

CERTIFICATE

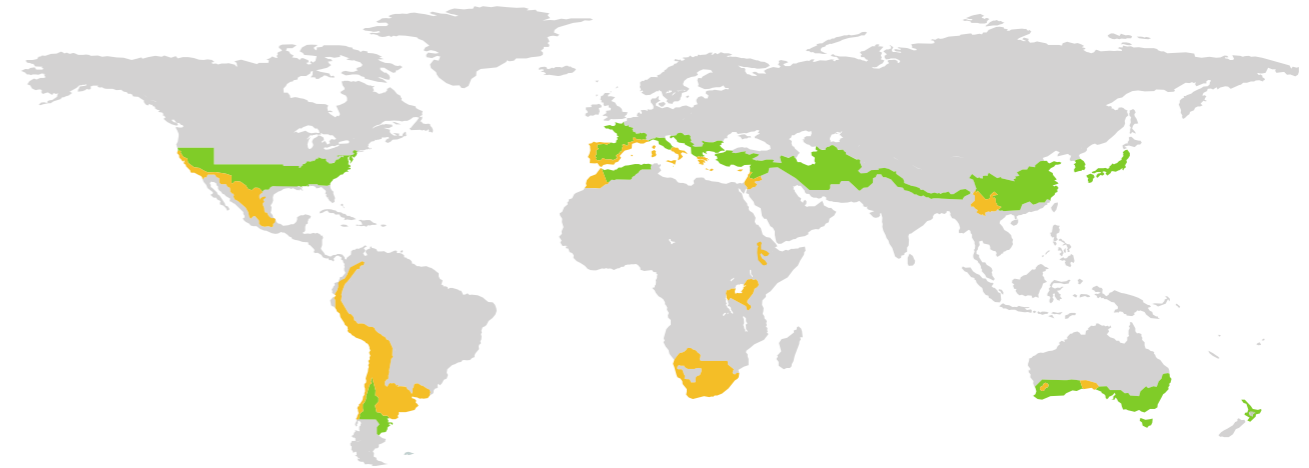
Certified Passive House Component

ID: 1020cs04 valid until 31. December 2021

Passive House Institute
Dr. Wolfgang Feist
64342 Darmstadt
GERMANY

Additional thermal bridges

Name	Thermal bridge	fRsi	Description
EWCE02	$\Psi = 0.024 \text{ W/mK}$	0,90	WALL-CEILING
MPRI01	$\Psi = -0.103 \text{ W/mK}$	0,84	MONO PITCH RIDGE
FSEW02	$\Psi = -0.051 \text{ W/mK}$	0,83	FLOORSLAB-EXT. W. (CRAWL SPACE)



Category	Construction system Lightweight timber construction
Manufacturer	CarbonLite Enterprises Thomastown AUSTRALIA
Product name	PanelLite

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

Hygiene criterion

The minimum temperature factor of the interior surfaces is

$$f_{Rsi=0,25m^2K/W} \geq 0,65$$

Comfort criterion

The U-value of the installed windows is

$$U_{w,i} \leq 1,05 \text{ W}/(\text{m}^2\text{K})$$

Efficiency criteria

Heat transfer coefficient of building envelope

$$U * f_{PHI} \leq 0,30 \text{ W}/(\text{m}^2\text{K})$$

Temperaturfactor of opaque junctions

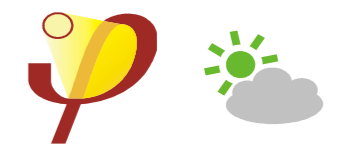
$$f_{Rsi=0,25m^2K/W} \geq 0,82$$

Thermal bridge free design for key connection details

$$\Psi \leq 0,01 \text{ W}/(\text{mK})$$

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

warm, temperate climate



**CERTIFIED
COMPONENT**

Passive House Institute

Opaque building envelope

Timber frame construction with Insulation integrated in the compartment. Insulation consists of mineral wool (0.035 W/mK). Construction: Inside plasterboard 0.01 m, service cavity 0.045 m, 'Intello Plus' (Proclima) - humidity variable diffusion resistance sd-value 7.5+/-0.25, compartment - timber frame with insulation 0.14 m, planking OSB 0.011 m, weather tightness - 'Solitex Extasana' (Proclima) sd-value 0.05+/-0.02, counter batten for ventilation 0.018 m.

Roof construction different executions, construction comparable with wall. Construction: Inside plasterboard 0.01 m, service cavity 0.045 m, 'Intello Plus' - humidity variable diffusion resistance sd-value 7.5+/-0.25, compartment - timber frame with insulation 0.24 m, planking OSB 0.018 m, airtight layer - 'Solitex Extasana' sd-value 0.05+/-0.02, counter batten for ventilation 0.07 m, water leading layer.

Windows

The certification was achieved with the window ECO PLANO from Neuffer (01) and in addition with the Aluplast energeto5000 vinyl window (02). The connection between the windows and the airtight layer is made by tape.

Airtightness concept

Airtightness is achieved through INTELLO PLUS from Proclima. All joints and connections are taped with the suitable tape and components from the Proclima range. Wall/slab connection is done through ORCON from PROCLIMA.

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

