

CERTIFICATE

Certified Passive House Component

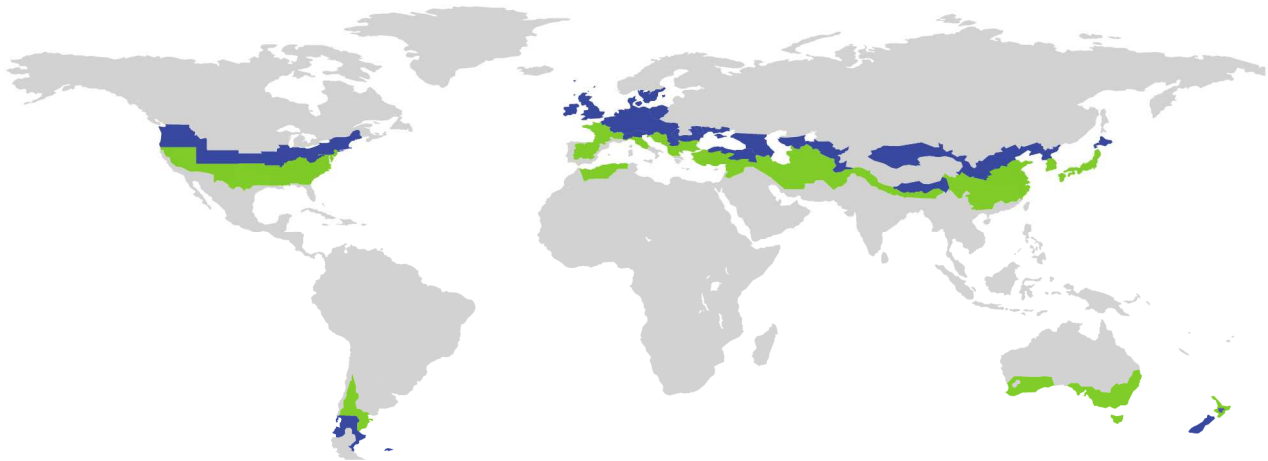
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Passive House Institute

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Category **Construction system | Lightweight construction**
Manufacturer **Metsä Wood Deutschland GmbH**
Bremen
GERMANY
Product name **FinnFrame-Bausystem**

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

$$U_{W,i} \leq 0.85 \text{ W}/(m^2K)$$

Efficiency criteria

Heat transfer coefficient of building envelope

$$U \cdot f_{PHI} \leq 0.15 \text{ W}/(m^2K)$$

Temperaturfactor of opaque junctions

$$f_{R_{si}=0,25m^2K/W} \geq 0.86$$

Thermal bridge free design for key connection details

$$\Psi \leq 0.01 \text{ W}/(m^2K)$$

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



cool, temperate climate

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Determined values

Thermal heat transfer coefficient	Dimension [m]	U-Wert [W/(m²K)]
EW01 - External Wall	0.40	0.120
RO01 - Roof	0.34	0.140
BC01 - Basement Ceiling	0.37	0.150
FS01 - Floor Slab	0.43	0.132
EW02 - External Wall	0.53	0.149
BW01 - Basement Wall	0.48	0.161

Thermal bridge coefficient opaque envelop	fRsi [-]	Ψ [W/(mK)]
EWIW01 - External Wall Internal Wall	0.98	0.002
EWEC01 - External Wall Outer Corner	0.96	-0.042
FRRP01 - Flat Roof Roof Parapet	0.92	0.052
FRRP02 - Flat Roof Roof Parapet	0.91	0.088
EWEC01 - External Wall Outer Corner	0.95	-0.087
EWIC01 - External Wall Inner Corner	0.63	0.031
EWCE01 - External Wall internal CEiling	0.97	0.025
EWIW01 - External Wall Internal Wall	0.98	-0.002
FSIW01 - Floor Slab Internal Wall	0.99	0.001
FSEW01 - Floor Slab External Wall	0.33	-0.041
EWHB01 - External Wall Heated Basement Ceiling	0.33	0.019
EWHB02 - External Wall Heated Basement Ceiling	0.33	0.051