

CERTIFICATE

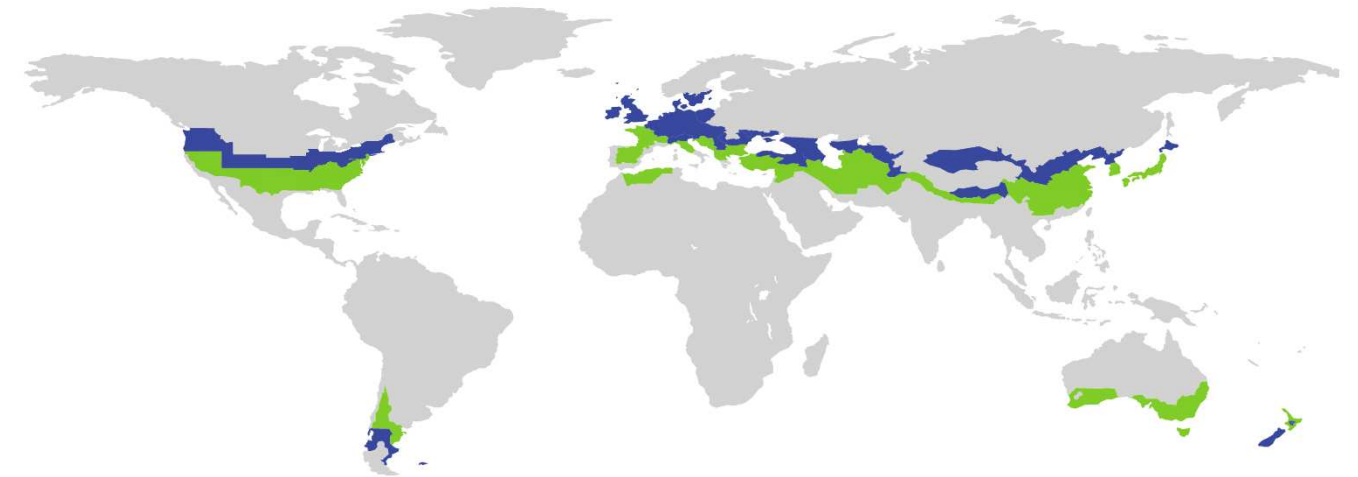
Certified Passive House Component

ID: 1412cs03 valid until 31. December 2021

Passive House Institute
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Additional thermal bridges

Name	Thermal bridge	Description
EWBR01	X= 0,003 W/K	Composite bracket



Category	Construction system Solid construction with ventilated facade
Manufacturer	Dörken Systems Inc. Ontario CANADA
Product name	PH Certified Steel Frame Wall with DELTA®-VENT SA barrier

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

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

Efficiency criteria

Heat transfer coefficient of building envelope

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

Temperaturfactor of opaque junctions

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

Thermal bridge free design for key connection details

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

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



Opaque building envelope

The construction system is built on a concrete floor slab supported by a rigid, high-density stone wool insulation board ROCKWOOL COMFORTBOARD™ 110 on the exterior side.

The walls are constructed of 6" steel stud @ 406mm (16") o.c with R22 ROCKWOOL COMFORTBATT® substrate with 8" ROCKWOOL CAVITYROCK®, a semi-rigid vapor permeable exterior insulation, installed between thermally broken fibreglass clip system with stainless steel screw fasteners (or equal) at 406.4mm (16"). The exterior finish is a ventilated cladding. The interior finish is an interior gypsum board.

The roof construction is formed with a high-density stone wool insulation board 9" ROCKWOOL TOPROCK® DD above a steel deck, supported by steel rafters, as appropriate.

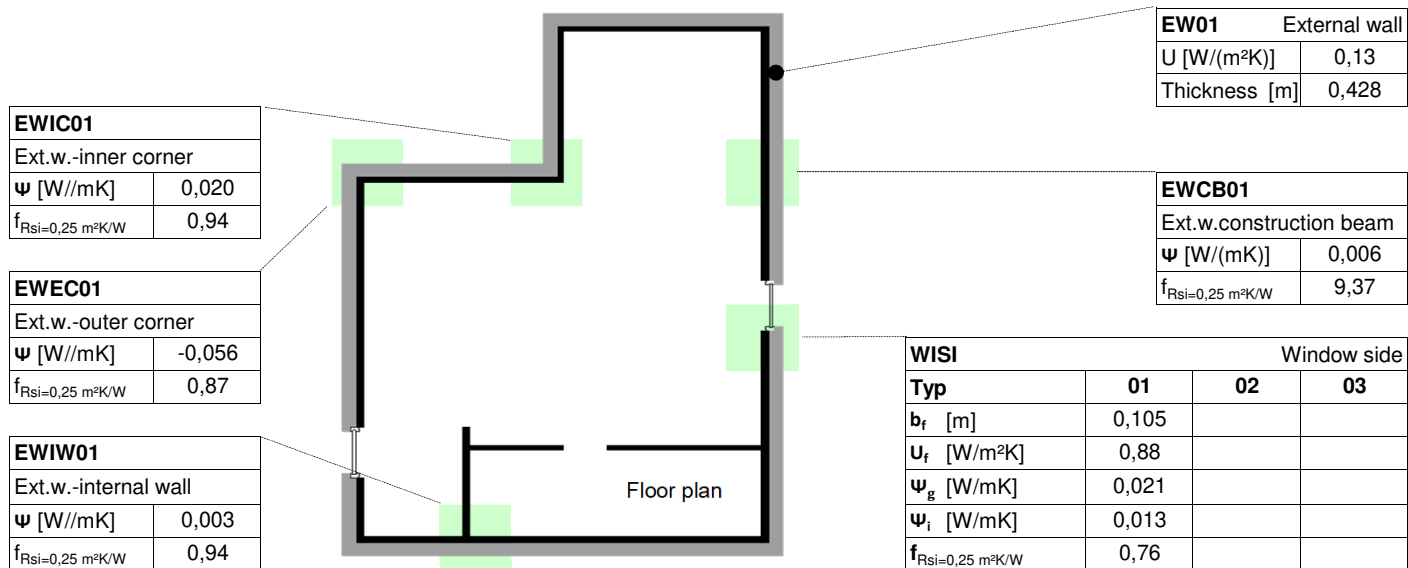
Technical data on the insulation materials can be found at www.rockwool.com.

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 comfortcriteria not achieved



Windows

The certification was done with the PHI-certified window Universal Series PH from Cascadia, which is a pHB-class window with triple 16 mm argon glazing. The window is installed at the outer semi-rigid insulation board ROCKWOOL CAVITYROCK®.

Airtightness concept

The primary airtight layer in the walls and roofs is DELTA®-VENT SA, a fully adhered vapor permeable, air and water-resistive barrier installed on the exterior side of the exterior gypsum board. DELTA®-VENT SA is available with a variety of accessories to allow connection of DELTA®-VENT SA with other buildings components for airtight assembly.

List of available accessories and details can be found

