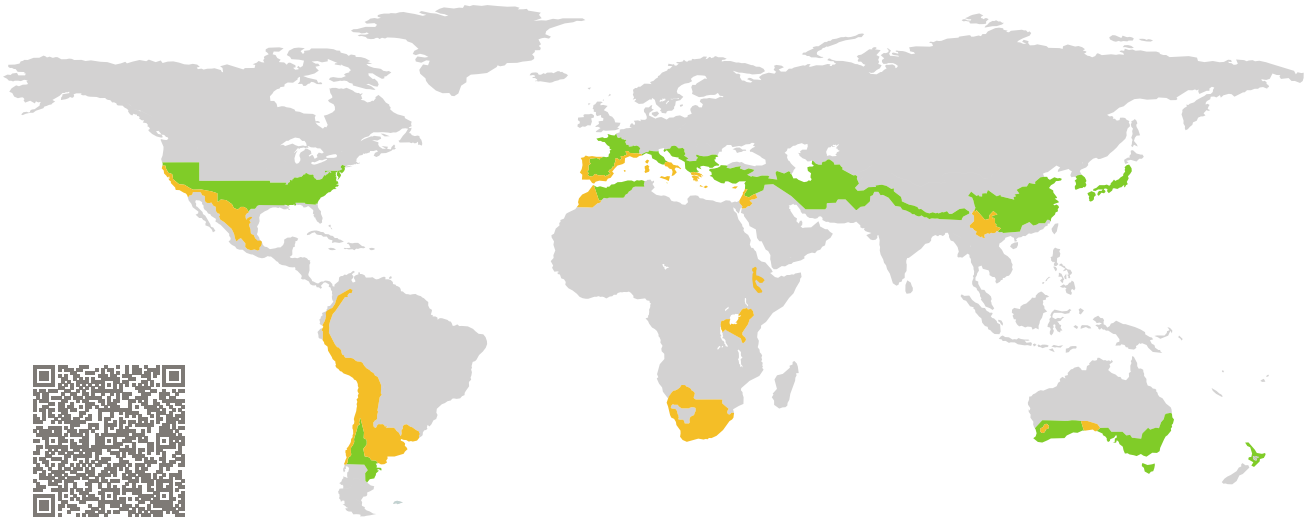
CERTIFICATE

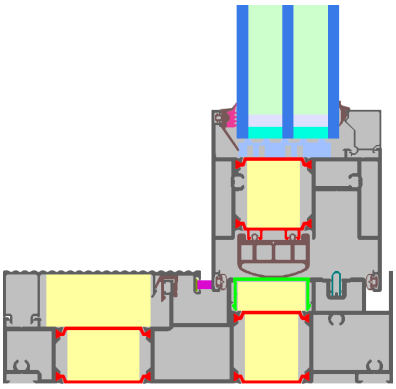
Certified Passive House Component

Component-ID 2392sl04 valid until 31st December 2025

Passive House Institute
Dr. Wolfgang Feist
64283 Darmstadt
Germany



Category:	**Sliding Door**
Manufacturer:	**Bucalus Windows (Doors) and Curtain Wall System Company Ltd, Qingyuan, Guangdong Province, China**
Product name:	**ASD210L**



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

Comfort	U_{SL} = 1.00	≤	1.00 W/(m² K)
	$U_{SL,installed}$	≤	1.05 W/(m² K)
	with U_g	=	0.90 W/(m² K)
Hygiene	$f_{Rsi=0.25}$	≥	0.65

warm, temperate climate

phB

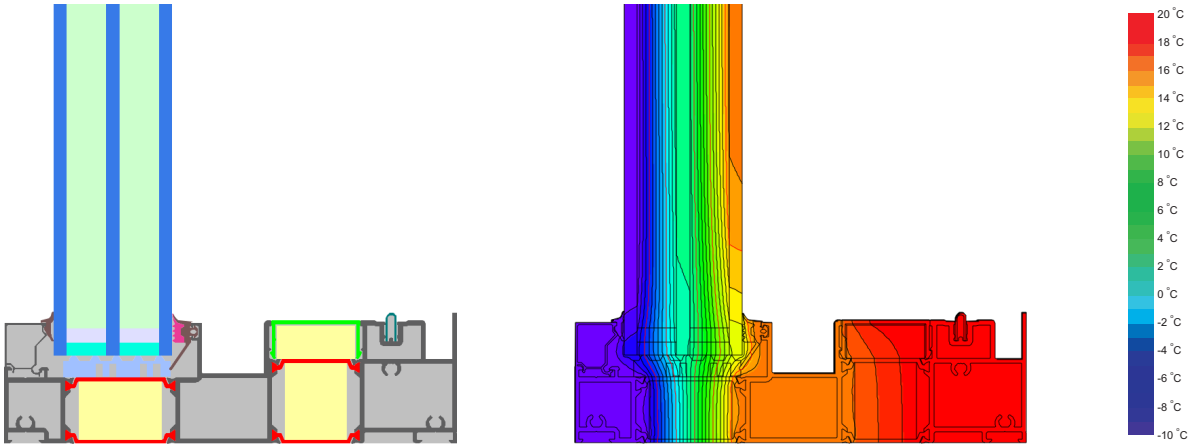
Passive House efficiency class	phE	phD	phC	phB	phA

