

# CERTIFICATE

Certified Passive House Component

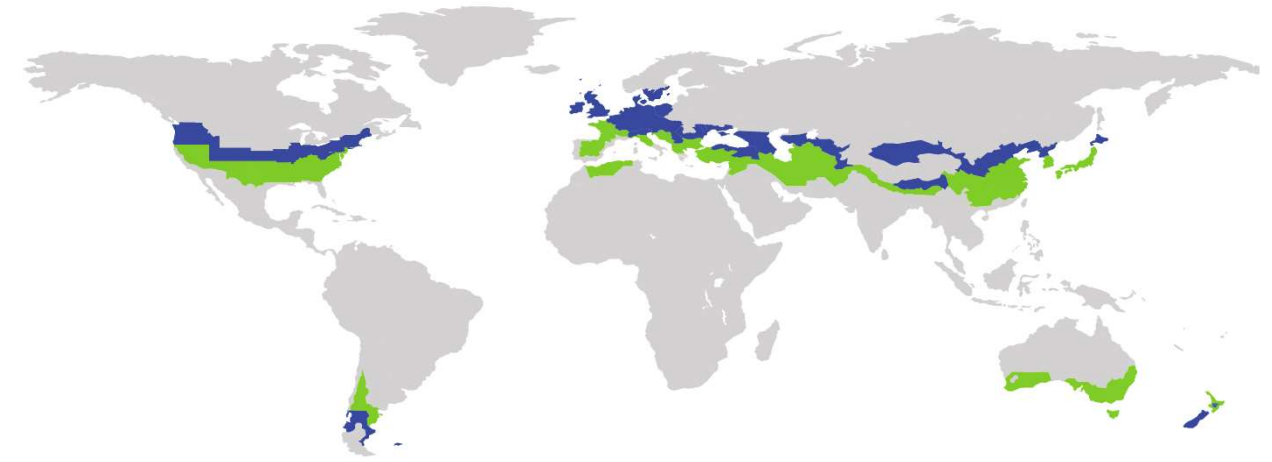
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Passive House Institute

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Category **Construction system | Insulated Formwork blocks**  
Manufacturer **ISO SPAN Baustoffwerk GmbH**  
**Ramingstein**  
**Austria**  
Product name **ISOSPAN ISOPUR**

**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

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

### Comfort criterion

The U-value of the installed windows is

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

### Efficiency criteria

Heat transfer coefficient of building envelope

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

Temperaturfactor of opaque junctions

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

Thermal bridge free design for key connection details

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

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

cool, temperate climate



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COMPONENT**

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**Opaque building envelope**

The walls are erected using a formwork system form wood fibre concrete (36,5 cm), which is filled by resolic insulation (16,5 cm, 0,023 W/(mK)) and concrete (12 cm). Walls are plastered in- and outside. The roof is insulated in between the rafters with 41 cm Wood-fibre insulation (0,04 W/(mK)). Inside covering: Gypsum board on OSB-board. Outside: Timber boards under ventilated slates. Concrete floor slab on XPS insulation.

**Windows**

The certification was achieved with the window Optiwin PURISTA. Variant 01 is showing this window. V2 is similar to V1 but with a shutter box at the top installation situation of the window. Because of the higher thermal bridge of the shutter box, the criterion  $U_w$ , installed is not achieved. this can be compensated by a better glazing. V03 shows the thermal values of Gaulhofer Fusion Line. The comfort criterium is missed by far. Maybe, this ca be compensated by a high performance glazing. This should be tested in any individual case.

**Airtightness concept**

The interior plaster works as the airtightness layer of the interior walls. In the roof the a film provides the airtightness layer. It is connected to the plaster via airtightness tapes. The windows are connected in the same way. In the bottom, the concrete floor slab serves as airtightness layer.

**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

