

# CERTIFICATE

Certified Passive House Component

ID: 1353cs03 valid until 31. December 2019

Passive House Institute  
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Category **Wall system | Insulated formwork blocks**  
Manufacturer **VARIANT-HAUS-GROUP ICF Manufacturing & Sales GmbH**  
**Frankfurt am Main**  
**GERMANY**  
Product name **VARIANT HAUS**

**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

$$U \cdot f_{PHI} \leq 0,15 \text{ W}/(\text{m}^2\text{K})$$

Temperature factor of opaque junctions

$$f_{R_{si}=0,25m^2K/W} \geq 0,86$$

Thermal bridge-free design for key connection details

$$\Psi \leq 0,01 \text{ W}/(\text{mK})$$

An airtightness concept for all components and connection details was provided



