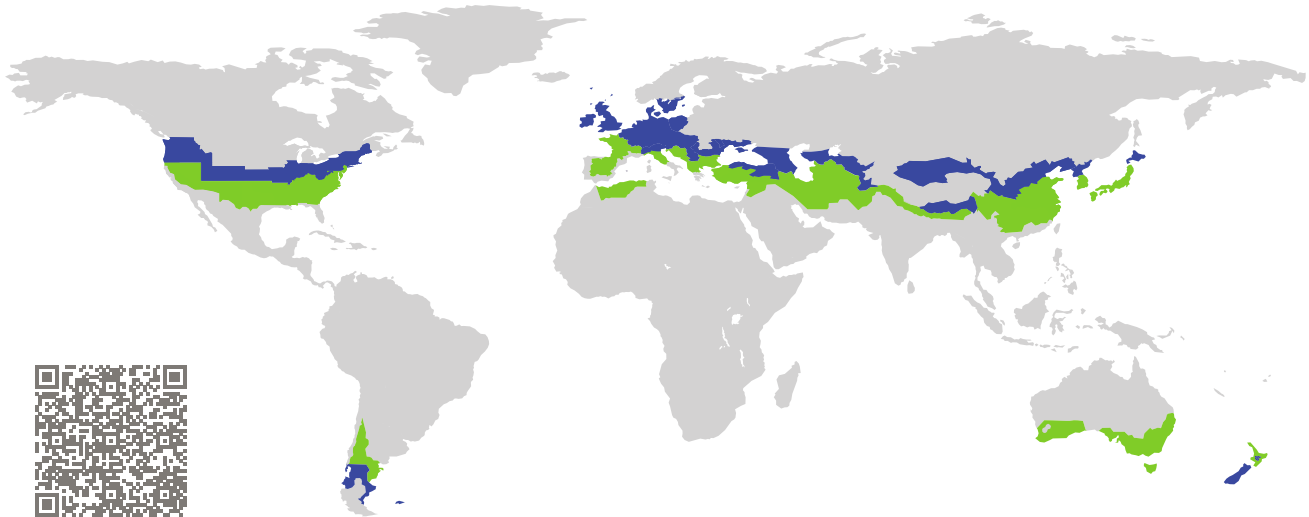


# CERTIFICATE

Certified Passive House Component

Component-ID 2441wi03 valid until 31st December 2025

Passive House Institute  
Dr. Wolfgang Feist  
64283 Darmstadt  
Germany

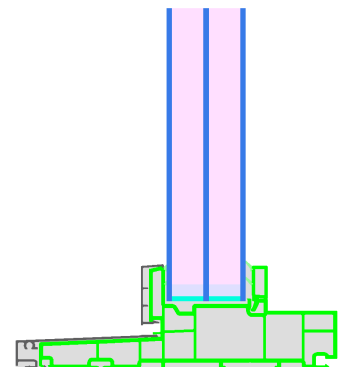


Category: **Fixed window**  
Manufacturer: **Isothermic Portes et fenêtres,  
Thetford Mines,  
Canada**  
Product name: **Série 2 Fixed H1**

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

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

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



Passive House  
efficiency class

phE

phD

phC

phB

phA

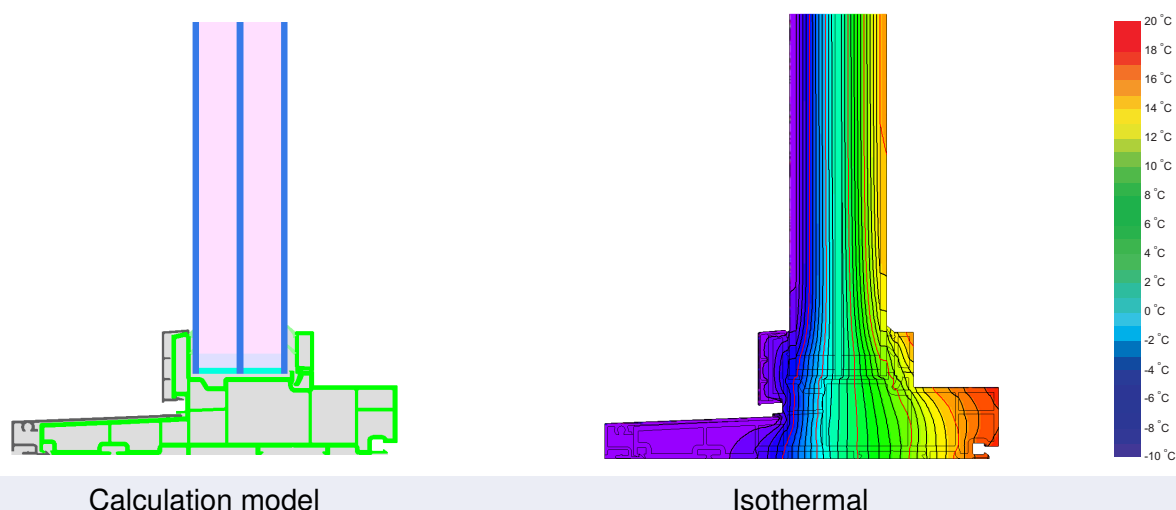
[www.passivehouse.com](http://www.passivehouse.com)

cool, temperate climate



**CERTIFIED  
COMPONENT**

Passive House Institute



## Description

Vinyl frame with aluminium cladding on the outside. Maximum dimensions according to manufacturer's specifications. Pane thickness: 44 mm (3/17,5/3/17,5/3), rebate depth: 20 mm.

