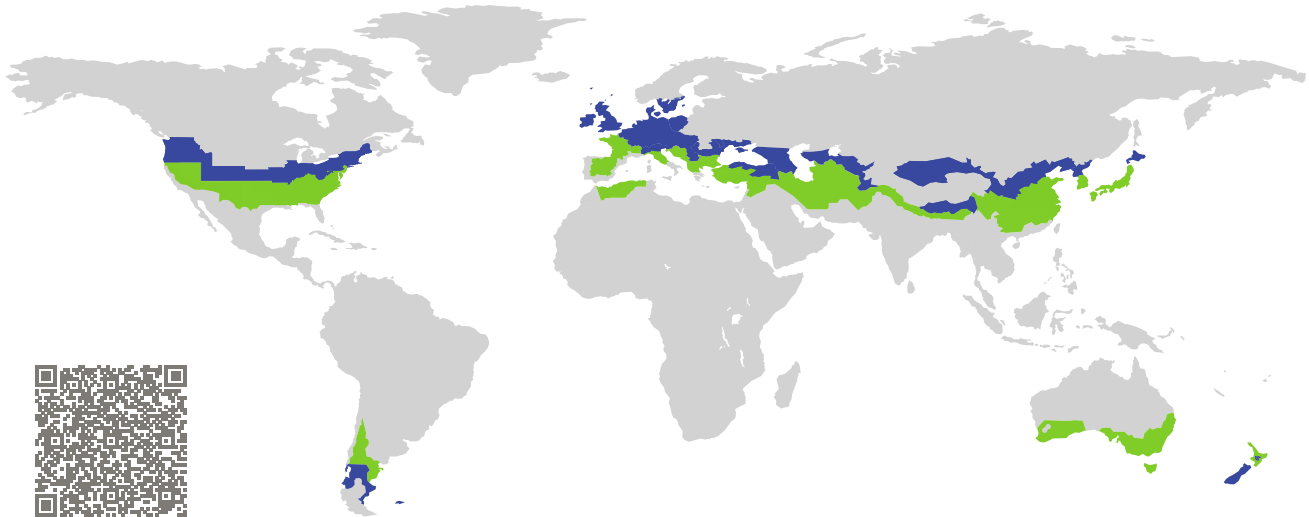


CERTIFICATE

Certified Passive House Component

Component-ID 1915wi03 valid until 31st December 2025

Passive House Institute
Dr. Wolfgang Feist
64283 Darmstadt
Germany

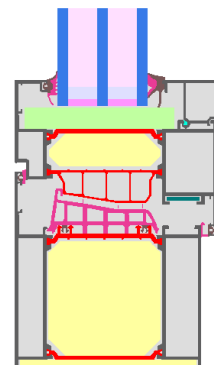


Category: **Window Frame**
Manufacturer: **China Construction Eighth Bureau
Construction Technology,
Jinan,
China**
Product name: **JC103**

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

Comfort $U_{W=0.78} \leq 0.80 \text{ W}/(\text{m}^2 \text{ K})$
 $U_{W,\text{installed}} \leq 0.85 \text{ W}/(\text{m}^2 \text{ K})$
with $U_g = 0.70 \text{ W}/(\text{m}^2 \text{ K})$

