CERTIFICATE

Certified Passive House Component

Component-ID 2390cw03 valid until 31st December 2025

Passive House Institute
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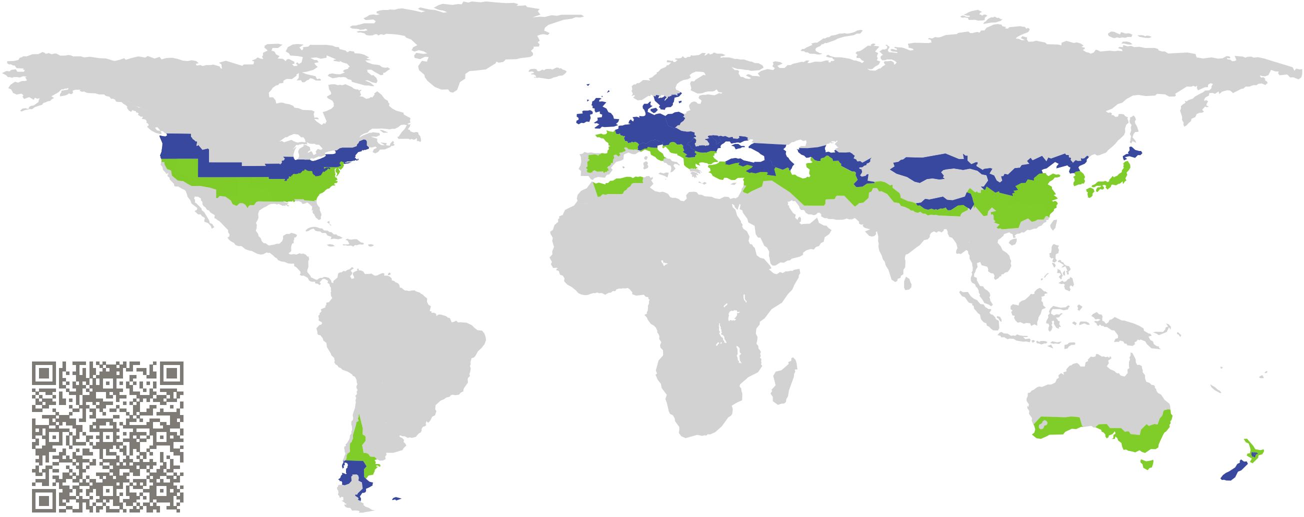
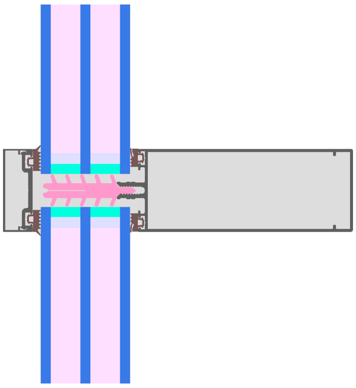
Germany



Category:	**Curtain Wall**
Manufacturer:	**Europa Profil SA, Inofita, Viotia, Greece**
Product name:	**ECW50**



