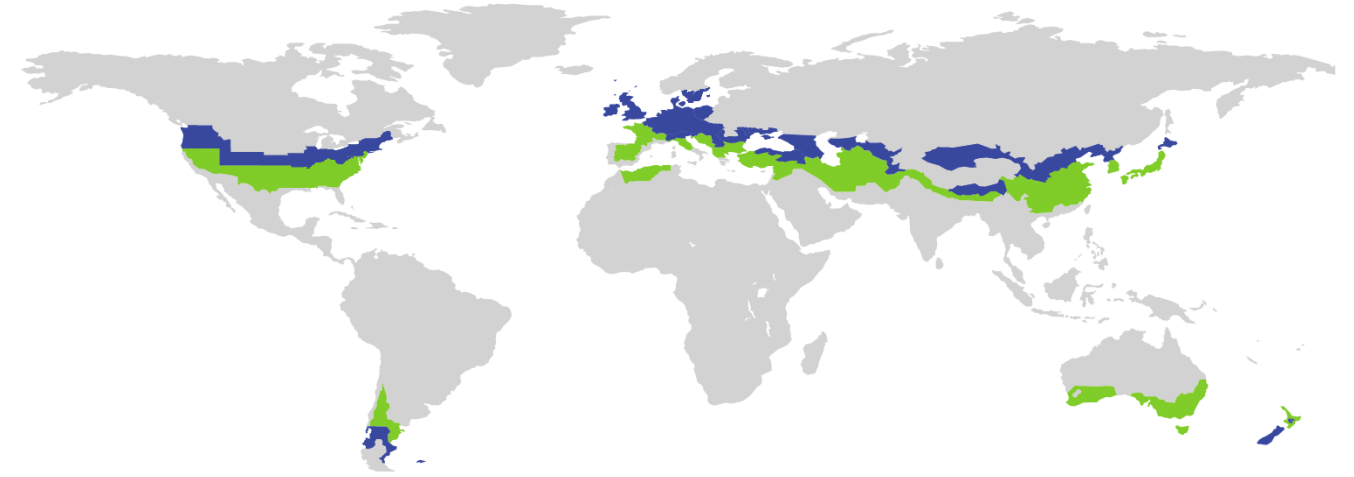


# CERTIFICATE

Certified Passive House Component

ID: 1209cs03 valid until 31. December 2018

Passive House Institute  
Dr. Wolfgang Feist  
64342 Darmstadt  
GERMANY



Category **Construction system | Insulated Formwork blocks**  
Manufacturer **JUB d.o.o.  
Dol pri Ljubljani  
SLOVENIA**  
Product name **JUB Home**

**This certificate for the cool, temperate climate zone was awarded based on the following criteria**

### Hygiene criterion

The minimum temperature factor of the interior surfaces is

$$f_{Rsi=0,25m^2K/W} \geq 0,70$$

### Comfort criterion

The U-value of the installed windows is

$$U_{w,i} \leq 0,85 \text{ W}/(\text{m}^2\text{K})$$

### Efficiency criteria

Heat transfer coefficient of building envelope

$$U \cdot f_{PHI} \leq 0,15 \text{ W}/(\text{m}^2\text{K})$$

Temperature factor of opaque junctions

$$f_{Rsi=0,25m^2K/W} \geq 0,86$$

Thermal bridge free design for key connection details

$$\Psi \leq 0,01 \text{ W}/(\text{m}^2\text{K})$$

An airtightness concept for all components and connection details was provided.



**Opaque building envelope**

JUBHome construction system consists of JUBHome BASE thermal insulation system of foundation slabs, JUBHome WALL ICF construction system of facade and internal load-bearing walls and JUBHome ROOF thermal insulation system for pitched timber framed roofs.

JUBHome BASE (Values see PHI certificate ID: 0955fs03) is a thermal insulation system of expanded polystyrene (EPS) intended for installation under reinforced concrete foundation slabs to ensure a continuous thermal envelope.

JUBHome WALL is a system for the construction of facade and internal load-bearing walls. According to the presently used international terminology, these wall elements are known as ICF (insulated concrete form) elements.

