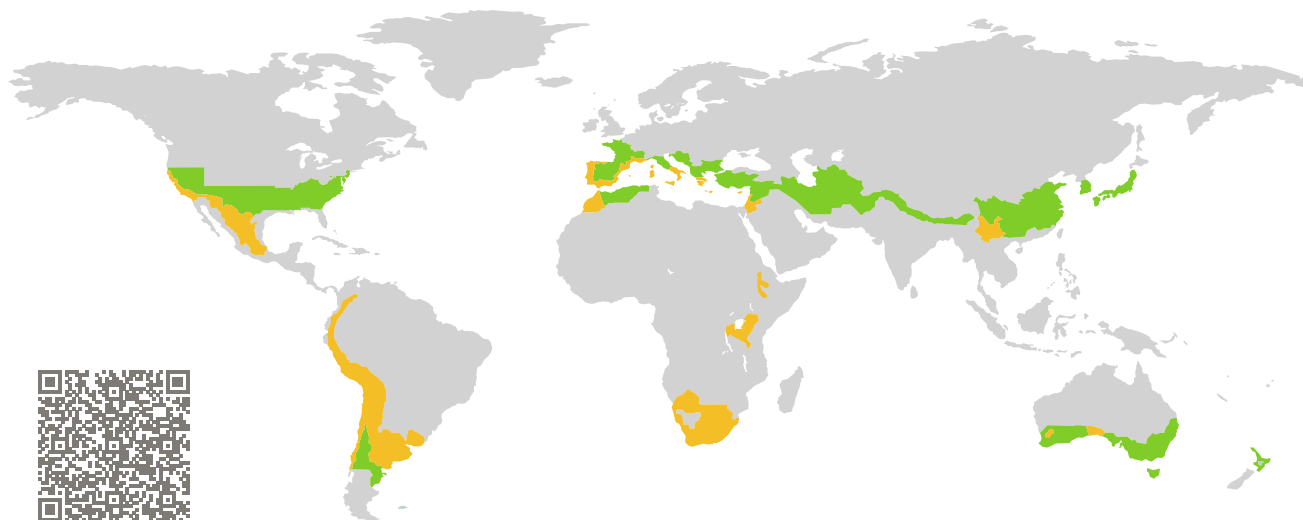


# CERTIFICATE

Certified Passive House Component

Component-ID 2115ws04 valid until 31st December 2025

Passive House Institute  
Dr. Wolfgang Feist  
64283 Darmstadt  
Germany

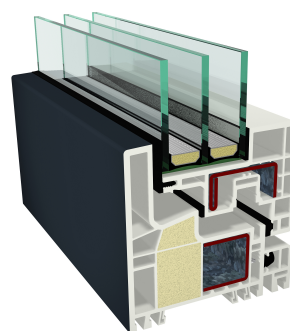


Category: **Window system**  
Manufacturer: **SC AGER-UNIKAT,  
Intorsura Buzaului,  
Romania**  
Product name: **MONT BLANC by UNIKAT**

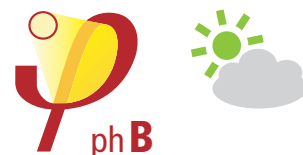
**This certificate was awarded based on the following  
criteria for the warm, temperate climate zone**

Comfort  $U_{W=1.00} \leq 1.00 \text{ W}/(\text{m}^2 \text{ K})$   
 $U_{W,\text{installed}} \leq 1.05 \text{ W}/(\text{m}^2 \text{ K})$   
with  $U_g = 0.90 \text{ W}/(\text{m}^2 \text{ K})$

Hygiene  $f_{Rsi=0.25} \geq 0.65$   
Airtightness  $Q_{100} = 0.20 \leq 0.25 \text{ m}^3/(\text{h m})$



