

Certificate

Certified Passive House Component
for cool, temperate climates; valid until 31.12.2022

Passive House Institute
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Category: **Roller shutter**
Manufacturer: **ALUPROF Plant in Opole**
45-446 Opole, POLAND
Product name: **Under-plaster roller shutter system SP / SP-E 165**

The certification is based on a standard
Passive House window frame.

This certificate was awarded based on the following criteria:

The installed window is calculated with the roller shutter box
at the top and guide rails on both sides.
The heat losses are determined with $U_g = 0.70 \text{ W}/(\text{m}^2\text{K})$,
for window dimensions of $1.23 \text{ m} * 1.48 \text{ m}$ and with

$$U_w = 0.80 \text{ W}/(\text{m}^2\text{K})$$

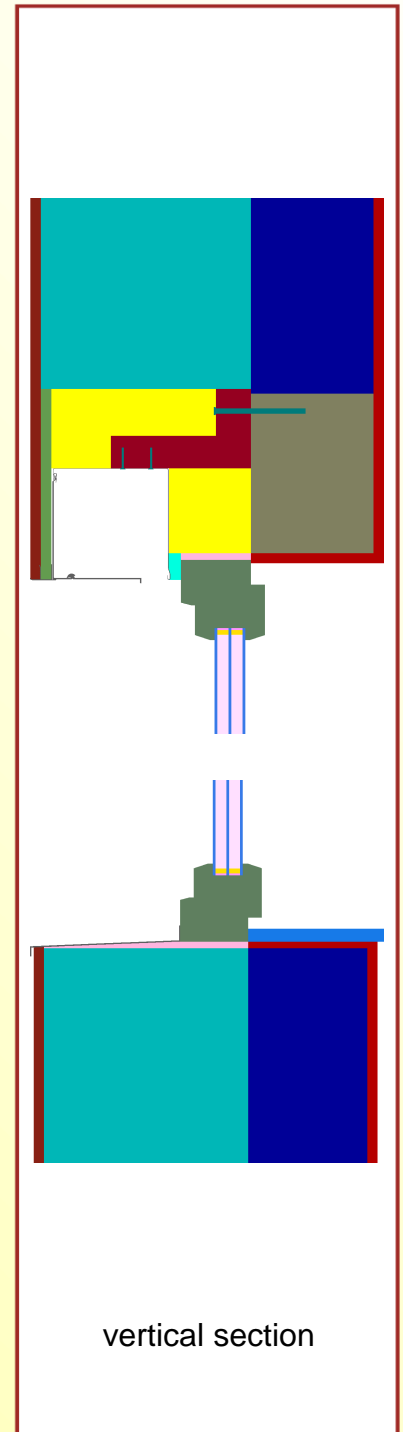
$$U_{w,\text{installed}} = 0.85 \text{ W}/(\text{m}^2\text{K}) \leq 0.85 \text{ W}/(\text{m}^2\text{K})$$

This result is valid only if the thermal quality of the window
installation is equivalent or better than stated in the data sheet.

Following hygiene requirement is fulfilled:

$$f_{Rsi} = 0.25 \geq 0,70$$

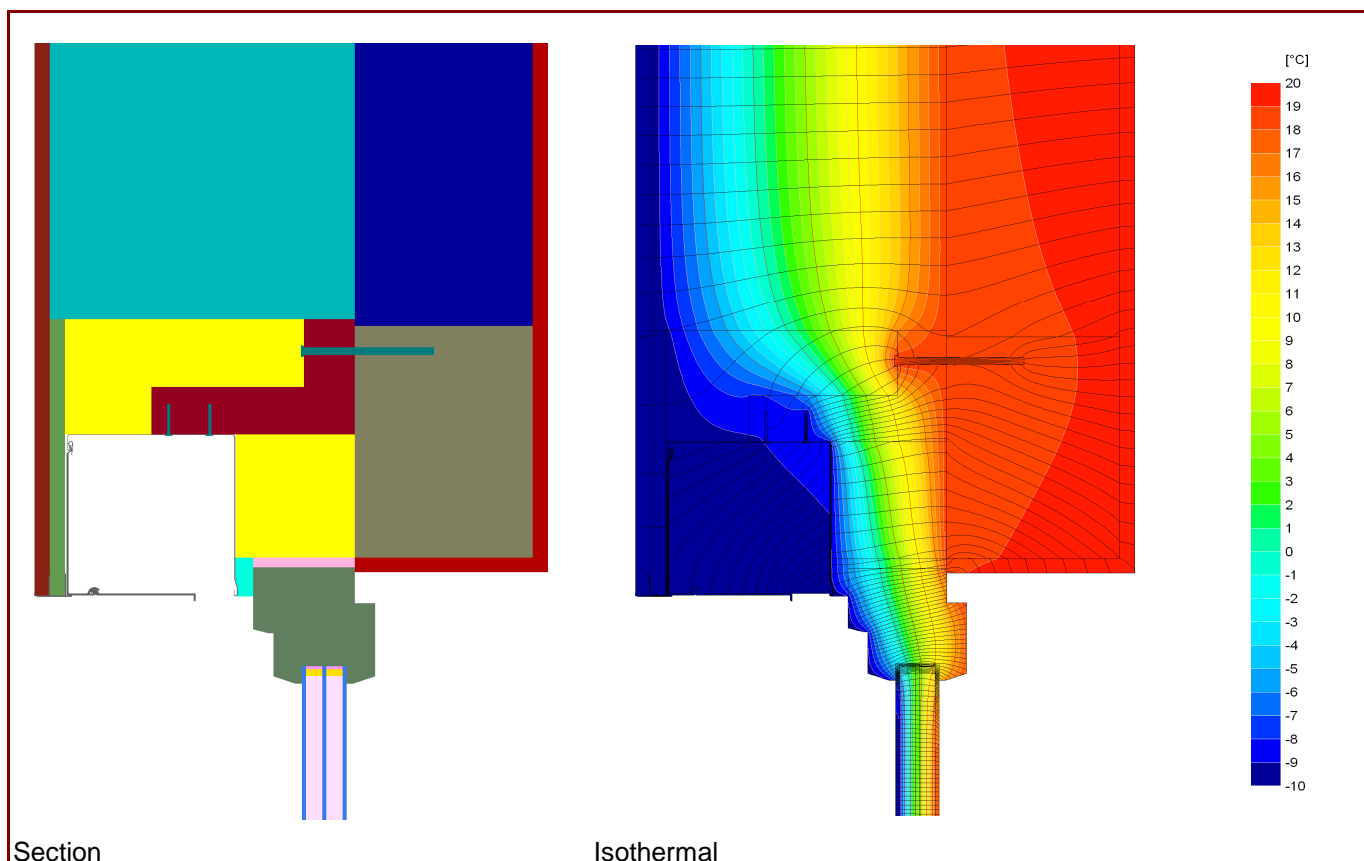
For further information, please see the data sheet



