

# Certificate

## Certified Passive House component

for cool, temperate climate, valid until 31.12.2015

Passive House Institute  
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Category: **Curtain Wall**  
 Manufacturer: **PONZIO POLSKA Sp. z o.o.**  
**09-472 Slupno, POLAND**  
 Product name: **PONZIO PF152HI**

The following comfort criteria were used in awarding this certificate:

Given a  $U_g$  value of  $0,70 \text{ W}/(\text{m}^2\text{K})$  and an element size of  $1.20 \text{ m}$  by  $2.50 \text{ m}$ ,

$$U_{CW} = 0.80 \text{ W}/(\text{m}^2\text{K}) \leq 0.80 \text{ W}/(\text{m}^2\text{K})$$

Taking into account the installation based thermal bridges, and provided that the installation is, with regard to the thermal bridges, equal or better than shown in the data sheet, the facade meets the following criterion.

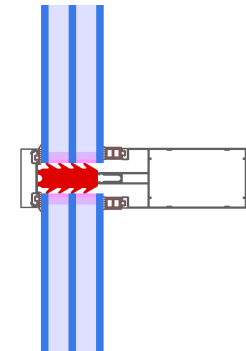
$$U_{CW, \text{installed}} \leq 0.85 \text{ W}/(\text{m}^2\text{K})$$

### Thermal data of the construction

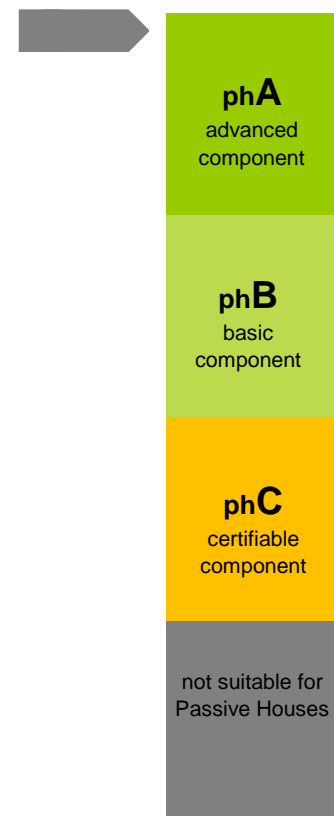
	$U_f$ -value [W/(m <sup>2</sup> K)]	Width [mm]	$\Psi_g$ [W/(mK)]	$f_{Rsi=0,25}$ [-]
Spacer			ULTIMATE Swisspacer*	
Transom (t)	0.92	52	0.034	0.80
Mullion (m)	0.93	52	0.034	
Thermal glass carrier bridge $\chi_{GT}$ [W/K]:				0.006

\*Spacers of lower thermal quality, especially those made of aluminium, lead to significantly higher thermal losses and lower temperature factors.