warm, temperate climate



**CERTIFIED  
COMPONENT**

Passive House Institute

Passive House  
efficiency class

phE

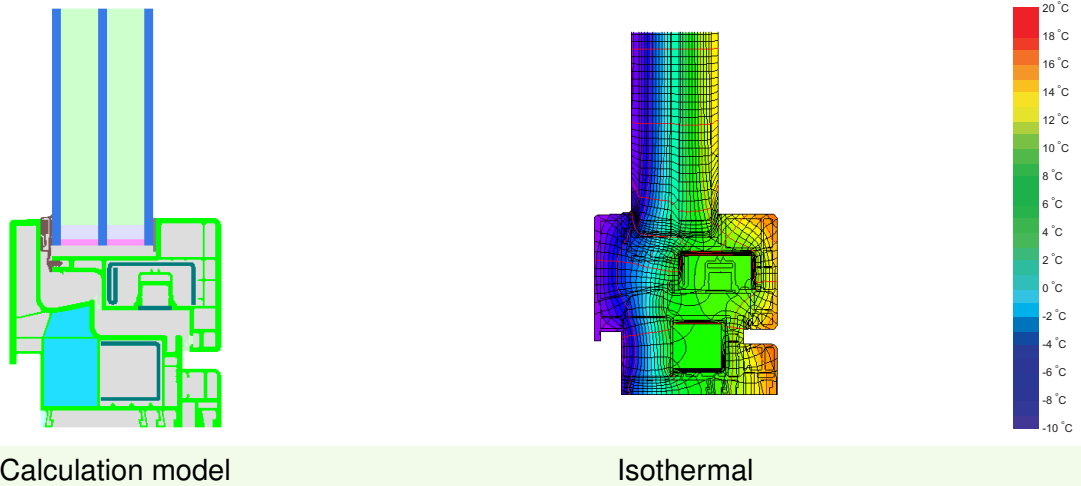
phD

phC

phB

phA

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



Calculation model Isothermal

**Description**

PVC frame with PU foam (IKD®, 0.026 W/(mK)) insulated chamber. The required temperature factor is not achieved at the threshold. The airtightness was approved for a window-door with fixed part (3305 \* 2546 mm). Frame 5060 with reinforcement 8727, sash 5061 reinforcement 5760, mullion 5062 with reinforcement 5762 and 5260 with reinforcement 5763, mullion 5063 with reinforcement 5767, threshold 2596/2576 con 5463 and 6105. Pane thickness: 48 mm (4/18/4/18/4), rebate depth: 18 mm. Spacer: SWISSPACER Ultimate.

**Explanation**


The window U-values were calculated for the test window size of 2.46 m × 1.48 m with  $U_g = 0.90 \text{ W}/(\text{m}^2 \text{ K})$ . If a higher quality glazing is used, the window U-values will improve as follows:


Glazing	$U_g =$	0.90	1.04	0.60	0.54	W/(m <sup>2</sup> K)
		↓	↓	↓	↓	
Window	$U_w =$	1.00	1.10	0.77	0.72	W/(m <sup>2</sup> 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.

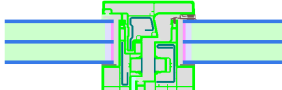
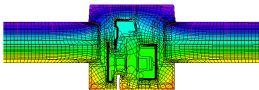
Further information relating to certification can be found on [www.passivehouse.com](http://www.passivehouse.com) and [passipedia.org](http://passipedia.org).

Frame values			Frame width $b_f$ mm	$U$ -value frame $U_f$ W/(m <sup>2</sup> K)	$\Psi$ -glazing edge $\Psi_g$ W/(m K)	Temp. Factor $f_{Rsi=0.25}$ [-]
Mullion fixed	(0M1)		100	1.36	0.023	0.66
Transom fixed	(0T1)		100	1.36	0.023	0.66
Mullion 1 casement	(1M1)		100	1.36	0.023	0.66
Transom 1 casement	(1T1)		100	1.36	0.023	0.66
Mullion 2 casements	(2M1)		154	1.42	0.023	0.65
Transom 2 casements	(2T1)		154	1.42	0.023	0.65
Bottom fixed	(FB1)		100	1.05	0.022	0.69
Top fixed	(FH1)		100	0.98	0.023	0.70
Lateral fixed	(FJ1)		100	0.98	0.023	0.70
Flying Mullion	(FM1)		100	1.36	0.023	0.66
Bottom	(OB1)		100	1.05	0.022	0.69
Top	(OH1)		100	0.98	0.023	0.70
Lateral	(OJ1)		100	0.98	0.023	0.70
Threshold	(OT2)		74	2.50	0.024	0.56
Spacer: SWISSPACER Ultimate			Secondary seal: Polysulfide			



**Mullion fixed**

$b_f = 100 \text{ mm}$   
 $U_f = 1.36 \text{ W/(m}^2 \text{ K)}$   
 $\Psi_g = 0.023 \text{ W/(m K)}$   
 $f_{Rsi} = 0.66$



