

# CERTIFICATE

Certified Passive House Component

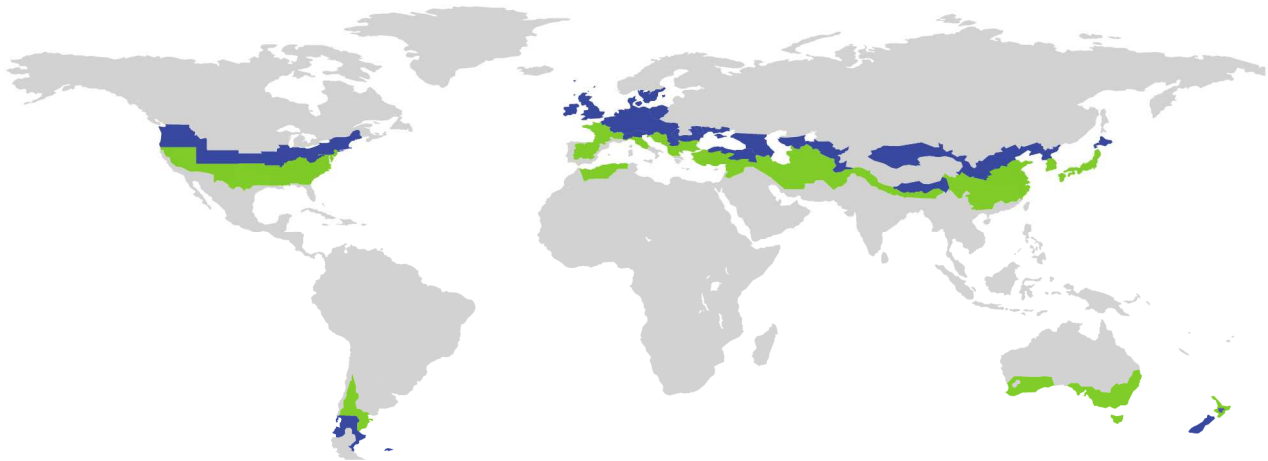
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Passive House Institute

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Category **Construction system | Steel construction**  
Manufacturer **ABC Building Systems(China)Co.,Ltd**  
**118 Ronghua Ave.(E), Gu Bei New Area,**  
**CHINA**  
Product name **ABC-TM-pGBS-1**

**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)

## 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	0.38	0.121
RO01 - Roof	0.43	0.111
FS01 - Floor Slab	0.29	0.245
BW01 - Basement Wall	0.38	0.187
BC01 - Basement Ceiling	0.33	0.234

<b>Thermal bridge coefficient opaque envelop</b>	<b>fRsi [-]</b>	<b>Ψ [W/(mK)]</b>
RORI01 - Roof Ridge	0.94	0.006
MRRIO1 - Monopitched Roof Ridge	0.95	0.004
FSPA01 - Floor Slab PArty wall	0.98	0.016
FSIW01 - Floor Slab Internal Wall	0.97	0.033
EWEC01 - External Wall Outer Corner	0.90	-0.041
EWIC01 - External Wall Inner Corner	0.97	0.022
EWCE01 - External Wall internal CEiling	0.95	0.006
EWPA01 - External Wall PArty wall	0.95	0.010
EWIW01 - External Wall Internal Wall	0.97	0.006
TCEA01 - Top Ceiling Eaves	0.93	-0.050
TCVE01 - Top Ceiling Verge	0.92	-0.046
ROEA01 - Roof Eaves	0.93	-0.030
RORI01 - Roof Ridge	0.95	-0.023
ROVE01 - Roof Verge	0.92	-0.052
ROPA01 - Roof Parapet	0.96	0.022