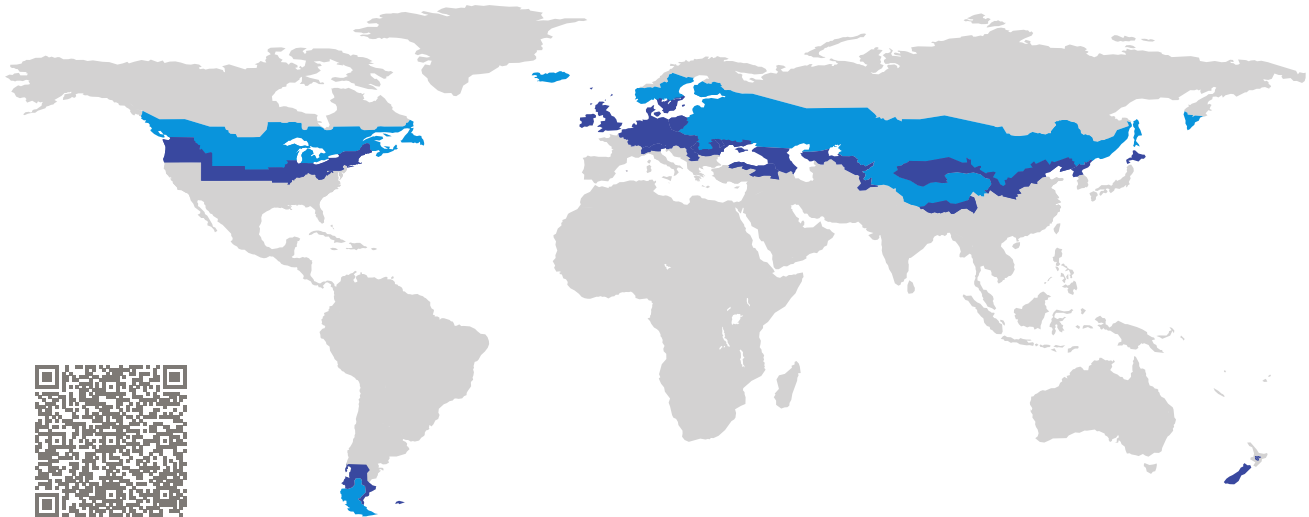


# CERTIFICATE

Certified Passive House Component

Component-ID 1467cw02 valid until 31st December 2025

Passive House Institute  
Dr. Wolfgang Feist  
64283 Darmstadt  
Germany

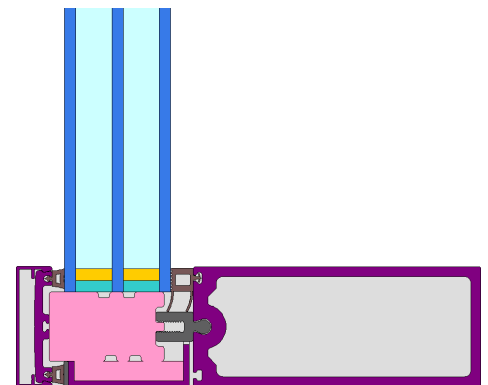


Category: **Curtain Wall**  
Manufacturer: **GlasCurtain Inc.,  
Edmonton,  
Canada**  
Product name: **Thermaframe 9 PH**

**This certificate was awarded based on the following  
criteria for the cold climate zone**

Comfort  $U_{CW} = 0.60 \leq 0.60 \text{ W}/(\text{m}^2 \text{ K})$   
 $U_{CW, \text{installed}} \leq 0.65 \text{ W}/(\text{m}^2 \text{ K})$   
with  $U_g = 0.52 \text{ W}/(\text{m}^2 \text{ K})$

Hygiene  $f_{Rsi=0.25} \geq 0.75$



Passive House  
efficiency class

phE

phD

phC

phB

phA

phA+

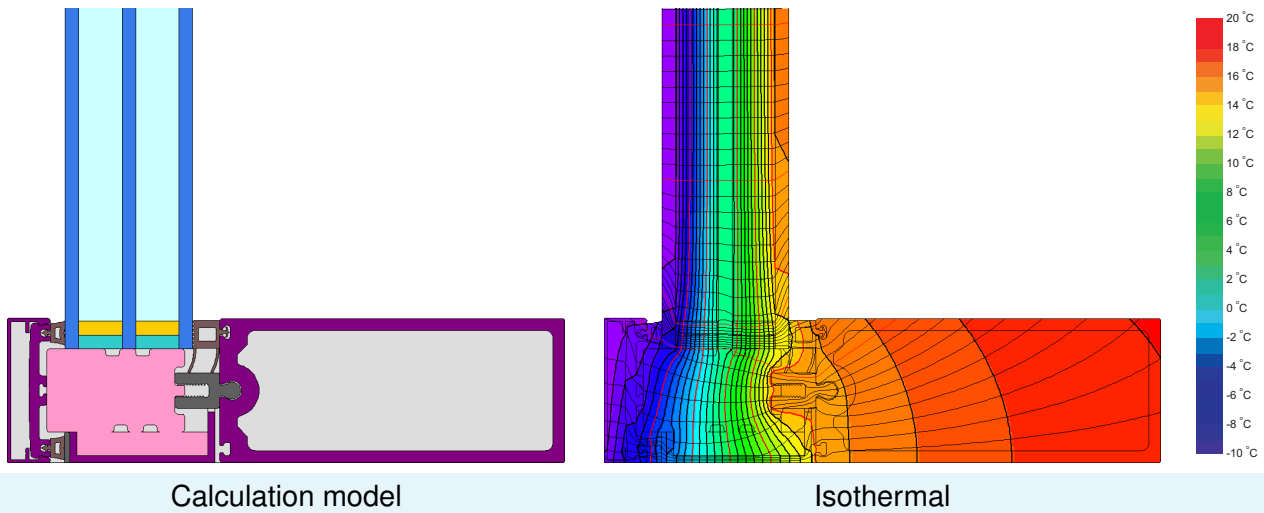
[www.passivehouse.com](http://www.passivehouse.com)

