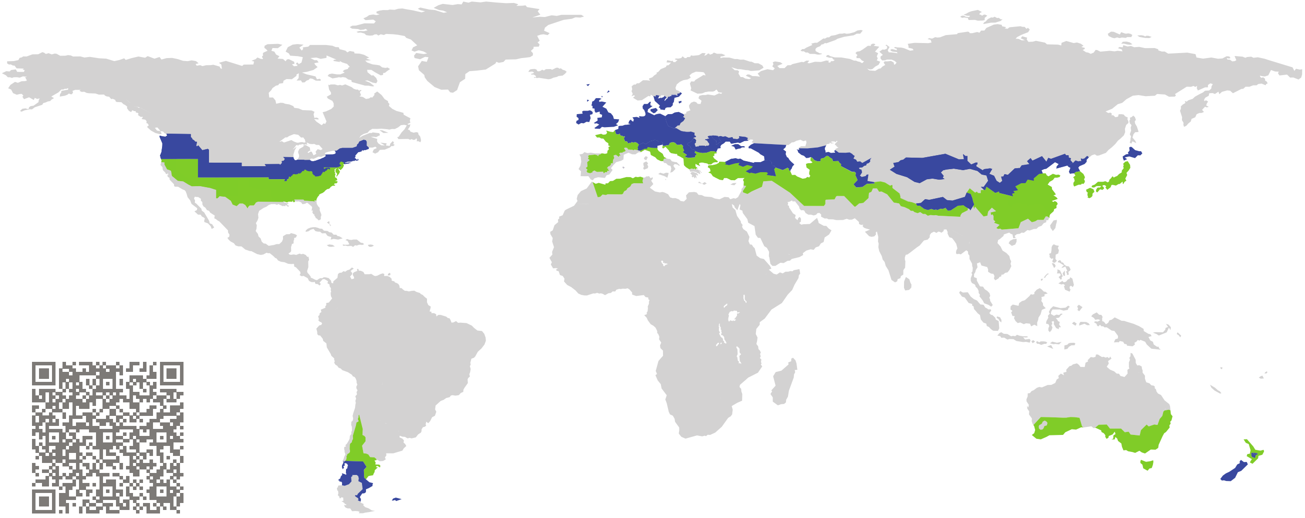
CERTIFICATE

Certified Passive House Component

Component-ID 2259wm03 valid until 31st December 2025

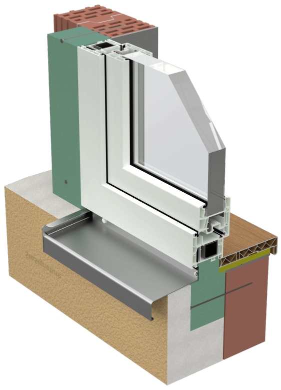
Passive House Institute
Dr. Wolfgang Feist
64283 Darmstadt
Germany



Category:	**Window mounting system**
Manufacturer:	**PM Technic Elements, Cluj-Napoca, Romania**
Product name:	**TSV Thermo Green**

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

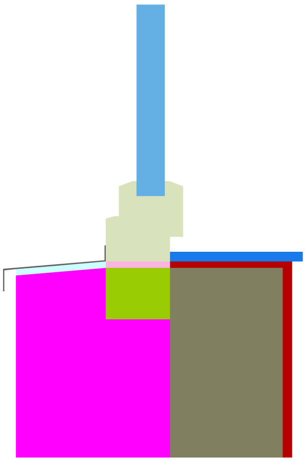
Efficiency	ΔU	$\leq$	$0.05\ W/(m^2 \cdot K)$
Hygiene	$f_{Rsi = 0.25}$	$\geq$	0.70



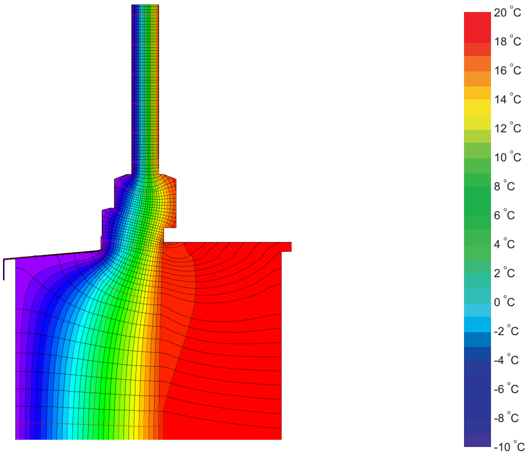
cool, temperate climate

CERTIFIED COMPONENT

Passive House Institute



Calculation model



Isothermal

Description

Pre-wall mounting system from PET foam [0.040 W/(m.K)], 80 mm high. Assembly by gluing and screwing. A safety margin surcharge of 1,25 according to ISO 10077-2 is included in the thermal conductivity. Additional thermal losses by screws, determined by 3D heat flux simulation, are also included in the conductivity of the PET-foam. Effective thermal conductivity considering safety margin and influence of screws: 0.54975W/(m.K).

Explanation

The certifiability is demonstrated by the increase of the heat transfer coefficient ΔU [W/(m^2.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.

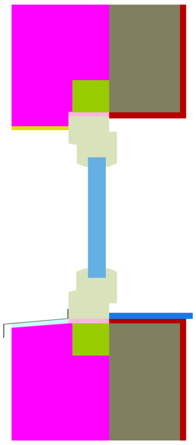
The Passive House Institute has defined international component criteria for seven climate zones. In principle, components which have been certified for climate zones with higher requirements may also be used in climates with less stringent requirements. In a particular climate zone it may make sense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

Mounting System Timber/PVC partially covered by insulation

$U_{\text{Wall}} = 0.13\ \text{W/(m}^2 \cdot \text{K)}$

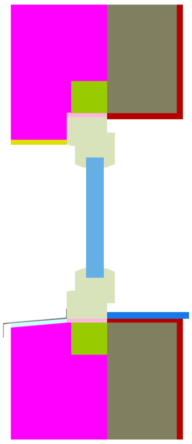


Ψ_{install}	W/(m · K)
Top	0.015
Side	0.015
Bottom	0.026

$\Delta U = 0.05\ \text{W/(m}^2 \cdot \text{K)}$

Mounting System Timber/PVC completely covered by insulation

$U_{\text{Wall}} = 0.13\ \text{W/(m}^2 \cdot \text{K)}$

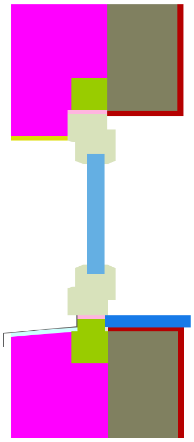


Ψ_{install}	W/(m · K)
Top	0.005
Side	0.005
Bottom	0.026

$\Delta U = 0.03\ \text{W/(m}^2 \cdot \text{K)}$

Mounting System Timber/PVC with undersill

$U_{\text{Wall}} = 0.13\ \text{W/(m}^2 \cdot \text{K)}$



Ψ_{install}	W/(m · K)
Top	0.005
Side	0.005
Bottom	0.064

$\Delta U = 0.05\ \text{W/(m}^2 \cdot \text{K)}$

Frame values			Frame width b_f mm	U-value frame U_f W/(m² · K)	Ψ-glazing edge Ψ_g W/(m · K)	Temp. Factor $f_{Rsi=0.25}$ [-]
Bottom	(OB1)		125	0.73	0.036	0.73
Top	(OH1)		125	0.73	0.036	0.73
Lateral	(OJ1)		125	0.73	0.036	0.73

Spacer: PHI phB-Spacer Secondary seal: Polysulfide