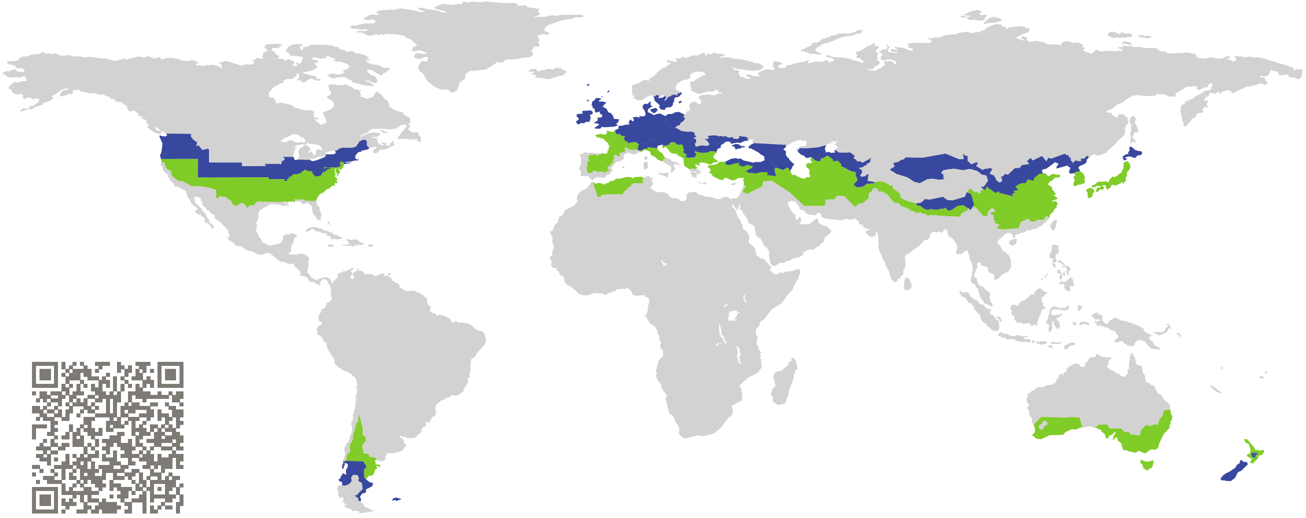
CERTIFICATE

Certified Passive House Component

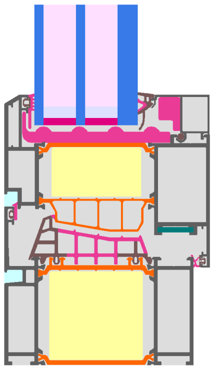
Component-ID 1925wi03 valid until 31st December 2026

Passive House Institute
Dr. Wolfgang Feist
64283 Darmstadt
Germany



Category:	**Window Frame**
Manufacturer:	**Foshan MCBOS Co., Ltd, Foshan, China**
Product name:	**MCBOS-K18**

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



Comfort	$U_W = 0.78$	$\leq$	$0.80\,\mathrm{W/(m^2\,K)}$
	$U_{W,\mathrm{installed}}$	$\leq$	$0.85\,\mathrm{W/(m^2\,K)}$
	with U_g	$=$	$0.70\,\mathrm{W/(m^2\,K)}$
Hygiene	$f_{Rsi=0.25}$	$\geq$	0.70

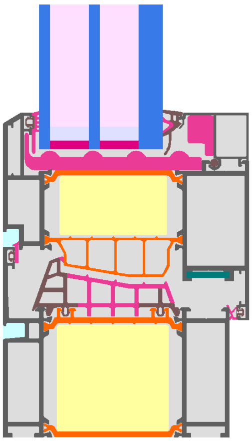
cool, temperate climate

phB

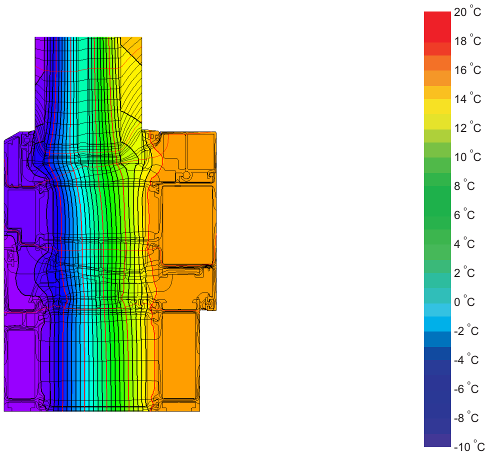
CERTIFIED COMPONENT

Passive House Institute

Passive House efficiency class	phE	phD	phC	phB	phA



Calculation model



Isothermal

Description

Aluminium frame with thermal separation (low lambda PA 0.21 W/(mK)) and insulation (Kooltherm 0.022 W/(mK)); Pane thickness: 57 mm (5/18/5/18/11); Rebate depth: 17 mm; Spacer: Technoform-Spacer SP16; Secondary sealing: Silicone Spacer: Technoform-Spacer SP16 with silicone secondary seal.