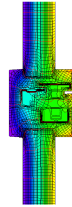
**Transom**  
fixed

$$b_f = 100 \text{ mm}$$

$$U_f = 1.36 \text{ W}/(\text{m}^2 \text{ K})$$

$$\Psi_g = 0.023 \text{ W}/(\text{m K})$$

$$f_{Rsi} = 0.66$$



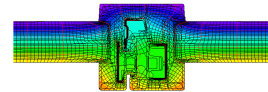
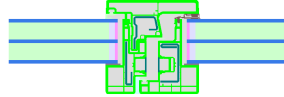
**Mullion**  
1 casement

$$b_f = 100 \text{ mm}$$

$$U_f = 1.36 \text{ W}/(\text{m}^2 \text{ K})$$

$$\Psi_g = 0.023 \text{ W}/(\text{m K})$$

$$f_{Rsi} = 0.66$$



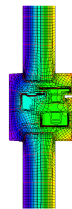
**Transom**  
1 casement

$$b_f = 100 \text{ mm}$$

$$U_f = 1.36 \text{ W}/(\text{m}^2 \text{ K})$$

$$\Psi_g = 0.023 \text{ W}/(\text{m K})$$

$$f_{Rsi} = 0.66$$



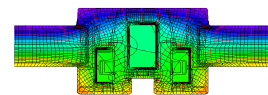
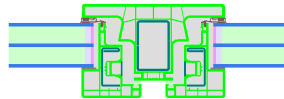
**Mullion**  
2 casements

$$b_f = 154 \text{ mm}$$

$$U_f = 1.42 \text{ W}/(\text{m}^2 \text{ K})$$

$$\Psi_g = 0.023 \text{ W}/(\text{m K})$$

$$f_{Rsi} = 0.65$$



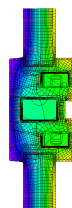
**Transom**  
2 casements

$$b_f = 154 \text{ mm}$$

$$U_f = 1.42 \text{ W}/(\text{m}^2 \text{ K})$$

$$\Psi_g = 0.023 \text{ W}/(\text{m K})$$

$$f_{Rsi} = 0.65$$





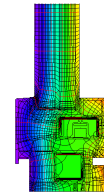
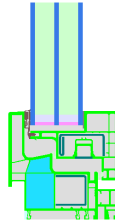
Bottom  
fixed

$$b_f = 100 \text{ mm}$$

$$U_f = 1.05 \text{ W/(m}^2 \text{ K)}$$

$$\Psi_g = 0.022 \text{ W/(m K)}$$

$$f_{Rsi} = 0.69$$



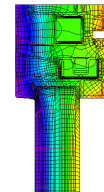
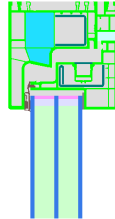
Top  
fixed

$$b_f = 100 \text{ mm}$$

$$U_f = 0.98 \text{ W/(m}^2 \text{ K)}$$

$$\Psi_g = 0.023 \text{ W/(m K)}$$

$$f_{Rsi} = 0.70$$



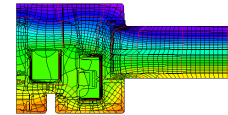
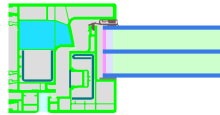
Lateral  
fixed

$$b_f = 100 \text{ mm}$$

$$U_f = 0.98 \text{ W/(m}^2 \text{ K)}$$

$$\Psi_g = 0.023 \text{ W/(m K)}$$

$$f_{Rsi} = 0.70$$



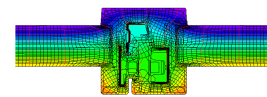
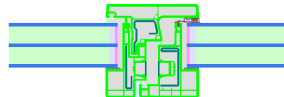
Flying Mullion

$$b_f = 100 \text{ mm}$$

$$U_f = 1.36 \text{ W/(m}^2 \text{ K)}$$

$$\Psi_g = 0.023 \text{ W/(m K)}$$

$$f_{Rsi} = 0.66$$



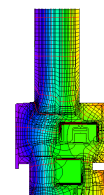
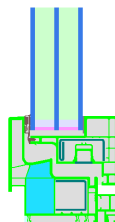
Bottom

$$b_f = 100 \text{ mm}$$

$$U_f = 1.05 \text{ W/(m}^2 \text{ K)}$$

$$\Psi_g = 0.022 \text{ W/(m K)}$$

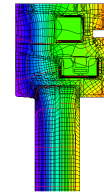
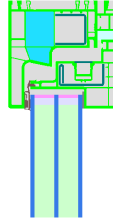
$$f_{Rsi} = 0.69$$





