

CERTIFICATE

Certified Passive House Component

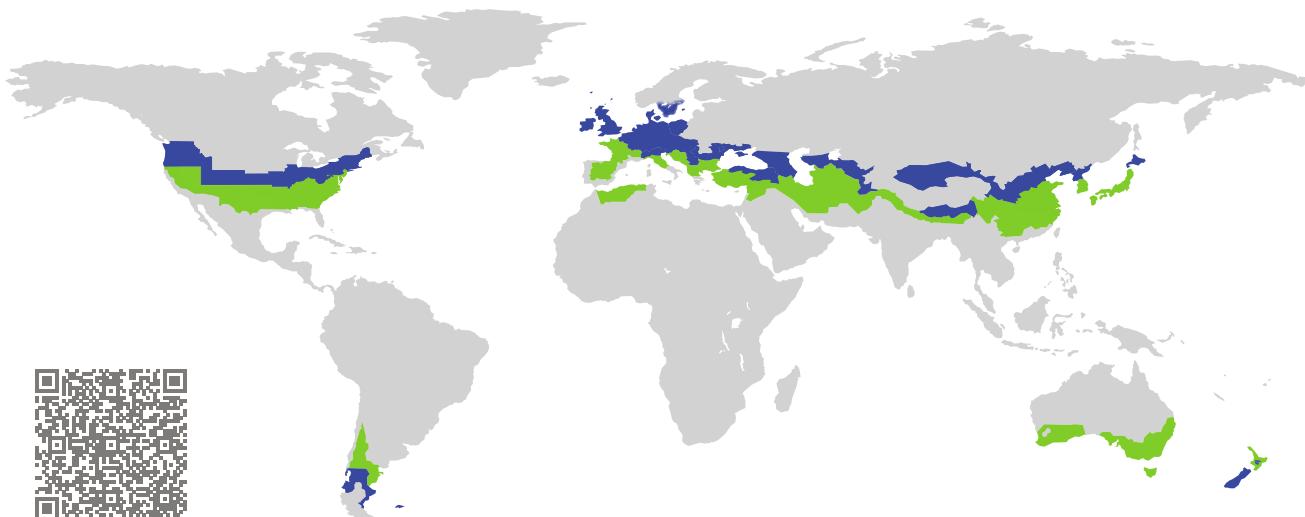
Component-ID 2325wm03 valid until 31st December 2026

Passive House Institute

Dr. Wolfgang Feist

64283 Darmstadt

Germany



Category: **Window mounting system**

Manufacturer: **WARMOTECH GmbH,
Elsterwerda,
Germany**

Product name: **Phonotherm®**

This certificate was awarded based on the following criteria for the cool, temperate climate zone

Efficiency ΔU \leq 0.05 W/(m² · K)

