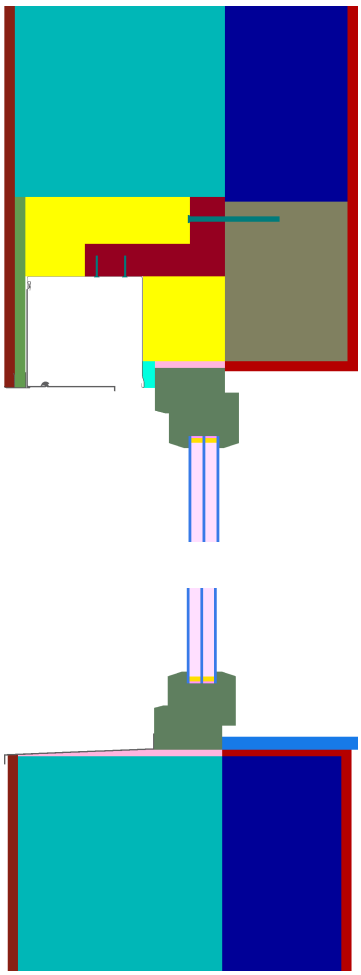
Certificate

Certified Passive House Component
for cool, temperate climates; valid until 31.12.2026

Passive House Institute
Dr. Wolfgang Feist
64283 Darmstadt
GERMANY

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.



vertical section

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 Ug = 0.70 W/(m²K), for window dimensions of 1.23 m * 1.48 m and with

U_w = 0.80 W/(m²K)

$U_{W,installed}$ = 0.85 W/(m²K) ≤ 0.85 W/(m²K)

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:

$f_{Rsi = 0.25}$ ≥ 0,70

For further information, please see the data sheet

www.passivehouse.com

0664rs03

CERTIFIED COMPONENT
Passive House Institute

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

Manufacturer ALUPROF Plant in Opole
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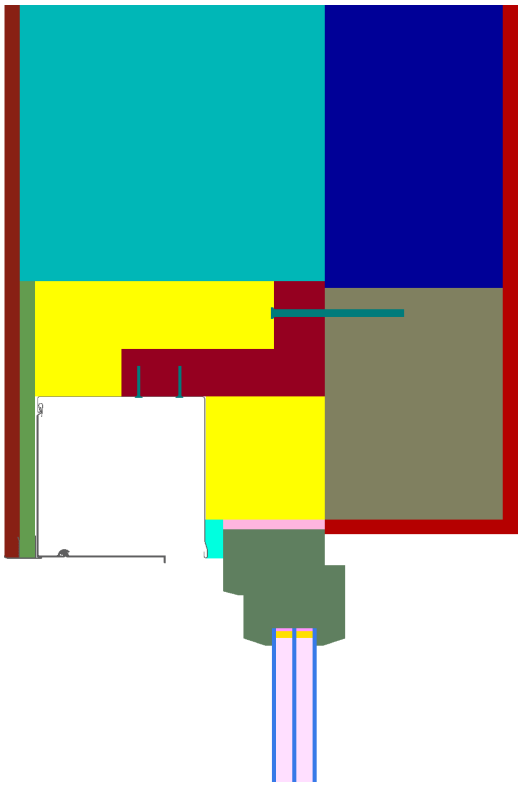
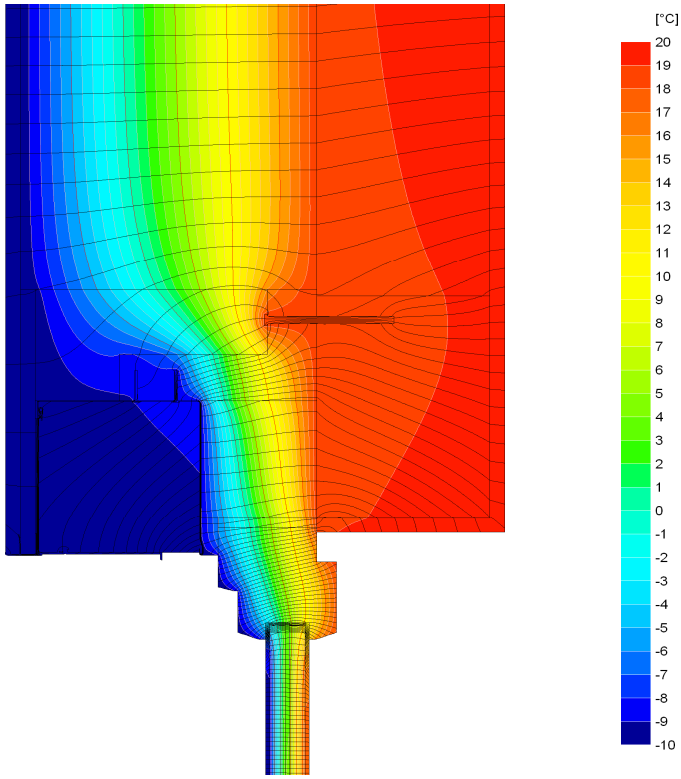
Tel.: +48 77 400 00 00
Email: aluprof@aluprof.eu, www.aluprof.eu/en

