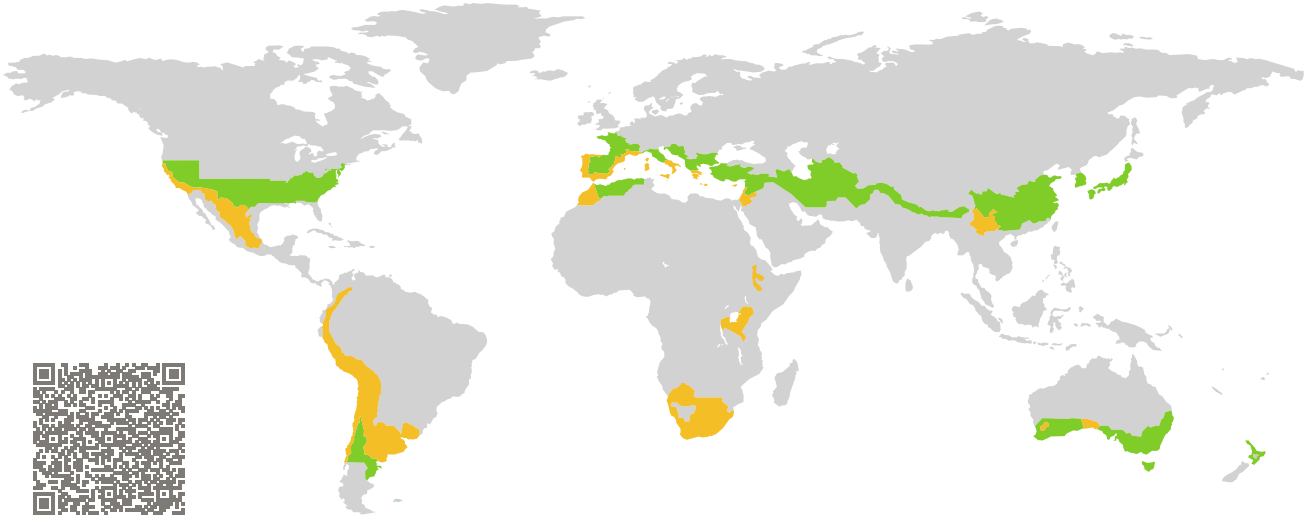
CERTIFICATE

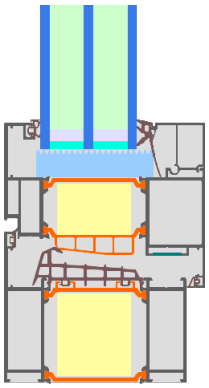
Certified Passive House Component

Component-ID 2092wi04 valid until 31st December 2025

Passive House Institute
Dr. Wolfgang Feist
64283 Darmstadt
Germany



Category:	**Window Frame**
Manufacturer:	**ZheJiang Roomeye Energy Saving Doors and Windows Technology Co., Ltd., Huzhou, China**
Product name:	**AT96**



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

Comfort	U_W = 0.97	$\leq$	1.00 W/(m^2 K)
	$U_{W,\text{installed}}$	$\leq$	1.05 W/(m^2 K)
	with U_g	=	0.90 W/(m^2 K)
Hygiene	$f_{Rsi=0.25}$	$\geq$	0.65

warm, temperate climate

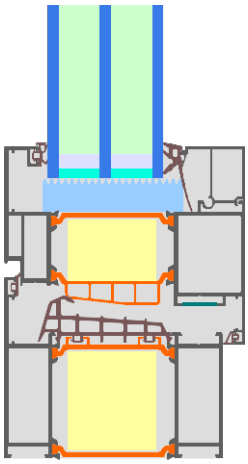
phC

CERTIFIED COMPONENT

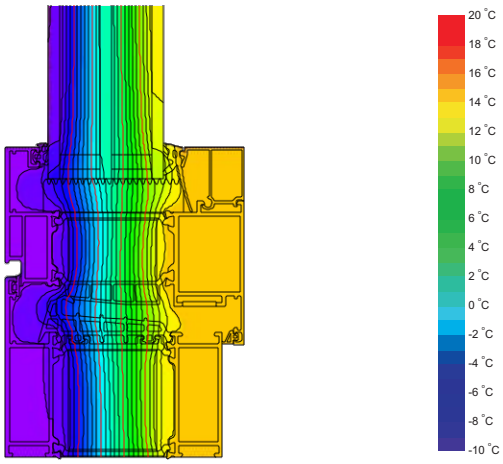
Passive House Institute

Passive House efficiency class	phE	phD	phC	phB	phA

www.passivehouse.com



Calculation model



Isothermal

Description

Aluminium frame with thermal separation (Technoform Low Lambda PA 0.21 W/(mK)) and insulation (Kooltherm 0.022 W/(mK)); Pane thickness: 51 mm (5/18/5/5/18/5), rebate depth: 14 mm. Spacer: Technoform SP16 with butyl secondary seal.

Explanation

The window U-values were calculated for the test window size of 1.23 m × 1.48 m with U_g = 0.90 W/(m^2 K). If a higher quality glazing is used, the window U-values will improve as follows:

Glazing	U_g =	0.90	0.70	0.64	0.52	W/(m^2 K)
		↓	↓	↓	↓	
Window	U_W =	0.97	0.84	0.81	0.73	W/(m^2 K)

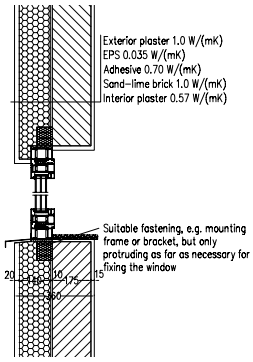
Transparent building components are classified into efficiency classes depending on the heat losses through the opaque part. The frame U-Values, frame widths, thermal bridges at the glazing edge, and the glazing edge lengths are included in these heat losses. A more detailed report of the calculations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

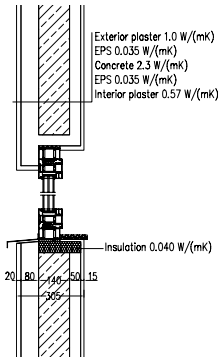
Validated installations

Exterior insulation and finishing system (EIFS) (operable)	
U_{Wall} = 0.23 W/(m² K)	



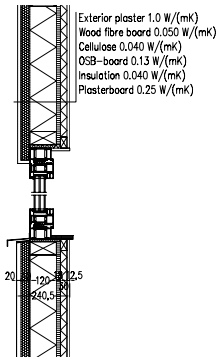
$\Psi_{install}$	W/(m K)
Top	0.010
Side	0.010
Bottom	0.018
$U_{W,installed}$ = 1.01 W/(m² K)	

Formwork blocks (operable)	
U_{Wall} = 0.25 W/(m² K)	



$\Psi_{install}$	W/(m K)
Top	0.012
Side	0.012
Bottom	0.025
$U_{W,installed}$ = 1.02 W/(m² K)	

Lightweight timber (operable)	
U_{Wall} = 0.25 W/(m² K)	



$\Psi_{install}$	W/(m K)
Top	0.016
Side	0.016
Bottom	0.029
$U_{W,installed}$ = 1.03 W/(m² 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 $f_{Rsi=0.25}$ [-]
Mullion 1 casement	(1M1)		162	0.92	0.024	0.73
Bottom	(OB1)		138	0.94	0.023	0.75
Top	(OH1)		138	0.94	0.023	0.75
Lateral	(OJ1)		138	0.94	0.023	0.75
Spacer: Technoform-Spacer SP16				Secondary seal: Butyl		