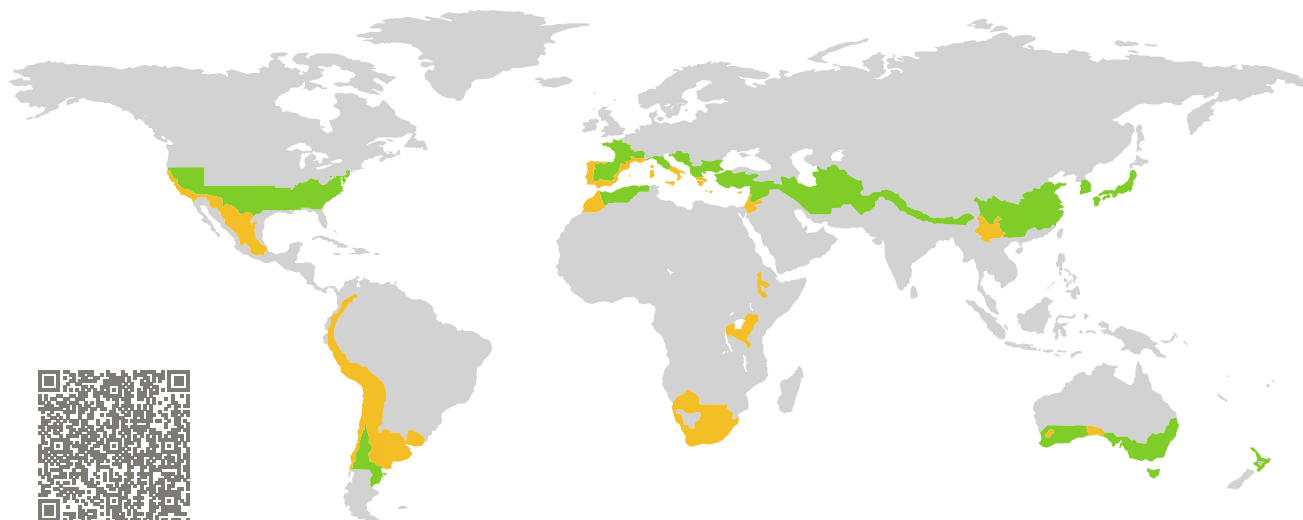


CERTIFICATE

Certified Passive House Component

Component-ID 2149wi04 valid until 31st December 2025

Passive House Institute
Dr. Wolfgang Feist
64283 Darmstadt
Germany

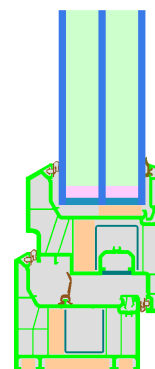


Category: **Window Frame**
Manufacturer: **Ege Profil Tic.ve San. A.S., trading as
Deceuninck TR,
Izmir,
Turkey**
Product name: **Legend Art**

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

Comfort $U_{W=1.00} \leq 1.00 \text{ W}/(\text{m}^2 \text{ K})$
 $U_{W,\text{installed}} \leq 1.05 \text{ W}/(\text{m}^2 \text{ K})$
with $U_g = 0.90 \text{ W}/(\text{m}^2 \text{ K})$

Hygiene $f_{Rsi=0.25} \geq 0.65$



Passive House
efficiency class

phE

phD

phC

phB

phA

www.passivehouse.com

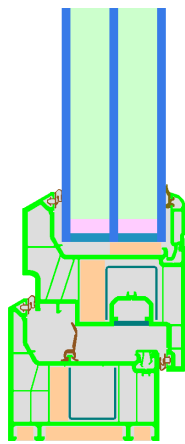
warm, temperate climate



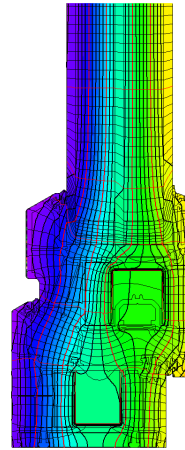
ph B

**CERTIFIED
COMPONENT**

Passive House Institute



Calculation model



Isothermal

Description

PVC frame with Steel Reinforcement and insulation (XPS Foamboard 2000, $\lambda = 0.036 \text{ W/(mK)}$) inside frame and sash. The hygiene criterion isn't met at the mullion. Pane thickness: 48 mm (4/18/4/18/4), rebate depth: 23 mm. Spacer: SWISSPACER Ultimate with butyl as secondary seal.

Explanation

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

Glazing	$U_g =$	0.90	0.80	0.70	0.60	$\text{W/(m}^2 \text{ K)}$
		↓	↓	↓	↓	
Window	$U_W =$	1.00	0.93	0.86	0.79	$\text{W/(m}^2 \text{ K)}$

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

Formwork blocks (operable)		Lightweight timber (operable)		Exterior insulation and finishing system (EIFS) (operable)	
$U_{\text{Wall}} = 0.25 \text{ W}/(\text{m}^2 \text{ K})$		$U_{\text{Wall}} = 0.25 \text{ W}/(\text{m}^2 \text{ K})$		$U_{\text{Wall}} = 0.23 \text{ W}/(\text{m}^2 \text{ K})$	
<p>Exterior plaster 1.0 W/(mK) EPS 0.035 W/(mK) Concrete 2.3 W/(mK) EPS 0.035 W/(mK) Interior plaster 0.57 W/(mK)</p> <p>Insulation 0.040 W/(mK)</p> <p>20 80 140 50 15 505</p>		<p>Exterior plaster 1.0 W/(mK) Wood fibre board 0.050 W/(mK) Cellulose 0.040 W/(mK) OSB-board 0.13 W/(mK) Insulation 0.040 W/(mK) Plasterboard 0.25 W/(mK)</p> <p>20 40 120 16 22.5 240 50</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>Suitable fastening, e.g. mounting frame or bracket, but only protruding as far as necessary for fixing the window</p> <p>20 70 40 175 15 360</p>	
Ψ_{install}	W/(m K)	Ψ_{install}	W/(m K)	Ψ_{install}	W/(m K)
Top	0.004	Top	0.006	Top	0.003
Side	0.004	Side	0.006	Side	0.003
Bottom	0.021	Bottom	0.025	Bottom	0.020
$U_{W,\text{installed}} = 1.02 \text{ W}/(\text{m}^2 \text{ K})$		$U_{W,\text{installed}} = 1.03 \text{ W}/(\text{m}^2 \text{ K})$		$U_{W,\text{installed}} = 1.02 \text{ W}/(\text{m}^2 \text{ K})$	

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 $f_{Rsi=0.25}$ [-]
Flying Mullion (FM1)		170	1.17	0.021	0.56
Bottom (OB1)		115	1.03	0.022	0.73
Top (OH1)		115	1.03	0.022	0.73
Lateral (OJ1)		115	1.03	0.022	0.73
Spacer: SWISSPACER ULTIMATE			Secondary seal: Butyl		