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



cool, temperate climate



**CERTIFIED
COMPONENT**

Passive House Institute

Passive House
efficiency class

phE

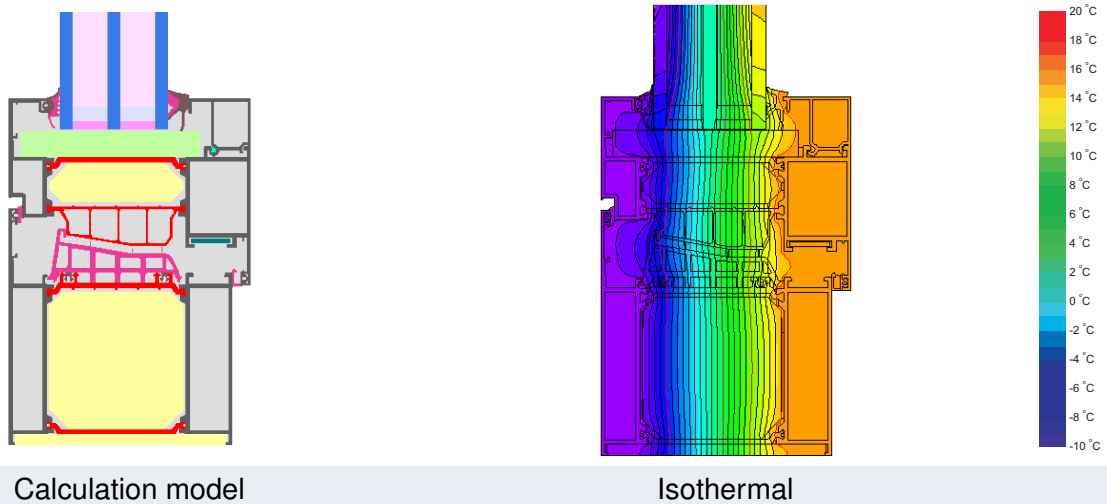
phD

phC

phB

phA

www.passivehouse.com



Calculation model Isothermal

Description

Thermally separated aluminium frame, insulated by phenolic foam, 0.022 W/(mK) and PE-foam, 0.036 W/(mK) in the glazing rebate. Pane thickness: 50 mm (6/16/6/16/6), rebate depth: 14 mm. Spacer: Technoform-Spacer SP16.

Explanation

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

Glazing	$U_g =$	0.70	0.66	0.60	0.56	W/(m ² K)
		↓	↓	↓	↓	
Window	$U_w =$	0.78	0.76	0.72	0.70	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

Ventilated facade (operable)		Exterior insulation and finishing system (EIFS) (operable)		Cavity wall (operable)	
$U_{Wall} = 0.13 \text{ W}/(\text{m}^2 \text{ K})$		$U_{Wall} = 0.13 \text{ W}/(\text{m}^2 \text{ K})$		$U_{Wall} = 0.13 \text{ W}/(\text{m}^2 \text{ K})$	
<p>Ventilated facade – substructure Mineral wool 0.035 W/(mK) Concrete 2.3 W/(mK) Interior plaster 0.57 W/(mK)</p>		<p>Exterior plaster 1.0 W/(mK) EPS 0.035 W/(mK) Adhesive 0.70 W/(mK) Sand-lime brick 1.0 W/(mK) Interior plaster 0.57 W/(mK)</p>		<p>Clinker Brick 1.2 W/(mK) Air gap EPS 0.035 W/(mK) Sand-lime brick 1.0 W/(mK) Interior plaster 0.57 W/(mK)</p>	
<p>Suitable fastening, e.g. mounting frame or bracket, but only protruding as far as necessary for fixing the window</p>		<p>Suitable fastening, e.g. mounting frame or bracket, but only protruding as far as necessary for fixing the window</p>		<p>Suitable fastening, e.g. mounting frame or bracket, but only protruding as far as necessary for fixing the window</p>	
$\Psi_{install}$	W/(m K)	$\Psi_{install}$	W/(m K)	$\Psi_{install}$	W/(m K)
Top	0.015	Top	0.016	Top	0.015
Side	0.015	Side	0.016	Side	0.015
Bottom	0.022	Bottom	0.018	Bottom	0.021
$U_{W, installed} = 0.83 \text{ W}/(\text{m}^2 \text{ K})$		$U_{W, installed} = 0.83 \text{ W}/(\text{m}^2 \text{ K})$		$U_{W, installed} = 0.83 \text{ W}/(\text{m}^2 \text{ K})$	

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 $f_{Rsi=0.25}$ [-]
Mullion 2 casements	(2M1)	193	0.82	0.032	0.75
Bottom	(OB1)	160	0.72	0.032	0.75
Top	(OH1)	160	0.72	0.032	0.75
Lateral	(OJ1)	160	0.72	0.032	0.75
Spacer: Technoform-Spacer SP16			Secondary seal: Polysulfide		

