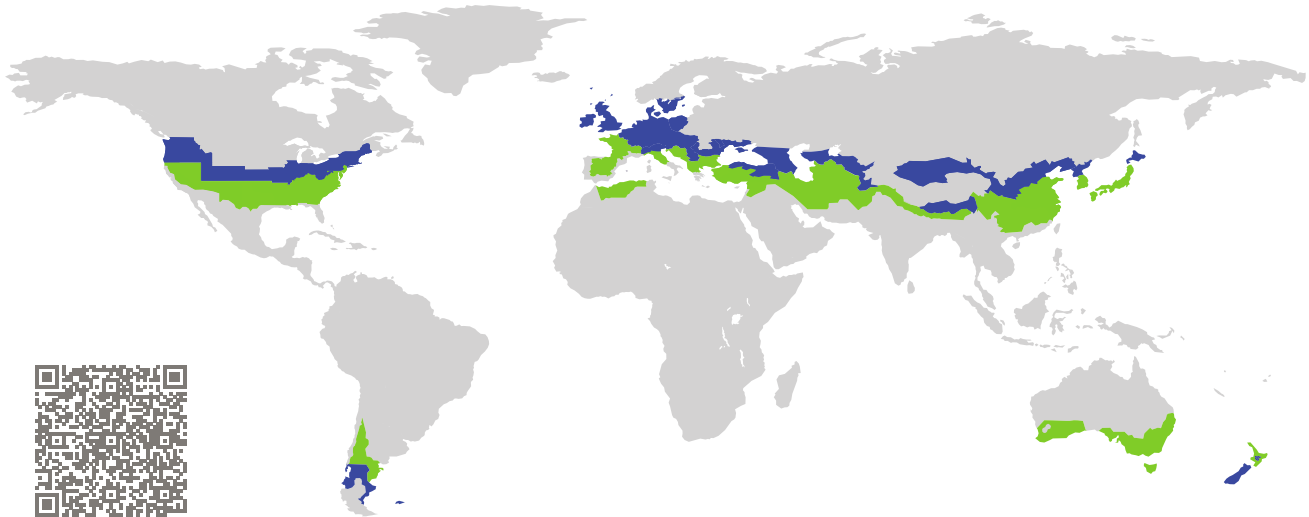


# CERTIFICATE

Certified Passive House Component

Component-ID 1150wc03 valid until 31st December 2018

Passive House Institute  
Dr. Wolfgang Feist  
64283 Darmstadt  
Germany

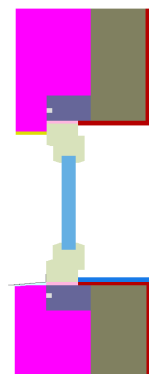


Category: **Window connection**  
Manufacturer: **ISO-Chemie GmbH,  
Aalen,  
Germany**  
Product name: **ISO TOP WINFRAMER "TYP 3"**

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

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

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



Passive House  
efficiency class

phE

phD

phC

phB

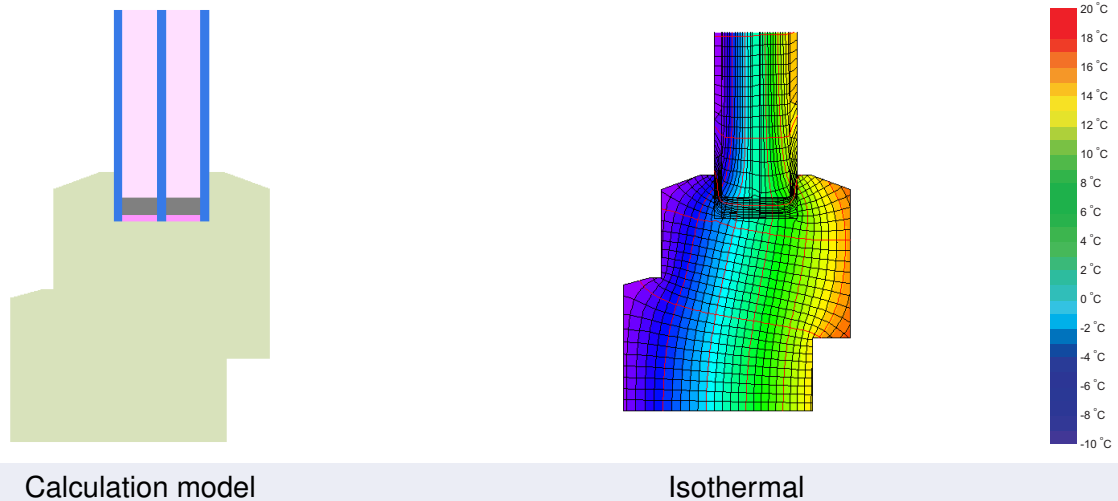
phA

cool, temperate climate



**CERTIFIED  
COMPONENT**

Passive House Institute



**Description**

Pre-Wall Mounting System from dense EPS foam (0,041 W/(mK)), system width 80, 100, 120, 140, 160, 180 and 200 mm. Assembly by glueing and screwing. Additional thermal losses by screws determined by 3D heat flux simulation. Losses are included in the conductivity of the EPS-foam. For heavy loads, reinforced by Aluminum angles: X = 0,002 W/K @ 80 mm, 0,006 W/K @ 200 mm width. For widhts in between, please interpolate the values.

**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	0.52	0.58	0.64	W/(m <sup>2</sup> K)
		↓	↓	↓	↓	
Window	$U_W =$	0.79	0.67	0.71	0.75	W/(m <sup>2</sup> 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](http://www.passivehouse.com) and [passipedia.org](http://passipedia.org).

Frame values			Frame width $b_f$ mm	$U$ -value frame $U_f$ W/(m <sup>2</sup> K)	$\Psi$ -panel edge $\Psi_g$ W/(m K)	Temp. Factor $f_{RSi=0.25}$ [-]
Top	(to)		125	0.73	0.033	0.70
Side	(s)		125	0.73	0.033	0.70
Bottom	(bo)		125	0.73	0.033	0.70
			Spacer: PHI pHB-Spacer		Secondary seal: Polysulfide	

### Validated installations