Explanation

The window U-values were calculated for the test window size of 1.23 m × 1.48 m with U_g = 0.70 W/(m^2 K). If a higher quality glazing is used, the window U-values will improve as follows:

Glazing	U_g =	0.70	0.64	0.58	0.54	W/(m^2 K)
		↓	↓	↓	↓	
Window	U_W =	0.78	0.75	0.71	0.69	W/(m^2 K)

Transparent building components are classified 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 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.

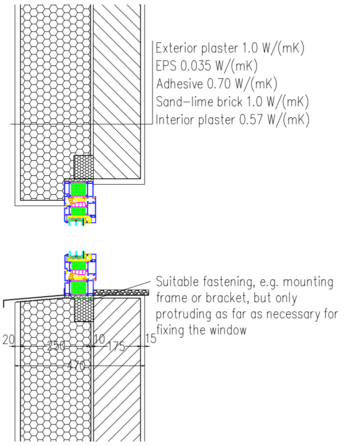
Further information relating to certification
can be found on www.passivehouse.com and passipedia.org.

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 $f_{Rsi=0.25}$ [-]
Transom (1T1) 1 casement	168	0.76	0.031	0.75
Bottom (OB1)	150	0.73	0.030	0.76
Head (OH1)	150	0.73	0.030	0.76
Jamb (OJ1)	150	0.73	0.030	0.76
Spacer: Technoform-Spacer SP16		Secondary seal: Silicone		

Validated installations

Exterior insulation and finishing system

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

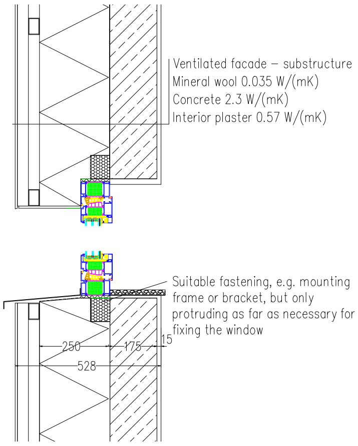


Ψ_{install}	W/(m K)
Top	0.017
Side	0.017
Bottom	0.024

$U_{W,\text{installed}} = 0.84\,\text{W/(m}^2\,\text{K)}$

Ventilated facade

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

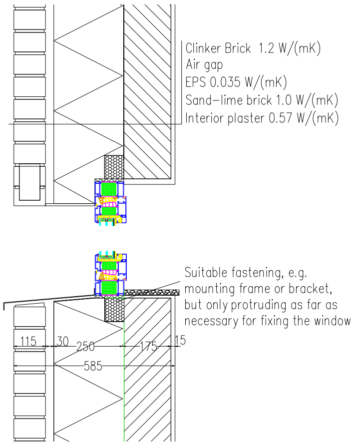


Ψ_{install}	W/(m K)
Top	0.016
Side	0.016
Bottom	0.024

$U_{W,\text{installed}} = 0.83\,\text{W/(m}^2\,\text{K)}$

Cavity wall

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



Ψ_{install}	W/(m K)
Top	0.016
Side	0.016
Bottom	0.023

$U_{W,\text{installed}} = 0.83\,\text{W/(m}^2\,\text{K)}$

Disclaimer: The Passive House Institute GmbH (PHI) conducts heat-transfer analyses in accordance with the standards set out in Criteria and Algorithms for Certified Passive House Components: Transparent Building Components and Opening Elements in the Building Envelope, based on information provided by the manufacturer. PHI does not verify on-site implementation. It is the responsibility of the project leader to ensure that installed components match the certified specifications in terms of geometry, configuration, and materials. Manufacturers must make full product information available upon request to parties involved in a construction project. These parties may compare the provided information with project documentation and perform on-site inspections as part of the quality-assurance process.