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

Comfort $U_{CW} = 0.80 \leq 0.80\,\mathrm{W/(m^2\,K)}$

$U_{CW,\mathrm{installed}} \leq 0.85\,\mathrm{W/(m^2\,K)}$

with $U_g = 0.70\,\mathrm{W/(m^2\,K)}$

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

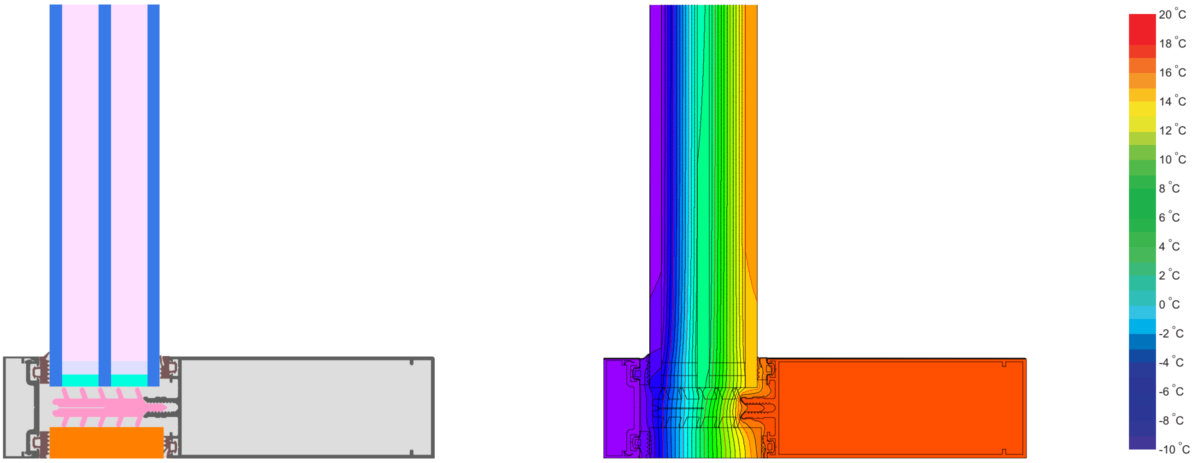
cool, temperate climate

phA+

CERTIFIED COMPONENT

Passive House Institute

Passive House efficiency class	phE	phD	phC	phB	phA	phA+



Calculation model

Isothermal

Description

Aluminium curtain wall system 50 mm wide insulated with Nomatec XPET insulation (0,029 W/(mK)). Measured value of 0,21 W/(m²K) applied for pressure plate screws; standard value of 0,003 W/K applied for non-metallic glass carrier without screws. Edge bond: Swisspacer Ultimate with butyl secondary seal.

Explanation

The element U-values were calculated for the test element size of 1.20 m × 2.50 m with U_g = 0.70 W/(m^2 K). If a higher quality glazing is used, the element U-values will improve as follows:

Glazing	U_g =	0.70	0.64	0.58	0.52	W/(m^2 K)
		↓	↓	↓	↓	
Element	U_{CW}	0.80	0.74	0.68	0.63	W/(m^2 K)

Transparent building components are sorted into efficiency classes depending on the heat losses through the opaque part. The frame U-Values, frame widths, thermal bridges at the glazing edge and the glazing edge lengths are included in these heat losses. A more detailed report of the calculations performed in the context of certification is available from the manufacturer.

The Passive House Institute has defined international component criteria for seven climate zones. In principle, components that have been certified for climate zones with higher thermal 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.

Frame values	Frame width b_f mm	*U*-value frame U_f [1] W/(m^2 K)	Ψ-glazing edge Ψ_g W/(m K)	Temp. Factor $f_{Rsi=0.25}$ [-]
Mullion (0M1) fixed	50	0.84	0.035	0.81
Transom (0T1) fixed	50	0.84	0.036	0.83
Bottom (FB1) fixed	50	0.85	0.035	0.82
Top (FH1) fixed	50	0.85	0.035	0.82
Lateral (FJ1) fixed	50	0.85	0.035	0.81

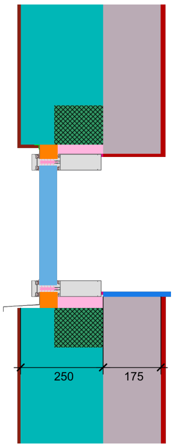
Spacer: SWISSPACER Ultimate   Secondary seal: Butyl

Thermal glass carrier bridge[2] χ_{GT} = 0.003 W/K

Validated installations

Exterior insulation and finishing system (EIFS) (fixed glazed)

U_{Wall} = 0.13 W/(m^2 K)

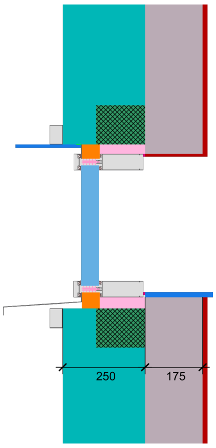


$\Psi_{install}$	W/(m K)
Top	0.024
Left	0.019
Right	0.019
Bottom	0.025

$U_{W,installed}$ = 0.82 W/(m^2 K)

Ventilated facade (fixed glazed)

U_{Wall} = 0.13 W/(m^2 K)

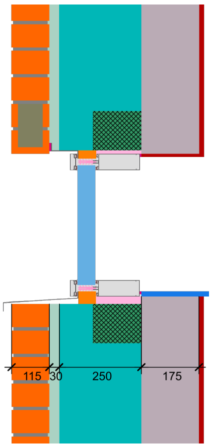


$\Psi_{install}$	W/(m K)
Top	0.024
Left	0.019
Right	0.019
Bottom	0.025

$U_{W,installed}$ = 0.82 W/(m^2 K)

Cavity wall (fixed glazing)

U_{Wall} = 0.13 W/(m^2 K)



$\Psi_{install}$	W/(m K)
Top	0.021
Left	0.018
Right	0.018
Bottom	0.023

$U_{W,installed}$ = 0.82 W/(m^2 K)

[1] Includes ΔU = 0.21 W/(m^2 K). Standard value

[2] Standard value. Glass carrier type: Non-metallic