cold climate



**CERTIFIED  
COMPONENT**

Passive House Institute



### Description

Fibre-glass curtain wall with EPS-insulation (0.031 W/(mK)). Fibre glass glass support, all values determined via 3D-FEM simulation. Pane thickness: 56 mm (6/19/6/19/6), rebate depth: 12 mm, spacer: SuperSpacer Tri-Seal with silicone (DOWSIL) secondary seal

### Explanation






The element U-values were calculated for the test element size of 1.20 m × 2.50 m with  $U_g = 0.52 \text{ W}/(\text{m}^2 \text{ K})$ . If a higher quality glazing is used, the element U-values will improve as follows:

Glazing	$U_g =$	0.52	0.54	0.58	0.60	W/(m <sup>2</sup> K)
		↓	↓	↓	↓	
Element	$U_{CW}$	0.60	0.62	0.66	0.68	W/(m <sup>2</sup> K)

Transparent building components are sorted 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 that have been certified for climate zones with higher thermal 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 $U_f$ <sup>1</sup> W/(m <sup>2</sup> K)	$\Psi$ -glazing edge $\Psi_g$ W/(m K)	Temp. Factor $f_{Rsi=0.25}$ [-]
Mullion fixed	(OM1)		64	0.62	0.029	0.81
Transom fixed	(OT1)		64	0.62	0.029	0.81
Bottom fixed	(FB1)		64	0.76	0.028	0.80
Top fixed	(FH1)		64	0.76	0.028	0.80
Lateral fixed	(FJ1)		64	0.76	0.028	0.80

Spacer: Super Spacer TriSeal / T-Spacer Premium

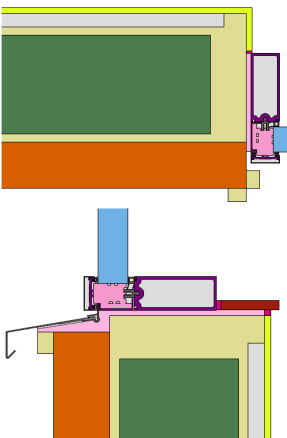
Secondary seal: DOWSIL™ 3364 Warm Edge IG Sealant

Thermal glass carrier bridge<sup>2</sup>  $\chi_{GT} = 0.007$  W/K

### Validated installations

Lightweight timber (operable)

$U_{Wall} = 0.13$  W/(m<sup>2</sup> K)

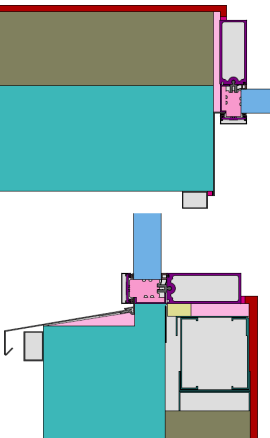


$\Psi_{install}$	W/(m K)
Top	0.033
Left	0.033
Right	0.033
Bottom	0.027

$U_{W,installed} = 0.65$  W/(m<sup>2</sup> K)

Ventilated facade (fixed glazing)

$U_{Wall} = 0.13$  W/(m<sup>2</sup> K)

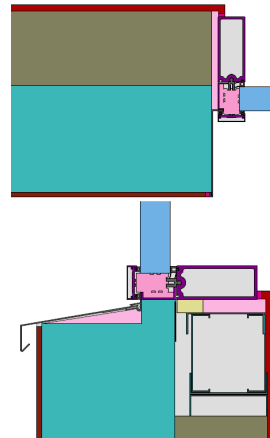


$\Psi_{install}$	W/(m K)
Top	0.033
Left	0.033
Right	0.033
Bottom	0.034

$U_{W,installed} = 0.65$  W/(m<sup>2</sup> K)

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

$U_{Wall} = 0.13$  W/(m<sup>2</sup> K)



$\Psi_{install}$	W/(m K)
Top	0.038
Left	0.034
Right	0.034
Bottom	0.033

$U_{W,installed} = 0.65$  W/(m<sup>2</sup> K)

<sup>1</sup> Includes  $\Delta U = 0.10$  W/(m<sup>2</sup> K). Determined through 3D FEM simulation

<sup>2</sup> Determined through 3D FEM simulation. Glass carrier type: Non-metallic glass carrier with screws

