

# CERTIFICATE

Certified Passive House Component

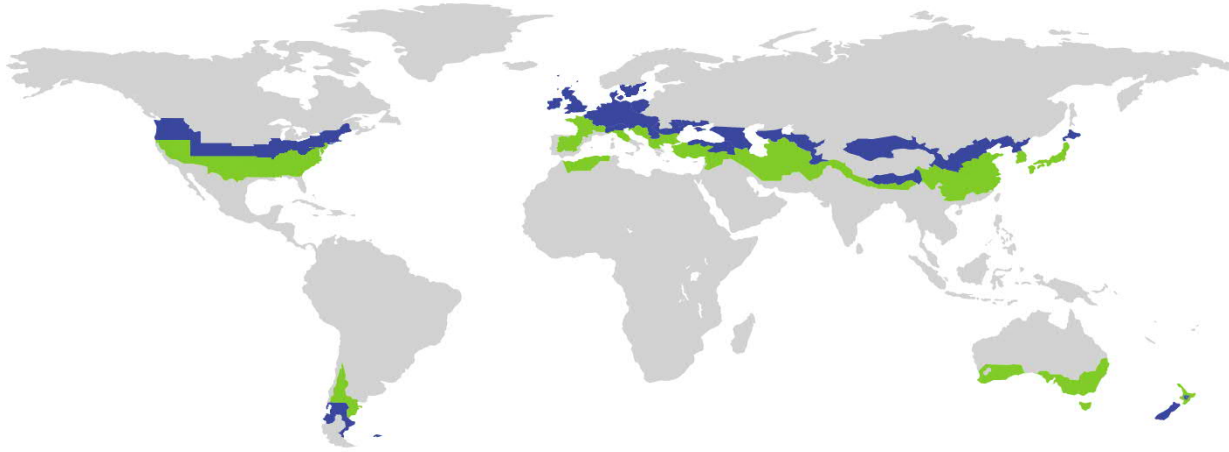
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Passive House Institute

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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

[www.passivehouse.com](http://www.passivehouse.com)

## Determined values

| <b>Thermal heat transfer coefficient</b> | <b>Dimension [m]</b> | <b>U-value [W/(m<sup>2</sup>K)]</b> |
|------------------------------------------|----------------------|-------------------------------------|
| 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                               |

| <b>Thermal bridge coefficient opaque envelope</b> | <b>fRsi [-]</b> | <b>Ψ [W/(mK)]</b> |
|---------------------------------------------------|-----------------|-------------------|
| 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            |