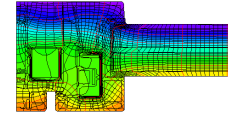
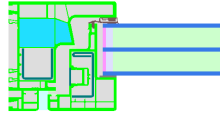
### Top

$b_f = 100 \text{ mm}$   
 $U_f = 0.98 \text{ W}/(\text{m}^2 \text{ K})$   
 $\Psi_g = 0.023 \text{ W}/(\text{m K})$   
 $f_{Rsi} = 0.70$



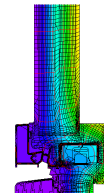
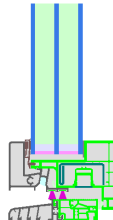
### Lateral

$b_f = 100 \text{ mm}$   
 $U_f = 0.98 \text{ W}/(\text{m}^2 \text{ K})$   
 $\Psi_g = 0.023 \text{ W}/(\text{m K})$   
 $f_{Rsi} = 0.70$

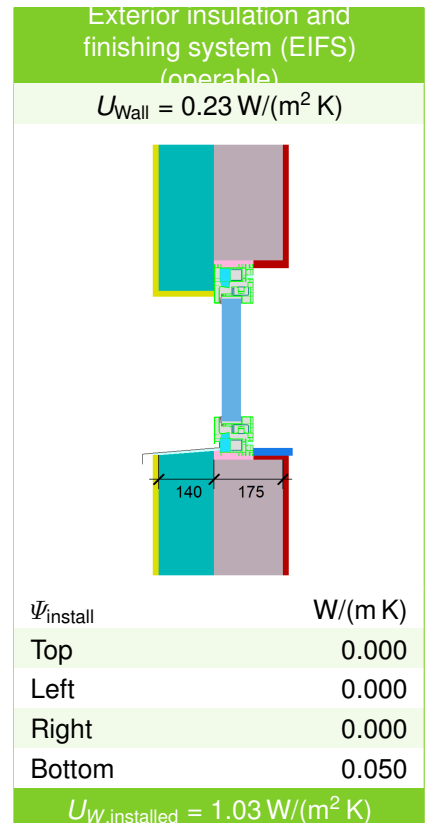
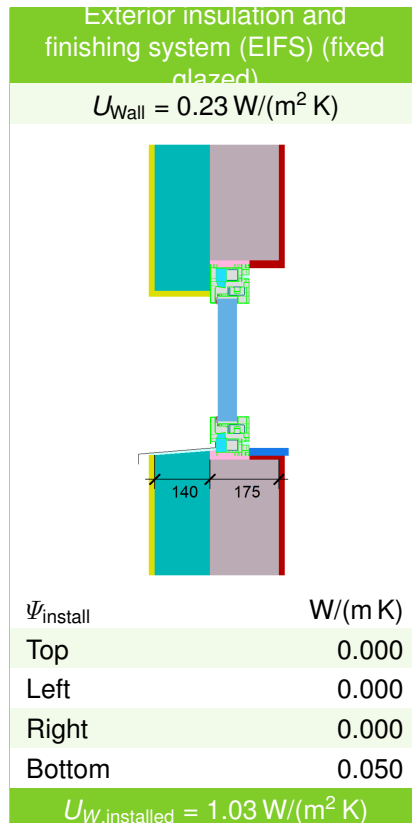