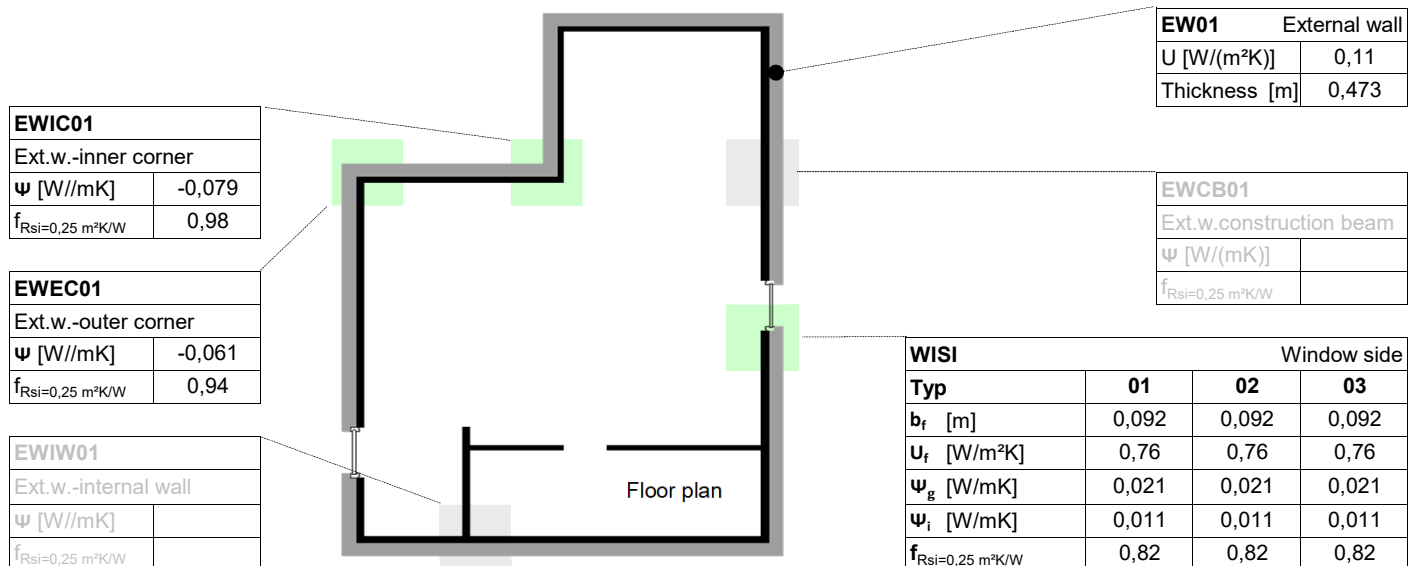
JUBHome ROOF is a system for the thermal insulation of timber-framed roofing structures. It consists of a certain number of basic thermo-insulating elements which are made of expanded polystyrene (EPS).

**Explanatory notes**

The Passive House Institute has defined international component criteria for seven climate zones based on hygiene-, comfort- and affordability criteria. In principle, components which have been certified for climate zones with higher requirements may also be used in climates with less stringent requirements. This use might make sense in certain circumstances.

Thermal bridge not calculated  
 Criteria achieved

Efficiency criteria not achieved  
 Hygiene- or comfort criterion not achieved



**Windows**

The certification was achieved with the window Optiwin PURISTA in standard size, see Variant 01. If individual windows are bigger/heavier, or if they open only on one side, it is necessary at such fixing locations to cut out the EPS and replace it with Purenite or a similar material at the bottom (Var.02). V03 is similar to V01 but with a shutter box at the top installation situation of the window.

For the roof window VELUX GGU-K-008230 was calculated to achieve the criteria.

In any other cases using different products and/or connection details, the values have to be calculated individually.

**Airtightness concept**

On the JUBHome BASE foundation slab the airtight layer is on the reinforced concrete itself.

On JUBHome WALL (interior and exterior walls) smooth layer of continuous interior plaster (base coat and levelling compound from foundation slab up) forms an airtight layer.

On JUBHome ROOF the vapour barrier below thermal insulating layers serves as the airtight layer.