Hygiene $f_{Rsi} = 0.25$ \geq 0.70

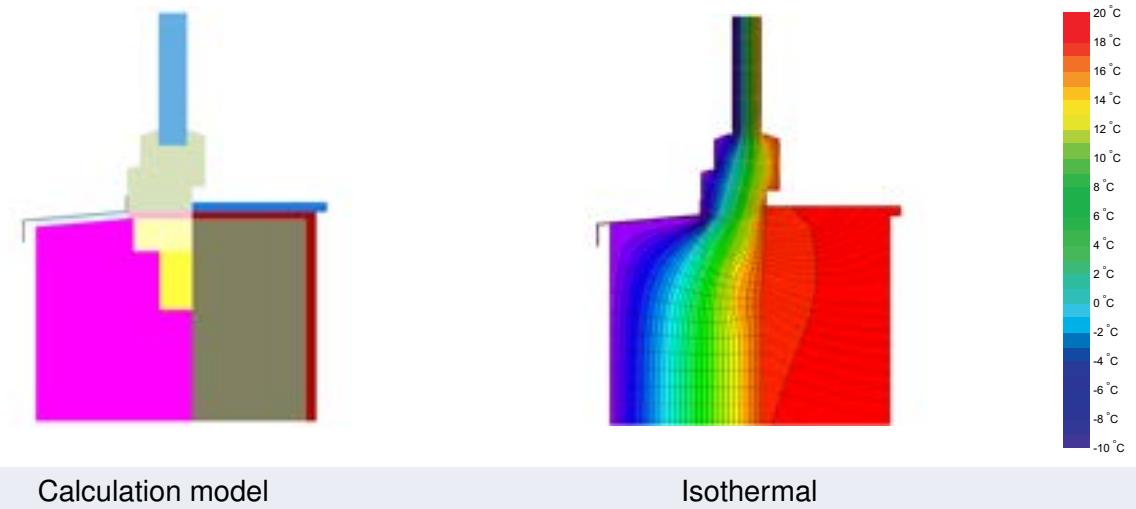


cool, temperate climate



**CERTIFIED
COMPONENT**

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Description

Window installation system made of PUR rigid foam (0.083 W/(m K)), used as a base profile in the wall plane or as a facade installation system with adhesive and screws according to the manufacturer's specifications. Heat losses through the screws were determined by 3D heat flow simulation. The effective thermal conductivity with screws is 0.0867 W/(m K).

Explanation

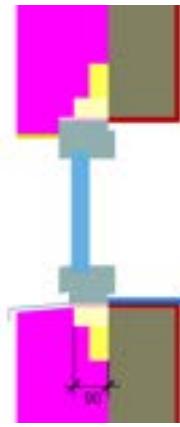
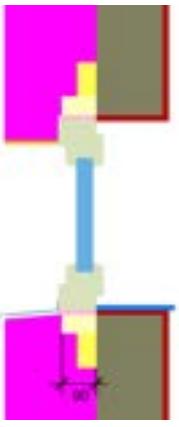
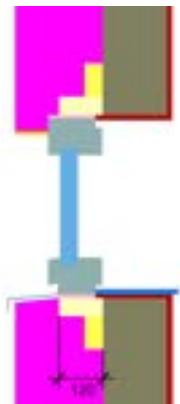
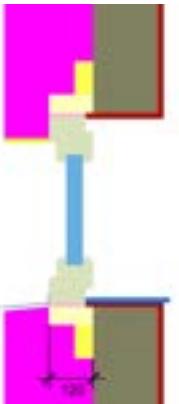
The certifiability is demonstrated by the increase of the heat transfer coefficient ΔU [W/(m².K)] caused by the installation thermal bridge (efficiency criterion) in conjunction with given installation situations and window frames as well as by the minimum temperature factor at the coldest point of the installation connection (hygiene criterion).

The heat transfer coefficients (U-values) and the thermal bridge loss coefficients (ψ -values) of the window are determined on the basis of DIN EN ISO 10077-2, the installation thermal bridges according to ISO 10211.