Further information see data sheet



### Passive House Efficiency Class

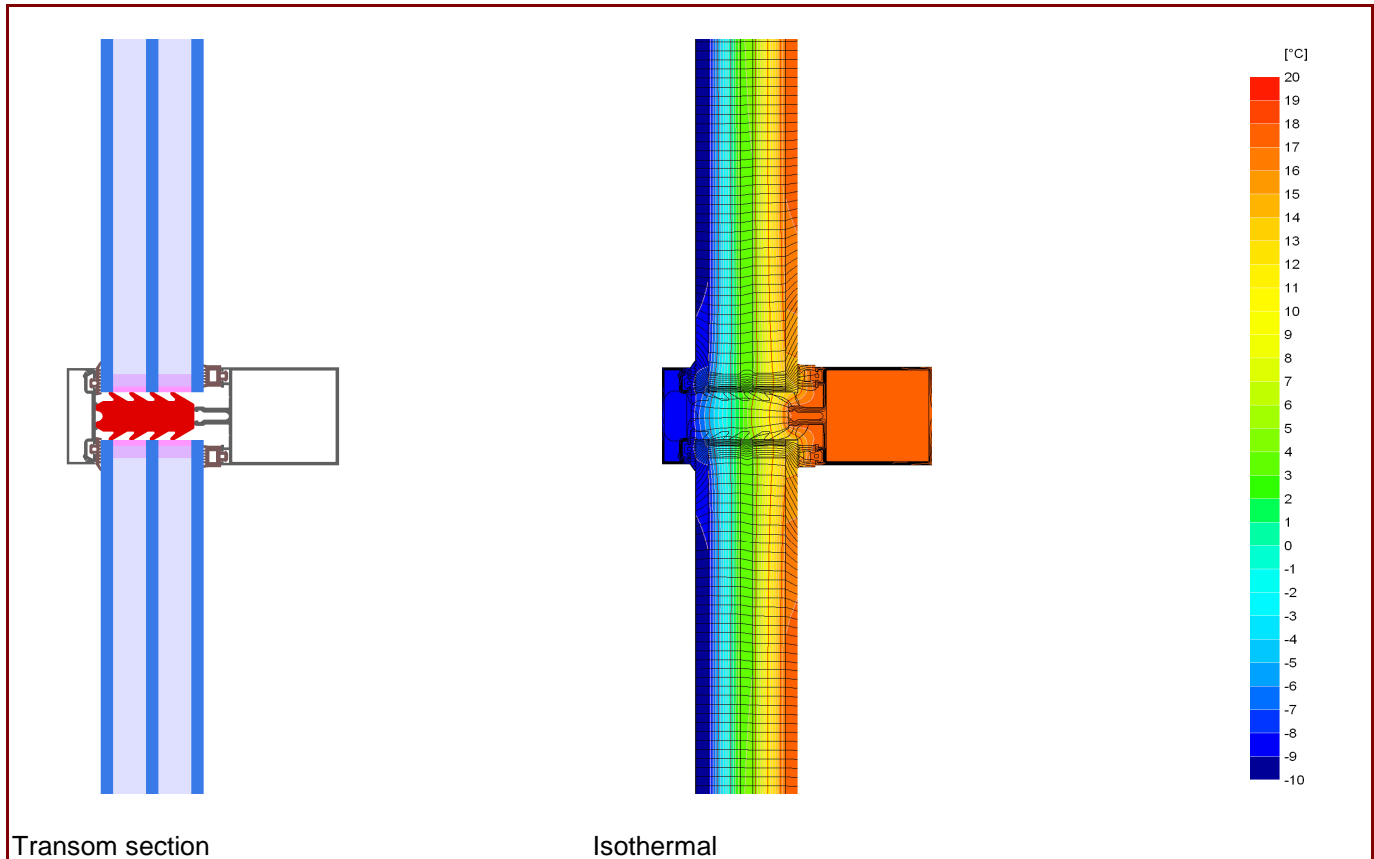


**CERTIFIED COMPONENT**

Passive House Institute

# Data Sheet PONZIO POLSKA Sp. z o.o., PONZIO PF152HI

**Manufacturer** PONZIO POLSKA Sp. z o.o.  
 09-472 Slupno, POLAND  
 Tel.: +48 24 267 50 24  
 www.ponzo.pl



## Description

Aluminium mullion and transom facade. Covering- and pressure-strip from aluminium. Insulation of polythylene inside of the rebate. Used Pane: 50 mm (6/16/6/16/6), rebate depth: 14. Used spacer: ULTIMATE Swisspacer