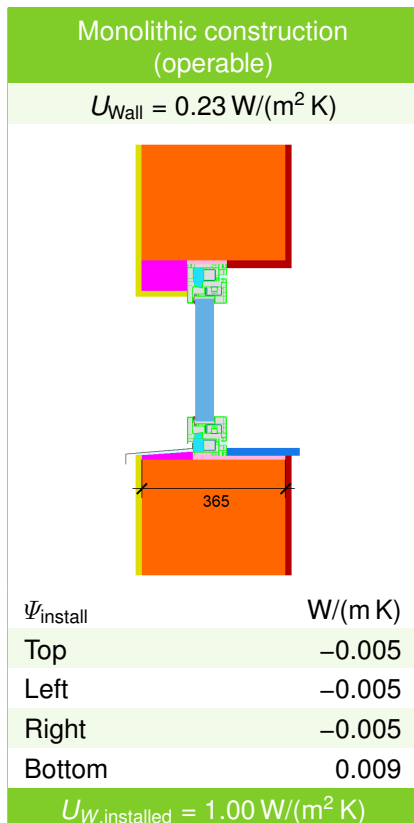
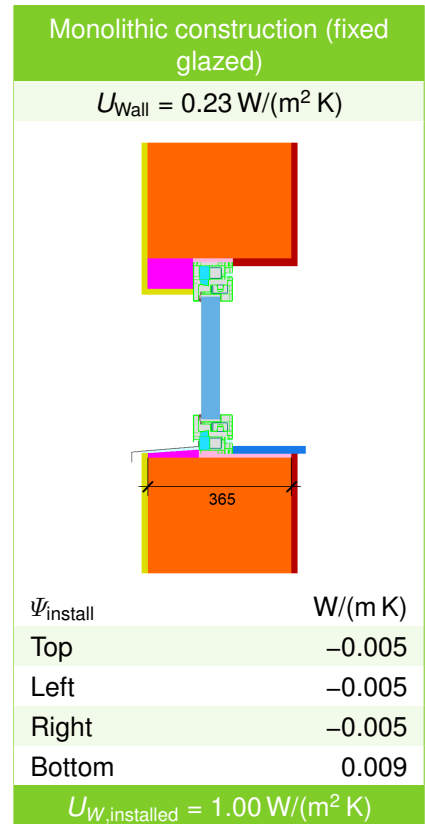
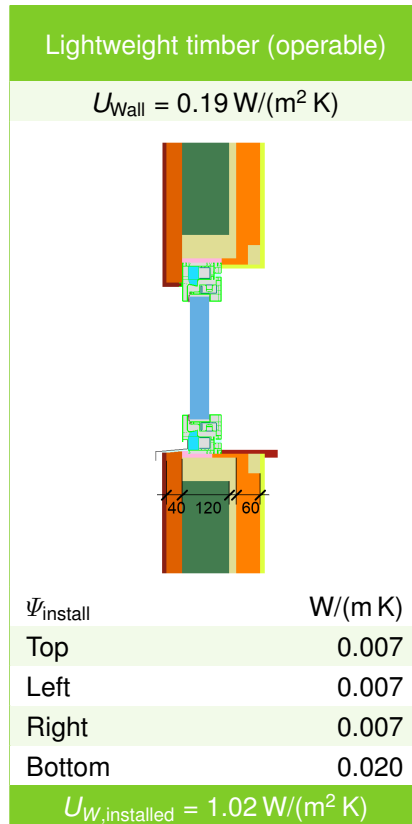
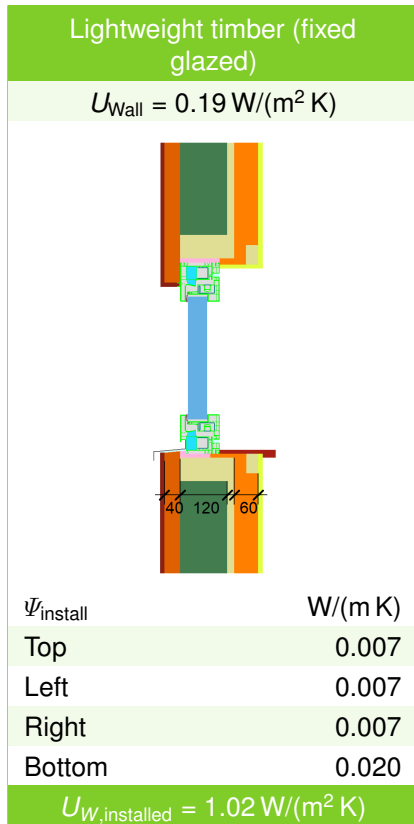


### Threshold

$b_f = 74 \text{ mm}$   
 $U_f = 2.50 \text{ W}/(\text{m}^2 \text{ K})$   
 $\Psi_g = 0.024 \text{ W}/(\text{m K})$   
 $f_{Rsi} = 0.56$

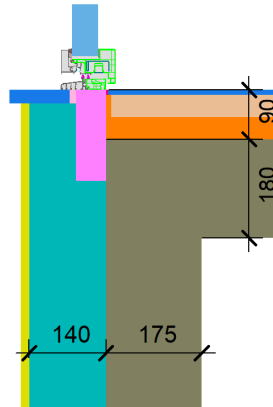


## Validated installations



Ext insulation a. finish. s. (EIFS)  
threshold ceiling (operable)

$$U_1 = 0.24 \text{ [W/(m}^2 \text{ K)]}$$



$$\Psi_{\text{install}} = 0.07 \text{ W/(m K)}$$