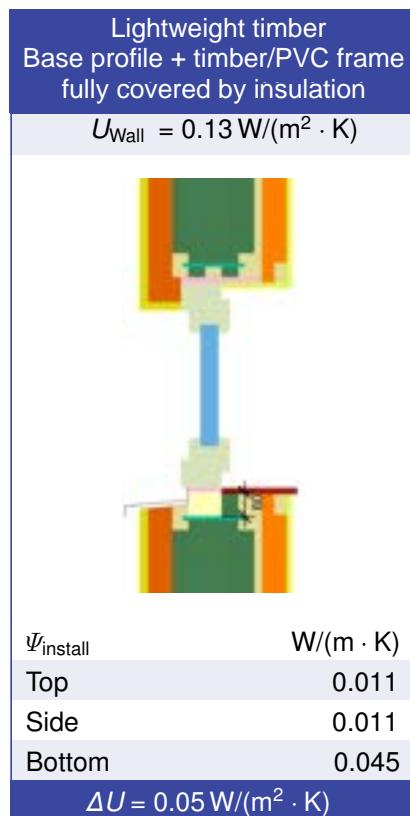
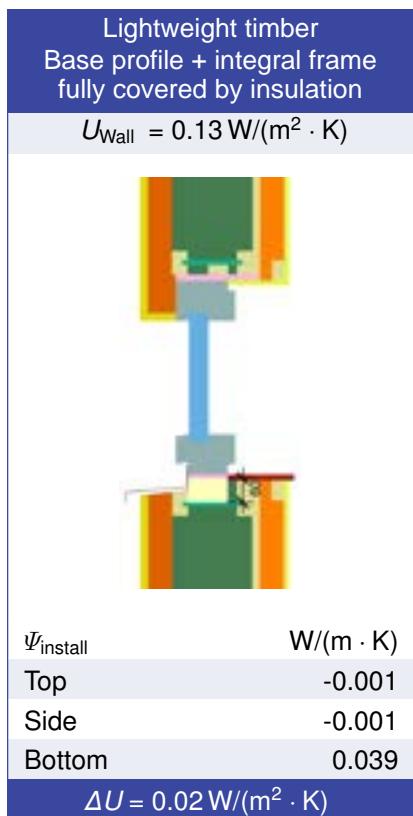
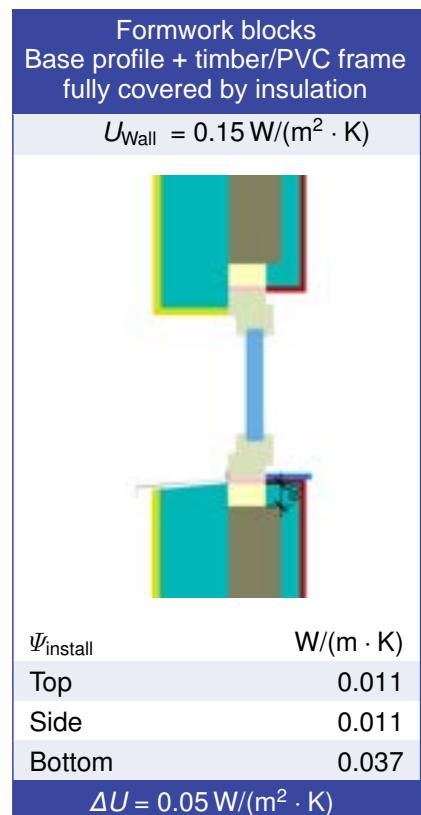
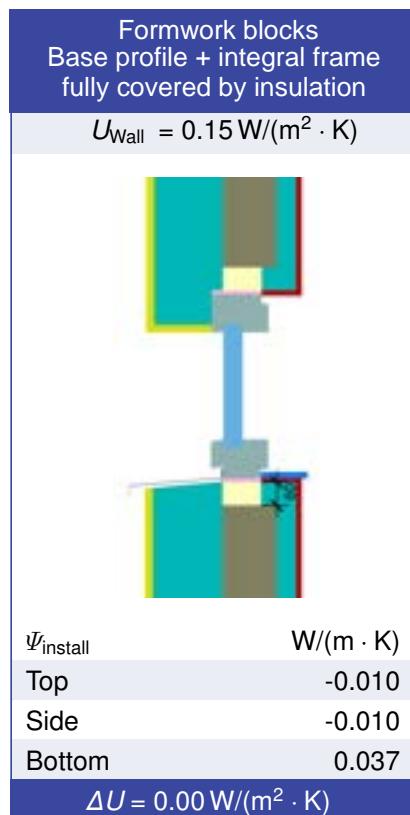
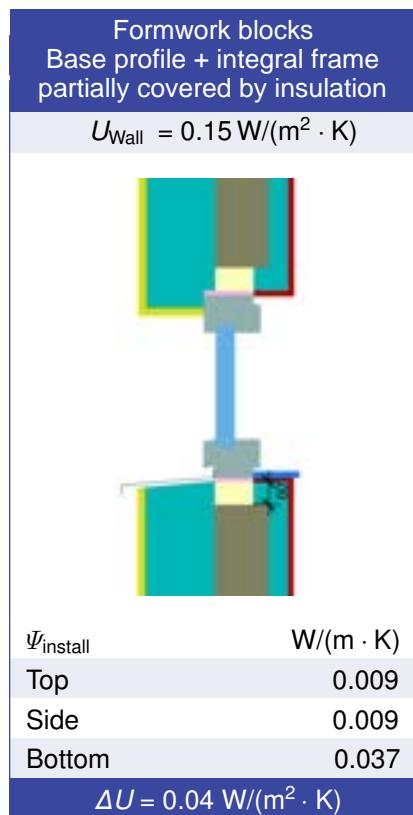
The Passive House Institute has defined international component criteria for seven climate zones. In principle, components which have been certified for climate zones with higher requirements may also be used in climates with less stringent requirements. In a particular climate zone it may make sense to use a component of a higher thermal quality which has been certified for a climate zone with more stringent requirements.