## 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/(m<sup>2</sup> 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 <sup>2</sup> K)
		↓	↓	↓	↓	
Window	$U_W =$	0.80	0.75	0.70	0.66	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.

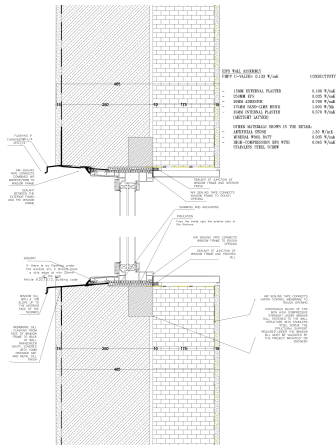
Further information relating to certification can be found on [www.passivehouse.com](http://www.passivehouse.com) and [passipedia.org](http://passipedia.org).

Frame values			Frame width $b_f$ mm	$U$ -value frame $U_f$ W/(m <sup>2</sup> K)	$\Psi$ -glazing edge $\Psi_g$ W/(m K)	Temp. Factor $f_{RSI=0.25}$ [-]
Mullion fixed	(0M1)		115	1.03	0.017	0.74
Transom fixed	(0T1)		115	1.03	0.017	0.74
Bottom fixed	(FB1)		57	1.02	0.017	0.73
Top fixed	(FH1)		57	1.02	0.017	0.73
Lateral fixed	(FJ1)		57	1.02	0.017	0.73
Spacer: Swisspacer Ultimate				Secondary seal: Butyl		

## Validated installations

### Exterior insulation and finishing system (EIFS) (fixed glazed)

$$U_{\text{Wall}} = 0.13 \text{ W/(m}^2 \text{ K)}$$

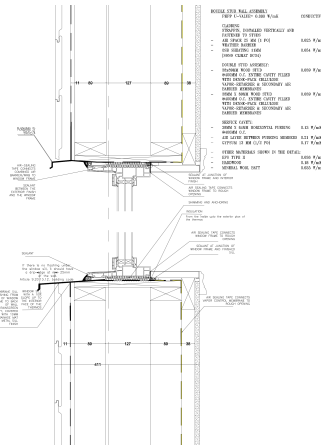


$\Psi_{\text{install}}$	W/(m K)
Top	0.011
Side	0.011
Bottom	0.012

$$U_{W,\text{installed}} = 0.83 \text{ W/(m}^2 \text{ K)}$$

### Lightweight timber (fixed glazed)

$$U_{\text{Wall}} = 0.12 \text{ W/(m}^2 \text{ K)}$$

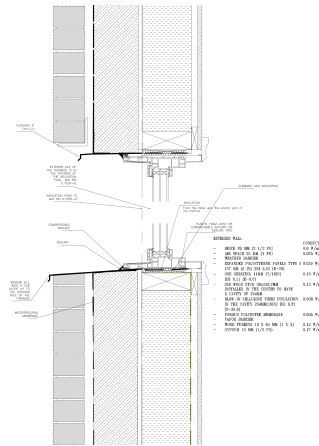


$\Psi_{\text{install}}$	W/(m K)
Top	0.017
Side	0.017
Bottom	0.019

$$U_{W,\text{installed}} = 0.85 \text{ W/(m}^2 \text{ K)}$$

### Solid timber (fixed glazed)

$$U_{\text{Wall}} = 0.14 \text{ W/(m}^2 \text{ K)}$$

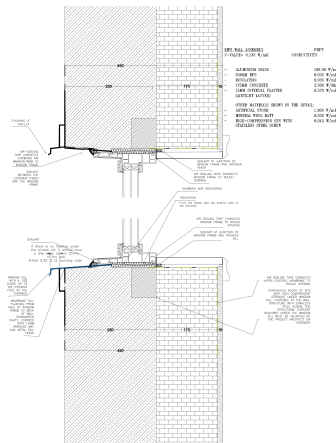


$\Psi_{\text{install}}$	W/(m K)
Top	0.021
Side	0.021
Bottom	0.022

$$U_{W,\text{installed}} = 0.86 \text{ W/(m}^2 \text{ K)}$$

### Ventilated facade (fixed glazed)

$$U_{\text{Wall}} = 0.13 \text{ W/(m}^2 \text{ K)}$$



$\Psi_{\text{install}}$	W/(m K)
Top	0.011
Side	0.011
Bottom	0.012

$$U_{W,\text{installed}} = 0.83 \text{ W/(m}^2 \text{ K)}$$

