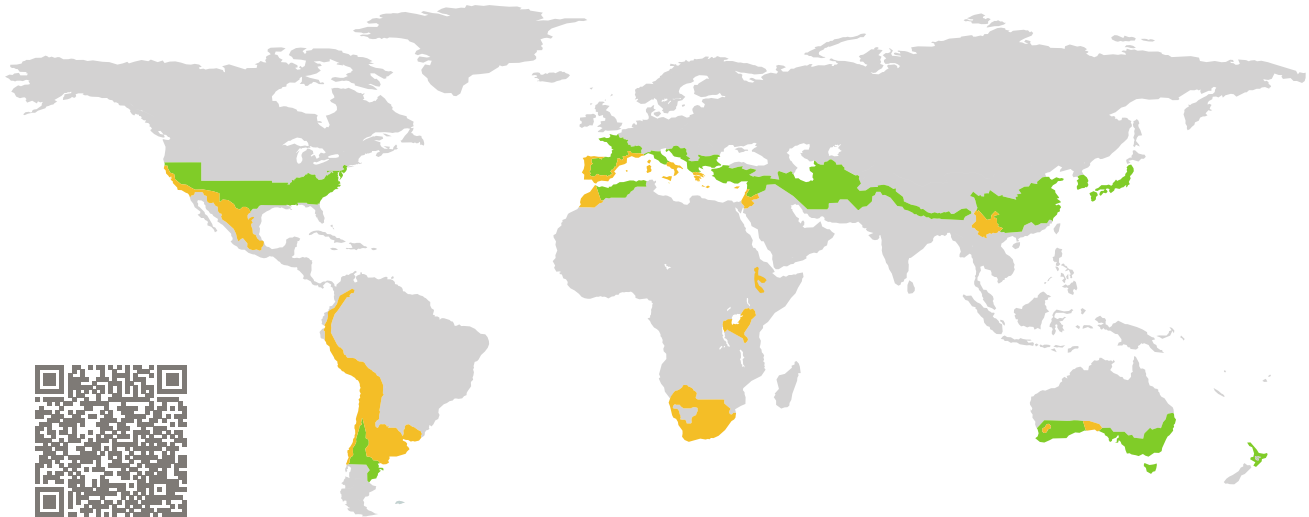


CERTIFICATE

Certified Passive House Component

Component-ID 0941wi04 valid until 31st December 2017

Passive House Institute
Dr. Wolfgang Feist
64283 Darmstadt
Germany

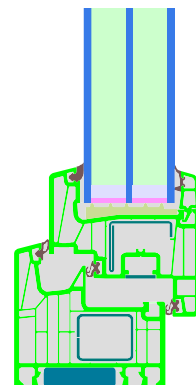


Category: **Window frame**
Manufacturer: **Regicarp, S.L.,
Cocentaina,
Spain**
Product name: **REPLUS PASSIV**

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



warm, temperate climate



**CERTIFIED
COMPONENT**

Passive House Institute

Passive House
efficiency class

phE

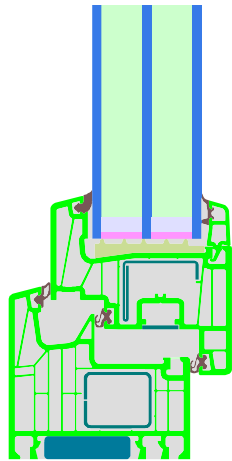
phD

phC

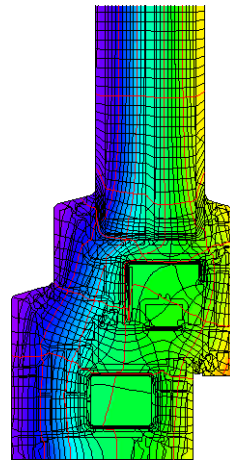
phB

phA

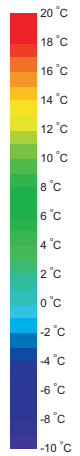
www.passivehouse.com



Calculation model



Isothermal



Description

PVC window frame with rebate insulation (0.036 W/(mK)) and EPS insulation bar (0.031 W/(mK)).
 Pane thickness: 48 mm (4/18/4/18/4), rebate depth: 15 mm, spacer: SWISSPACER Ultimate.

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/(m² K).
 If a higher quality glazing is used, the window U-values will improve as follows:

Glazing	$U_g =$	0.90	0.64	0.58	0.52	W/(m ² K)
		↓	↓	↓	↓	
Window	$U_W =$	1.00	0.83	0.78	0.74	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.

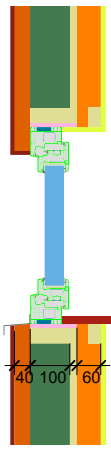
Further information relating to certification can be found on www.passivehouse.com and passipedia.org.

Frame values		Frame width b_f mm	U -value frame U_f W/(m ² K)	Ψ -glass edge Ψ_g W/(m K)	Temp. Factor $f_{Rsi=0.25}$ [-]
Top	(to) 	116	1.04	0.024	0.72
Side	(s) 	116	1.04	0.024	0.72
Bottom	(bo) 	116	1.04	0.024	0.72
Mullion flying	(fm) 	147	1.08	0.023	0.71
Spacer: SWISSPACER Ultimate			Secondary seal: Polysulfide		

Validated installations

Lightweight timber (operable)

$U_{Wall} = 0.21 \text{ W/(m}^2 \text{ K)}$

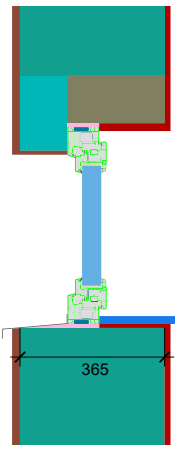


$\Psi_{install}$	W/(m K)
Top	-0.007
Side	-0.007
Bottom	0.010

$U_{W,installed} = 0.99 \text{ W/(m}^2 \text{ K)}$

Solid construction, operable

$U_{Wall} = 0.25 \text{ W/(m}^2 \text{ K)}$

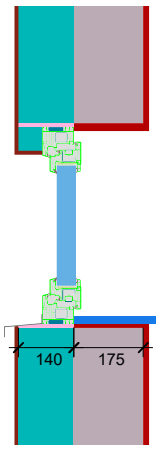


$\Psi_{install}$	W/(m K)
Top	0.038
Side	0.001
Bottom	0.031

$U_{W,installed} = 1.05 \text{ W/(m}^2 \text{ K)}$

Exterior insulation and finishing system (EIFS) (operable)

$U_{Wall} = 0.23 \text{ W/(m}^2 \text{ K)}$



$\Psi_{install}$	W/(m K)
Top	-0.009
Side	-0.009
Bottom	0.014

$U_{W,installed} = 0.99 \text{ W/(m}^2 \text{ K)}$