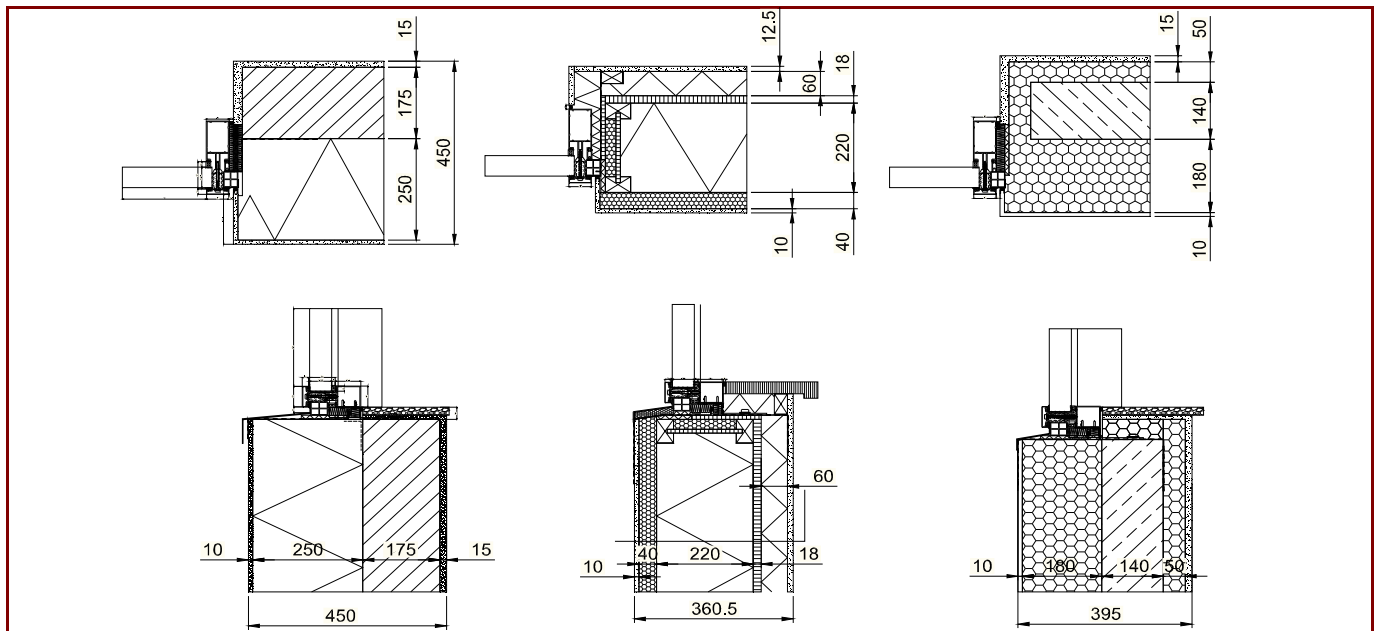
## Thermal data

	<b>U<sub>f</sub>-value</b> [W/(m²K)]	<b>Width</b> [mm]	<b>Ψ<sub>g</sub></b> [W/(mK)]	<b>f<sub>Rsi=0.25</sub></b> [-]
Spacer	ULTIMATE Swisspacer*			
Transom (t)	0.92	52	0.034	0.80
Mullion (m)	0.93	52	0.034	
-				
-				
Thermal glass carrier bridge χ <sub>GT</sub> [W/K]:				0.006
1: Includes ΔU = 0.244 W/(m²K), determined by simulation (PHI)				
2: determined by simulation (PHI)				

\* Spacers of lower thermal quality leading to higher thermal losses and lower temperatures.

# Data Sheet PONZIO POLSKA Sp. z o.o., PONZIO PF152HI

## Installation



## Installation based thermal bridge $\Psi_{instal.}$ in Passive House suitable walls

		EIFS	Timber construction wall	Insulated formwork blocks
<b>Position</b>				
<b>Bottom</b>	[W/(mK)]	0.051	0.039	0.040
<b>Side/top</b>	[W/(mK)]	0.040	0.047	0.045
<b><math>U_{CW,installed}</math></b>	[W/(m <sup>2</sup> K)]	0.85	0.85	0.85

## Explanatory notes

The facade-U-values were calculated based on a 1.20 m by 2.50 m element  $U_g = 0.70$  W/(m<sup>2</sup>K).  
If better glazing is used, the window U-value decrease as follow:

<b>U Glazing</b>	<b><math>U_g</math> [W/(m<sup>2</sup>K)]</b>	0.66	0.60	0.50
<b>U Facade</b>	<b><math>U_{CW}</math> [W/(m<sup>2</sup>K)]</b>	0.76	0.70	0.61

Depending on the thermal losses through opaque elements, transparent components are categorised according to efficiency classes. These thermal losses include the losses through the frame, multiplied by its width, the thermal bridge at the edge bond as well as the length of the edge bond.

Please ask the manufacturer for a detailed report containing all calculations and results.

For further information, please visit [www.passivehouse.com](http://www.passivehouse.com) or [www.passipedia.org](http://www.passipedia.org).