

CERTIFICATE

Certified Passive House Component

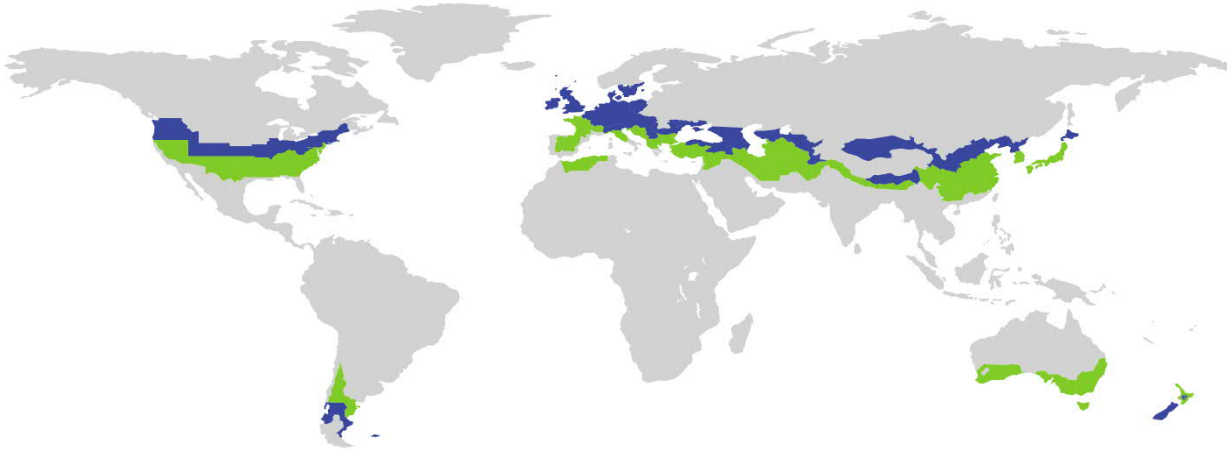
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Passive House Institute

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Category **Construction system | Solid construction**
Manufacturer **VST BUILDING TECHNOLOGIES AG
LEOPOLDSORF
AUSTRIA**
Product name **VST Passive House Formwork System**

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.



cool, temperate climate

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Determined values

Thermal heat transfer coefficient	Dimension [m]	U-value [W/(m²K)]
EW01 - External Wall	0,46	0,117
EW02 - External Wall	0,49	0,138
RO01 - Roof	0,35	0,153
RO02 - Roof	0,39	0,142
RO03 - Roof	0,57	0,104
MR01 - Monopitched Roof	0,52	0,105
BC01 - Basement Ceiling	0,54	0,109
BC02 - Basement Ceiling	0,56	0,105
FS01 - Floor Slab	0,69	0,138
FS02 - Floor Slab	0,60	0,139
FS03 - Floor Slab	0,78	0,201

Thermal bridge coefficient opaque envelope	fRsi [-]	Ψ [W/(mK)]
RORI01 - Roof Ridge	0,96	-0,033
RORI02 - Roof Ridge	0,93	0,008
EWEC01 - External Wall Outer Corner	0,89	-0,059
EWIC01 - External Wall Inner Corner	0,98	0,026
EWIW01 - External Wall Internal Wall	0,96	0,000
EWEJ01 - External Wall Element Junction	0,96	0,002
ROEA01 - Roof Eaves	0,94	-0,029
RORI01 - Roof Ridge	0,95	-0,047
ROVE01 - Roof Verge	0,92	-0,068