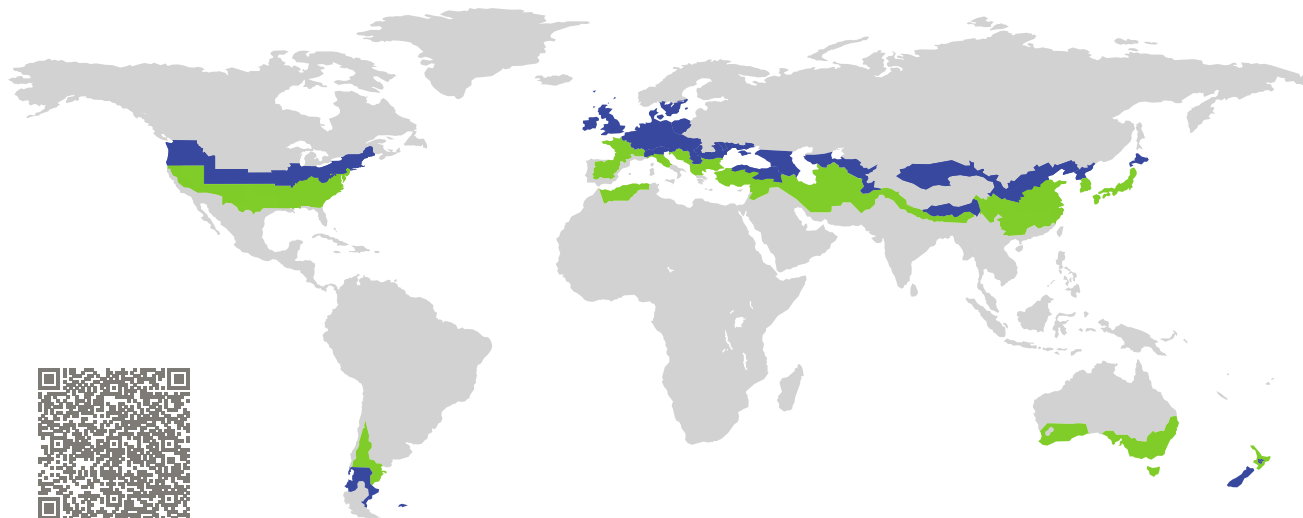


CERTIFICATE

Certified Passive House Component

Component-ID 2382wi03 valid until 31st December 2025

Passive House Institute
Dr. Wolfgang Feist
64283 Darmstadt
Germany

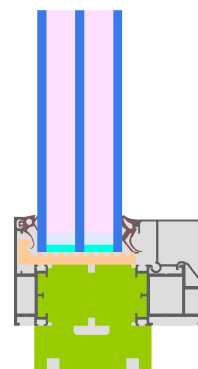


Category: **Fixed window**
Manufacturer: **Heilongjiang Deyuda Windows Co., Ltd., Harbin (Heilongjiang Province), China**
Product name: **DeYuda PU95/105 Passive fixed**

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

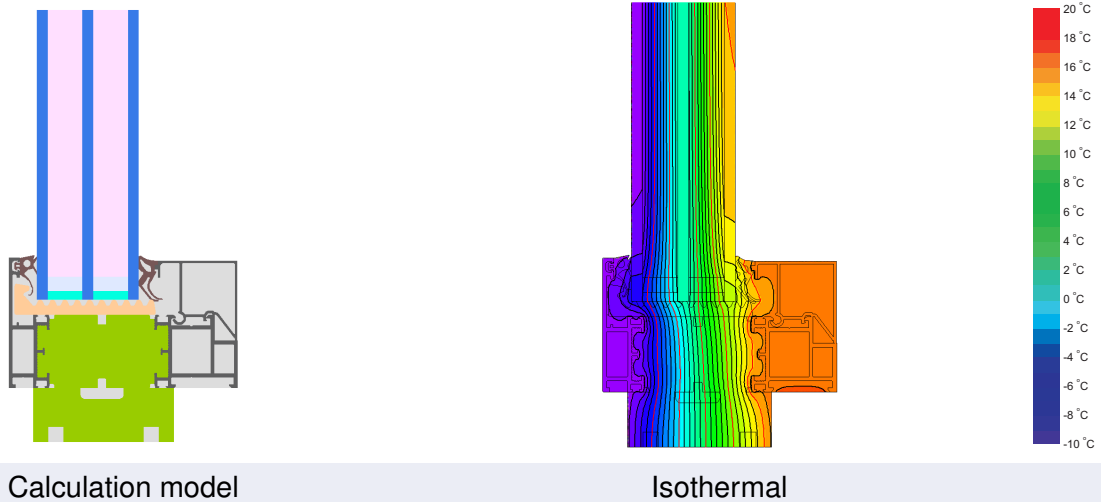
phD

phC

phB

phA

www.passivehouse.com



Calculation model | Isothermal

Description

Thermally broken aluminum alloy frame with organic polymer polyurethane core insulation (0,049 W/(m.K)). The profile is available in 95 mm or 105 mm width. The 95 mm variant has an U_f -value of 0.74 W/m²K for the sill profile and 0.74 W/m²K for the head and jamb section. Pane thickness: 47 mm (5/16/5/16/5). Rebate depth: 16 mm. Spacer: Technoform-Spacer SP16 with butyl as 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/(m² 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	0.73	0.68	0.65	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 (fixed glazing)		Exterior insulation and finishing system (EIFS) (fixed glazed)		Cavity wall (fixed glazing)	
$U_{Wall} = 0.13 \text{ W}/(\text{m}^2 \text{ K})$		$U_{Wall} = 0.13 \text{ W}/(\text{m}^2 \text{ K})$		$U_{Wall} = 0.13 \text{ W}/(\text{m}^2 \text{ K})$	
<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	0.021	Top	0.014	Top	0.016
Side	0.015	Side	0.014	Side	0.016
Bottom	0.015	Bottom	0.021	Bottom	0.021
$U_{W, installed} = 0.83 \text{ W}/(\text{m}^2 \text{ K})$		$U_{W, installed} = 0.82 \text{ W}/(\text{m}^2 \text{ K})$		$U_{W, installed} = 0.83 \text{ W}/(\text{m}^2 \text{ K})$	

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 1 casement	(1M1)	128	0.81	0.026	0.78
Bottom fixed	(FB1)	85	0.74	0.026	0.78
Top fixed	(FH1)	60	0.75	0.026	0.77
Lateral fixed	(FJ1)	60	0.75	0.026	0.77
Bottom	(OB1)	130	0.82	0.026	0.77
Top	(OH1)	105	0.83	0.026	0.77
Lateral	(OJ1)	105	0.83	0.026	0.77
Spacer: Technoform-Spacer SP16			Secondary seal: Butyl		