Window standard frame V5



Section



Isothermal

Description

Aluminium roller shutter with PUR insulation (λ = 0,024 W/(m²K)), 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/(m²K)]	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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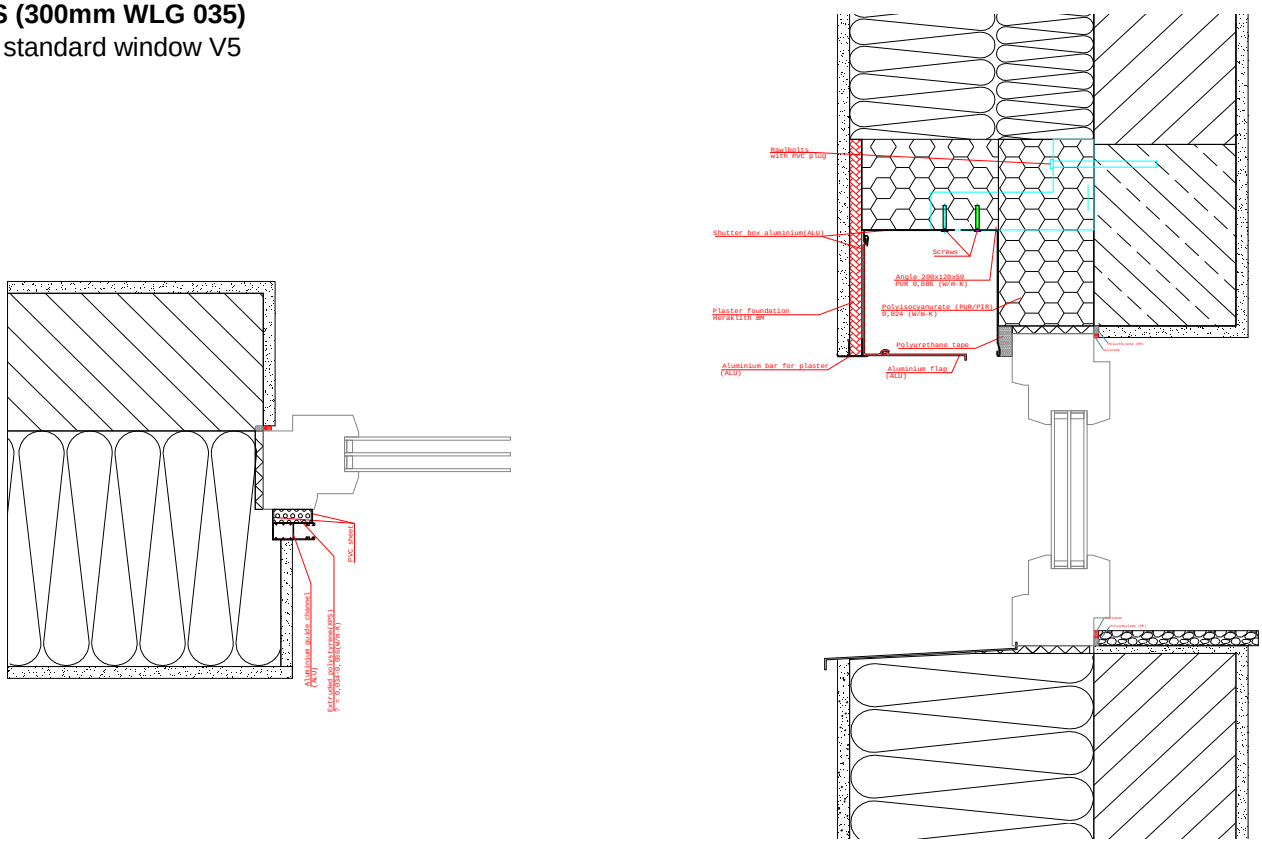
certified Installation

EIFS (300mm WLG 035)
with standard window V5



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

Position		EIFS
bottom	[W/(mK)]	0.021
top	[W/(mK)]	0.025
side	[W/(mK)]	0.010
$U_{W,instal.}$	[W/(m²K)]	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 W/(m²K).
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.