Data Sheet ALUPROF Plant in Opole, Under-plaster roller shutter system SP / SP-E 165

Manufacturer ALUPROF Plant in Opole
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Window standard frame V5



Description

Aluminium roller shutter with PUR insulation ($\lambda = 0,024 \text{ W}/(\text{m}^2\text{K})$), fixed with an angle of PUR rigid foam; the guide rails are fixed at the frame with a thermal separation;
 The certificate is also valid for smaller boxes, if they are installed analog to the installation shown above.

Thermal data for the window frame

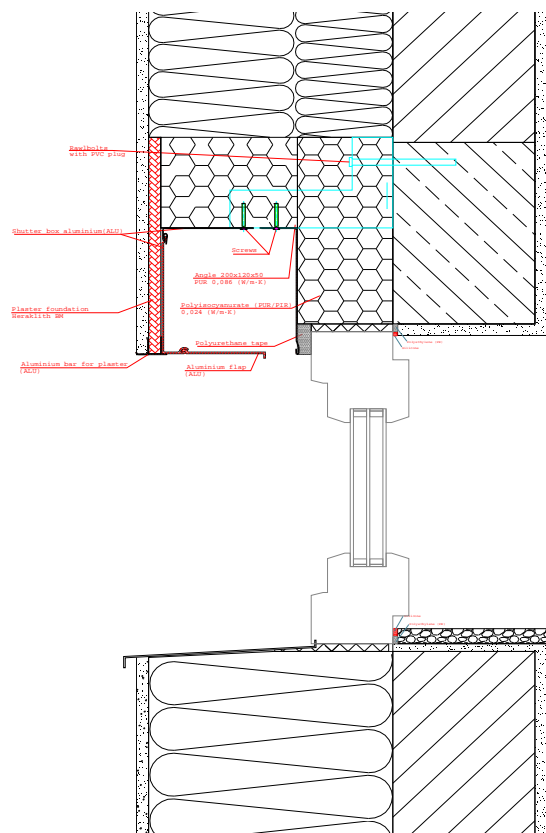
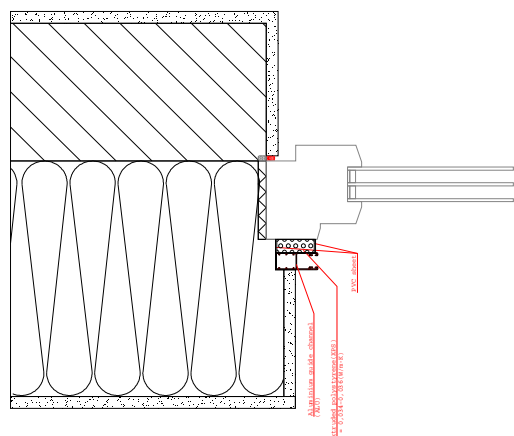
	U_f -value [W/(m ² K)]	Width [mm]	Ψ_g [W/(mK)]	$f_{Rsi=0.25}$ [-]
spacer			Superspacer TriSeal*	
bottom	0.80	120	0.027	0.72
side/top	0.80	120	0.027	

* Spacers of lower thermal quality lead to higher thermal losses and lower glass edge temperatures.

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certified Installation

EIFS (300mm WLG 035)
with standard window V5



Installation based thermal bridge Ψ_{instal} in Passive House suitable wall

Position		EIFS
bottom	[W/(mK)]	0.021
top	[W/(mK)]	0.025
side	[W/(mK)]	0.010
$U_{W, \text{instal}}$	[W/(m ² K)]	0.85

Explanatory notes

The window U-values were calculated based on a 1.23 m by 1.48 m window $U_g = 0.70 \text{ W/(m}^2\text{K)}$.

If better glazing is used, the window U-values decreases. The influence of a ceiling connection instead of a concrete lintel above the window is negligible as long as the EIFS is not weakened.

Dimensions refer to the outer edge of the window frame.

