iQwood

## A HOUSE IN THE VINEYARD

FLOOR PLAN



### RENOVATION

**CONSTRUCTION SYSTEM:** solid wood wall completely in visible quality

**CONSUMPTION:** 20.0 kWh/m<sup>2</sup> per year

**INSULATION:** mineral wool on the walls and roof

**VENTILATION/HEATING:** heating with energy-saving electric radiators

**ARCHITECTURE:** Kombinat Arhitekti d.o.o.

**STATICS:** Ciril Bogataj, u.d.i.g.

**YEAR OF CONSTRUCTION:** 2016

**PHOTO BY:** Janez Marolt

The investor wanted to restore the old grandmother's homestead due to beautiful memories, but after a careful assessment of statics, he decided that it was better to do everything anew. With Kombinat arhitekti, a beautiful and compact building was created, which emphasizes the beauty of the wooden house with minimalist details of the wooden facade of the upper part in combination with the appearance of old plaster of the lower stand. A special feature of the building is the custom-made wooden southern facade, which opens completely upon arrival at the building and closes completely upon departure.



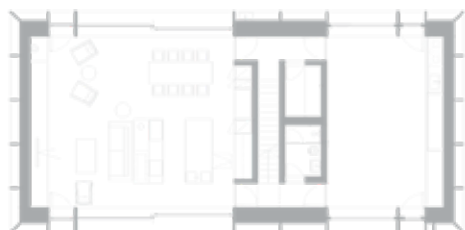




# Reference iQwood

## A RANCH HOUSE

FLOOR PLAN



### NEW BUILDING

**CONSTRUCTION SYSTEM:** iQwood + skeletal supports/ energy saving wall 15 + 20 cm

**CONSUMPTION:** 14,0 kWh/m<sup>2</sup> per year

**INSULATION:** hemp wool on the walls and roof

**VENTILATION/HEATING:** recuperation + heat pump air water

**SPECIAL FEATURE:** facade of larch shelves

**CARPENTRY:** Sora M, wooden

**ARCHITECTURE:** Nava arhitekti d.o.o.

**STATICS:** Ciril Bogataj, u.d.i.g.

**YEAR OF CONSTRUCTION:** 2014

**PHOTO BY:** Janez Marolt

The ranch with horses on the edge of Bled was missing a new residence. The decision to demolish the existing buildings and build a new modern wooden house took a long time for the family. The new facility is built in the iQwood system, without the use of adhesives and completely made of natural materials, completely insulated with hemp insulation. The modern, bright building with many glass surfaces will serve as a warm and cozy home for the family, which really gives a warm feeling with three fireplaces and creates an above-standard stay with all the subtle and filigree architecturally defined details.







# Reference iQwood

## HOUSE SHOU SUGI BAN

FLOOR PLAN



0 5 m

### NEW BUILDING

**CONSTRUCTION SYSTEM:** iQwood massive wall with clay plaster and visible dowelled ceiling

**CONSUMPTION:** 20.0 kWh/m<sup>2</sup> per year

**INSULATION:** wood-fibre insulation

**ARCHITECTURE:** Ofis arhitekti

**STATICS:** Ciril Bogataj, u.d.i.g.

**YEAR OF CONSTRUCTION:** 2020

**PHOTO BY:** Janez Martinčič

Years ago, the investors already built a small solid wooden house in the countryside. Their excellent experience with this first house was the reason for building a new home in a quiet part of town. The main highlights of the house are the use of solid wood construction without adhesives in combination with clay plasters in the interior, which provide high living comfort, meanwhile the exterior of the house is made of burnt larch, giving the house a modern look. The two cubes, which are skillfully connected into a whole by a bridge, are the work of the architectural firm Ofis arhitekti.







# iqwood



Photo by: Janez Marolt

[www.iqwood.com](http://www.iqwood.com)



iQwood d. o. o.  
Topole 51  
SI-1234 Menges

P: +386 51 337 253  
E: [info@iqwood.com](mailto:info@iqwood.com)