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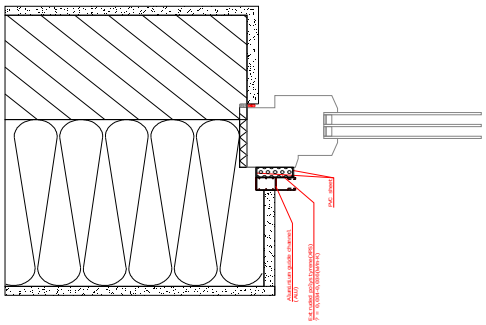
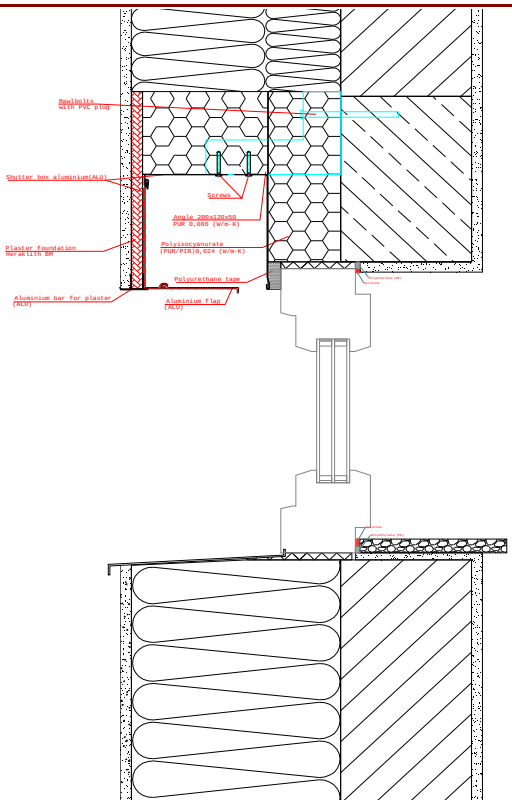
additional installation situations

EIFS (280mm WLG 035)
with standard window V5



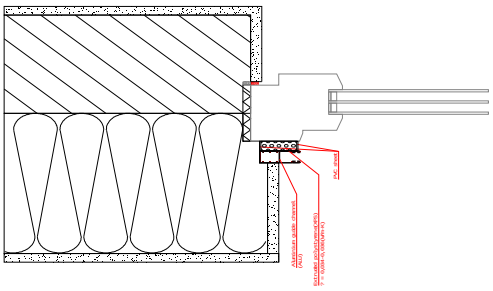


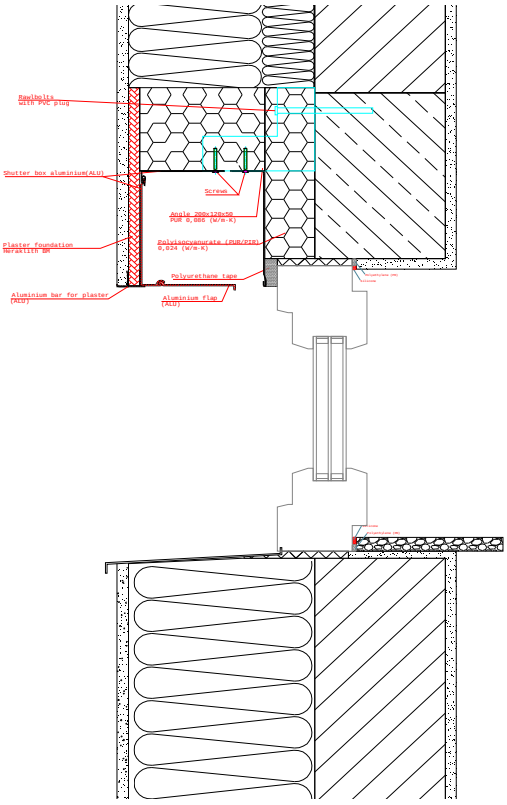
$\Psi_{instal.}$ bottom	= 0.027 W/(mK)
$\Psi_{instal.}$ top	= 0.035 W/(mK)
$\Psi_{instal.}$ side	= 0.015 W/(mK)
$U_{W, instal.}$	= 0.87 W/(m²K) *

* not certified.

This installation detail does not fulfill the criteria. The heat losses are higher, if the window frame is situated towards the masonry rather than in the insulation layer. These losses have to be compensated for elsewhere.

EIFS (250 mm WLG 035)
with standard window V5





$\Psi_{instal.}$ bottom	= 0.043 W/(mK)
$\Psi_{instal.}$ top	= 0.062 W/(mK)
$\Psi_{instal.}$ side	= 0.027 W/(mK)
$U_{W, instal.}$	= 0.91 W/(m²K) *

* not certified.

This installation detail does not fulfill the criteria. The heat losses are higher, if the window frame is situated towards the masonry rather than in the insulation layer. These losses have to be compensated for elsewhere.