Further information relating to certification
can be found on www.passivehouse.com and passipedia.org.

Validated installations

EIFS Mounting system + integral frame partially covered by insulation $U_{\text{Wall}} = 0.13 \text{ W}/(\text{m}^2 \cdot \text{K})$	EIFS Mounting system + integral frame fully covered by insulation $U_{\text{Wall}} = 0.13 \text{ W}/(\text{m}^2 \cdot \text{K})$	EIFS Mounting system + timber/PVC frame fully covered by insulation $U_{\text{Wall}} = 0.13 \text{ W}/(\text{m}^2 \cdot \text{K})$
		
Ψ_{install} $\text{W}/(\text{m} \cdot \text{K})$ Top 0.010 Side 0.010 Bottom 0.033 $\Delta U = 0.04 \text{ W}/(\text{m}^2 \cdot \text{K})$	Ψ_{install} $\text{W}/(\text{m} \cdot \text{K})$ Top -0.010 Side -0.010 Bottom 0.033 $\Delta U = 0.00 \text{ W}/(\text{m}^2 \cdot \text{K})$	Ψ_{install} $\text{W}/(\text{m} \cdot \text{K})$ Top 0.010 Side 0.010 Bottom 0.033 $\Delta U = 0.04 \text{ W}/(\text{m}^2 \cdot \text{K})$
		
Ψ_{install} $\text{W}/(\text{m} \cdot \text{K})$ Top 0.009 Side 0.009 Bottom 0.031 $\Delta U = 0.04 \text{ W}/(\text{m}^2 \cdot \text{K})$	Ψ_{install} $\text{W}/(\text{m} \cdot \text{K})$ Top -0.010 Side -0.010 Bottom 0.031 $\Delta U = 0.00 \text{ W}/(\text{m}^2 \cdot \text{K})$	Ψ_{install} $\text{W}/(\text{m} \cdot \text{K})$ Top 0.008 Side 0.008 Bottom 0.030 $\Delta U = 0.03 \text{ W}/(\text{m}^2 \cdot \text{K})$

Validated installations



Integral Frame values		Frame width b_f mm	U -value frame U_f W/(m ² · K)	Ψ -glazing edge Ψ_g W/(m · K)	Temp. Factor $f_{Rsi=0.25}$ [-]
Bottom	(OB1)		100	0.90	0.026
Top	(OH1)		100	0.79	0.026
Lateral	(OJ1)		100	0.79	0.026
Spacer: PHI phA-Spacer				Secondary seal: Polysulfide	

Timber/PVC Frame values		Frame width b_f mm	U -value frame U_f W/(m ² · K)	Ψ -glazing edge Ψ_g W/(m · K)	Temp. Factor $f_{Rsi=0.25}$ [-]
Bottom	(OB1)		125	0.73	0.036
Top	(OH1)		125	0.73	0.036
Lateral	(OJ1)		125	0.73	0.036
Spacer: PHI phB-Spacer				Secondary seal: Polysulfide	

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