

# CERTIFICATE

Certified Passive House Component

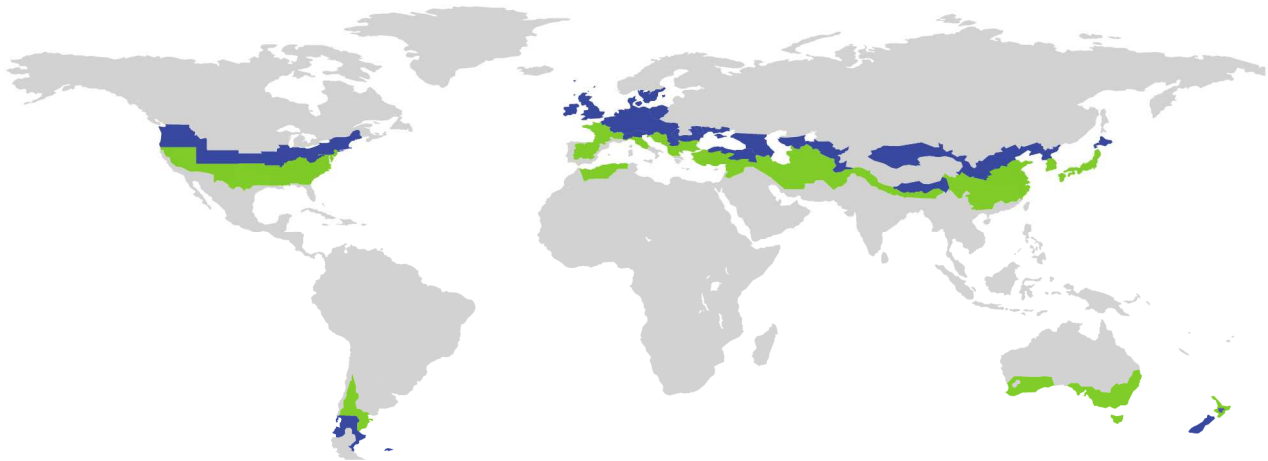
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Passive House Institute

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Category	<b>Construction system   Solid construction</b>
Manufacturer	<b>CARLSON INVESTMENTS S.A</b> <b>Warszawa</b> <b>POLAND</b>
Product name	<b>HOTBLOK Bausystem für Passivhäuser</b>

**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

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

## HOTBLOK S.A.

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## Determined values

<b>Thermal heat transfer coefficient</b>	<b>Dimension [m]</b>	<b>U-Wert [W/(m<sup>2</sup>K)]</b>
EW01 - External Wall	0.44	0.136
FR01 - Flat Roof	0.67	0.110
RO01 - Roof	0.41	0.110
BC01 - Basement Ceiling	0.52	0.149
BW01 - Basement Wall	0.45	0.187
FS01 - Floor Slab	0.42	0.151

<b>Thermal bridge coefficient opaque envelop</b>	<b>fRsi [-]</b>	<b>Ψ [W/(mK)]</b>
EWHB01 - External Wall Heated Basement Ceiling	0.96	0.006
BCIW01 - Basement Ceiling Internal Wall	0.93	-0.010
BCEW02 - Basement Ceiling External Wall	0.92	0.019
EWHB01 - External Wall Heated Basement Ceiling	0.94	0.004
EWCE01 - External Wall internal CEiling	0.95	0.004
EWEO01 - External Wall External Overhang	0.91	-0.052
EWIO01 - External Wall Internal Overhang	0.97	0.023
EWEC01 - External Wall Outer Corner	0.92	-0.064
EWIC01 - External Wall Inner Corner	0.97	0.021
EWIW01 - External Wall Internal Wall	0.96	0.001
ROEA01 - Roof Eaves	0.94	-0.021
ROVE01 - Roof Verge	0.91	-0.050
ROFI01 - Roof Firewall	0.93	-0.039
ROEA02 - Roof Eaves	0.93	-0.024
ROVE02 - Roof Verge	0.91	-0.050
ROEA03 - Roof Eaves	0.93	-0.026
ROVE03 - Roof Verge	0.92	-0.032
ROEA04 - Roof Eaves	0.95	-0.019
ROVE04 - Roof Verge	0.91	-0.050
ROFI04 - Roof Firewall	0.94	-0.035
ROEA05 - Roof Eaves	0.94	-0.017
ROVE05 - Roof Verge	0.90	-0.052
ROFI05 - Roof Firewall	0.91	-0.042
ROEA06 - Roof Eaves	0.91	-0.061
FRRP01 - Flat Roof Roof Parapet	0.91	-0.050
ROEA07 - Roof Eaves	0.91	-0.056
FRRP02 - Flat Roof Roof Parapet	0.91	-0.051
ROEA08 - Roof Eaves	0.91	-0.058
FRRP03 - Flat Roof Roof Parapet	0.90	-0.048
ROPA01 - Roof Parapet	0.94	0.007
BCPA01 - Basement Ceiling PArty wall	0.97	0.067
BCPA02 - Basement Ceiling PArty wall	0.97	0.091
FSPA01 - Floor Slab PArty wall	0.98	0.000