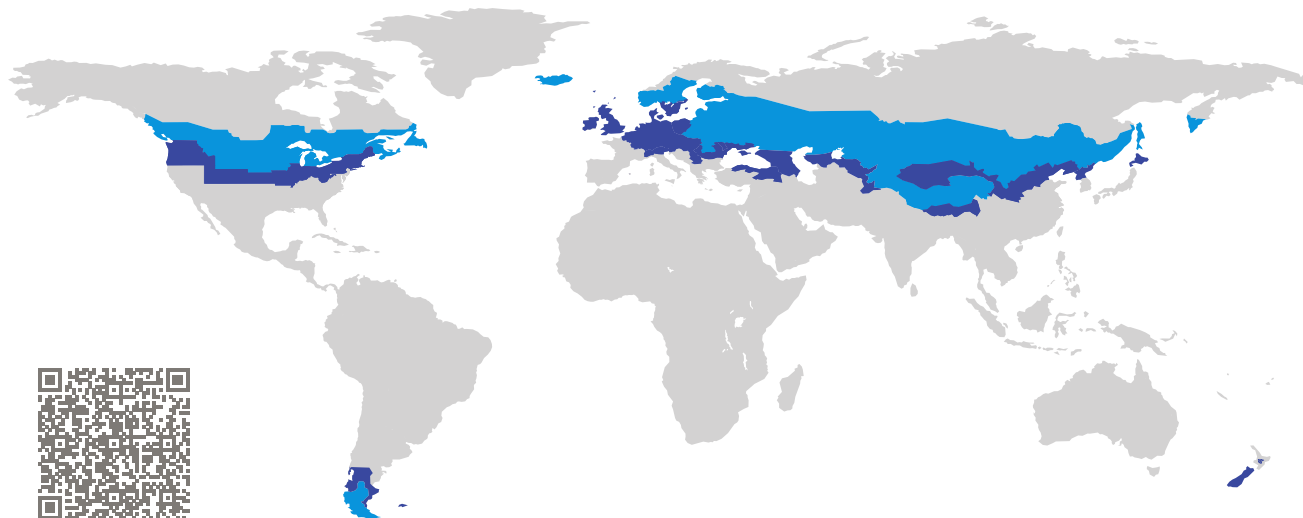


CERTIFICATE

Certified Passive House Component

Component-ID 2065fx02 valid until 31st December 2024

Passive House Institute
Dr. Wolfgang Feist
64283 Darmstadt
Germany

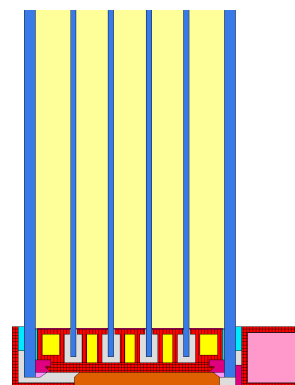


Category: **Fixed window**
Manufacturer: **LiteZone Glass Inc.,
Edmonton, AB,
Canada**
Product name: **LiteZone® L0679 PH Frameless**

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

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

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



Passive House
efficiency class

phE

phD

phC

phB

phA

phA+

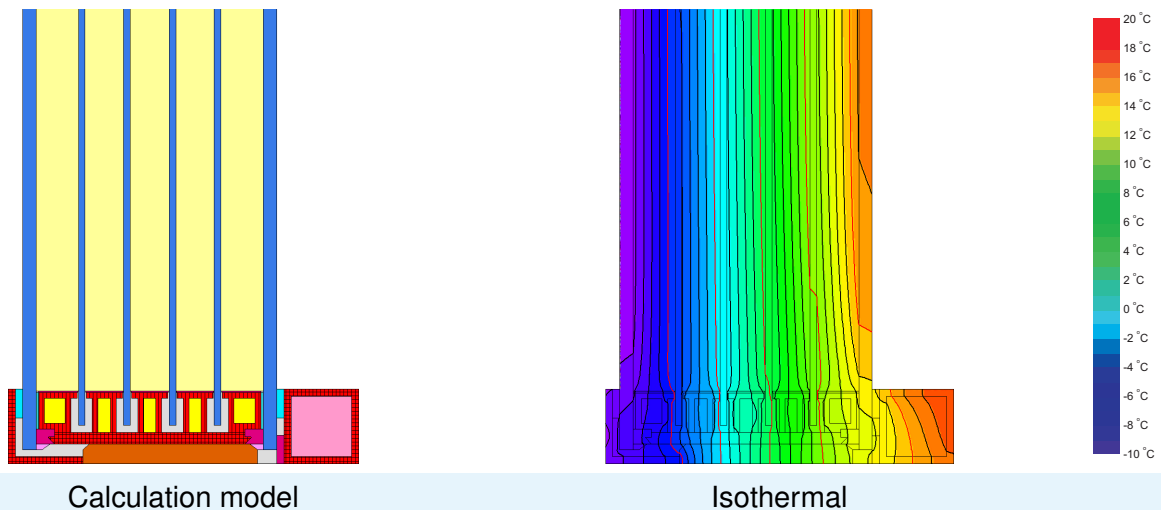
www.passivehouse.com

cold climate



**CERTIFIED
COMPONENT**

Passive House Institute



Description

Fixed glazing with glazing bead and spacer made of glass fiber reinforced plastic (0.45 - 0.50 W/(mK) depending on grain direction). Glazing bead with insulating material insert (0.032 W/(mK). Multi-chamber system, air-filled space between panes. The characteristic values of the glass configurations can be found in the database .

Explanation

The window U-values were calculated for the test window size of 1.23 m × 1.48 m with $U_g = 0.52 \text{ W}/(\text{m}^2 \cdot \text{K})$. If a higher quality glazing is used, the window U-values will improve as follows:

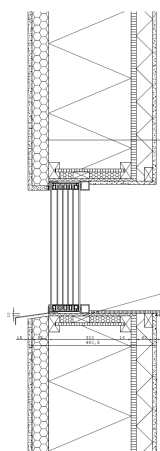
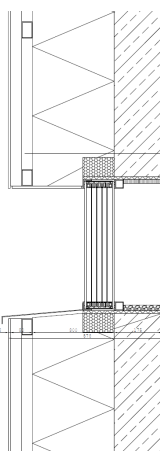
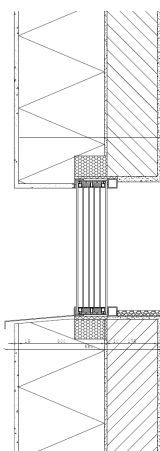
Glazing	$U_g =$	0.52	0.44	0.42	0.40	W/(m ² · K)
		↓	↓	↓	↓	
Window	$U_W =$	0.60	0.53	0.51	0.49	W/(m ² · K)





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.

Validated installations

Lightweight timber (fixed glazed)		Ventilated facade (fixed glazing)		Exterior insulation and finishing system (EIFS) (fixed glazed)	
$U_{Wall} = 0.10 \text{ W}/(\text{m}^2 \cdot \text{K})$		$U_{Wall} = 0.11 \text{ W}/(\text{m}^2 \cdot \text{K})$		$U_{Wall} = 0.11 \text{ W}/(\text{m}^2 \cdot \text{K})$	
 <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>point connection made from timber battens</p>		 <p>Ventilated facade – substructure Mineral wool 0.035 W/(mK) Concrete 2.3 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>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>	
$\Psi_{install}$	W/(m · K)	$\Psi_{install}$	W/(m · K)	$\Psi_{install}$	W/(m · K)
Top	0.019	Top	0.015	Top	0.017
Side	0.019	Side	0.015	Side	0.017
Bottom	0.020	Bottom	0.025	Bottom	0.025
$U_{W, installed} = 0.65 \text{ W}/(\text{m}^2 \cdot \text{K})$		$U_{W, installed} = 0.65 \text{ W}/(\text{m}^2 \cdot \text{K})$		$U_{W, installed} = 0.65 \text{ W}/(\text{m}^2 \cdot \text{K})$	

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 $f_{Rsi=0.25}$ [-]	
Transom fixed	(OT1)		61	0.33	0.038	0.78
Bottom fixed	(FB1)		33	0.34	0.034	0.79
Top fixed	(FH1)		33	0.34	0.034	0.79
Lateral fixed	(FJ1)		33	0.34	0.034	0.79
		Spacer:	Secondary seal: -			