CERTIFIED COMPONENT

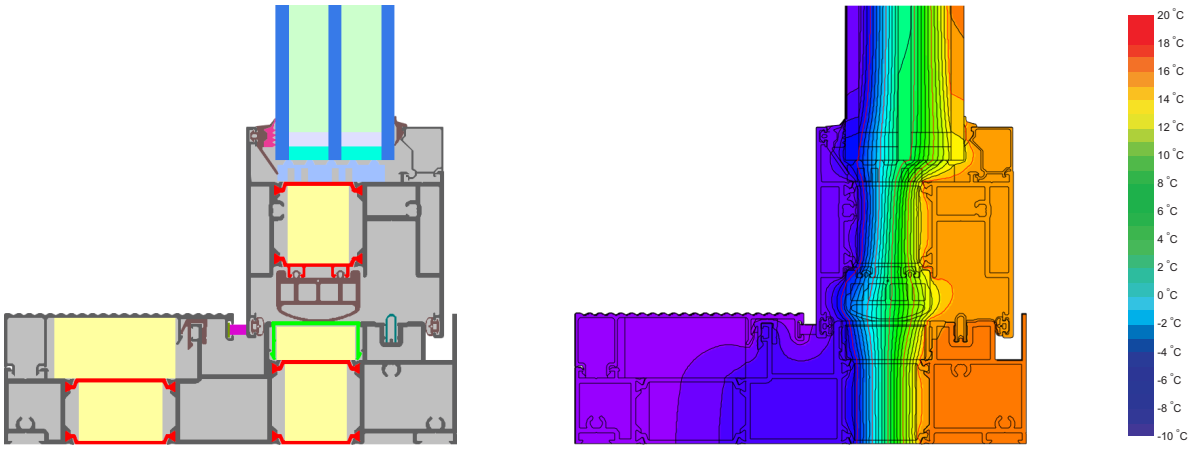
Passive House Institute

www.passivehouse.com

Bucalus Windows (Doors) and Curtain Wall System Company Ltd
No. 14 Baijia Industry Zone, High-tech Development Zone, 511500 Qingyuan, Guangdong Province, China
☎ +86 400 830 1300 | ✉ | http://www.bucalu.com |



Calculation model | Isothermal



Calculation model | Isothermal

Description

Aluminum sliding door, thermally broken with polyamide (25 % glass fiber, thermal conductivity 0,30 W/(mK)), insulated with Kingspan Kooltherm phenolic foam (0,022 W/(mK)). Glazing configuration: 6/18/6/18/6 mm, insert depth: 15 mm. Edge bond: Technoform SP16 with butyl secondary seal.

Explanation

The window U-values were calculated for the test window size of 2.40 m × 2.50 m with U_g = 0.90 W/(m² K). If a higher quality glazing is used, the window U-values will improve as follows:

Glazing	U_g =	0.90	0.70	0.64	0.58	W/(m² K)
		↓	↓	↓	↓	
Window	U_W =	1.00	0.84	0.80	0.75	W/(m² 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.

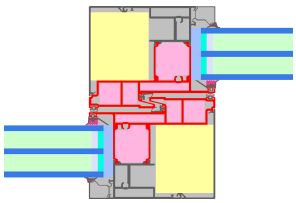
Further information relating to certification
can be found on www.passivehouse.com and passipedia.org.

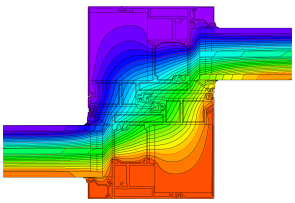
Frame values		Frame width b_f mm	U-value frame U_f W/(m² K)	Ψ-glazing edge Ψ_g W/(m K)	Temp. Factor $f_{Rsi=0.25}$ [-]
Mullion 1 casement	(1M1)	131	0.87	0.031	0.66
Bottom fixed	(FB1)	59	0.86	0.029	0.74
Top fixed	(FH1)	60	0.88	0.030	0.75
Lateral fixed	(FJ1)	57	0.91	0.030	0.75
Top	(OH1)	145	1.29	0.029	0.76
Lateral	(OJ1)	138	1.24	0.029	0.75
Threshold	(OT2)	148	1.19	0.029	0.76

Spacer: Technoform-Spacer SP16 Secondary seal: Butyl

Mullion
1 casement

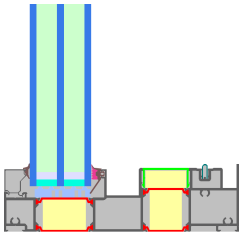
b_f = 131 mm
U_f = 0.87 W/(m² K)
Ψ_g = 0.031 W/(m K)
f_{Rsi} = 0.66

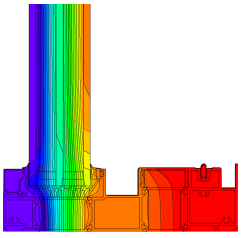




Bottom
fixed

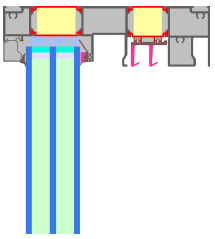
b_f = 59 mm
U_f = 0.86 W/(m² K)
Ψ_g = 0.029 W/(m K)
f_{Rsi} = 0.74

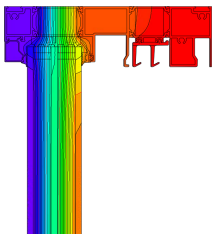




Top
fixed

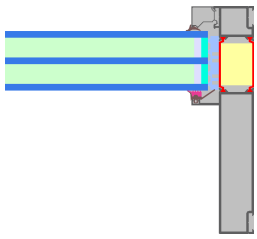
b_f = 60 mm
U_f = 0.88 W/(m² K)
Ψ_g = 0.030 W/(m K)
f_{Rsi} = 0.75

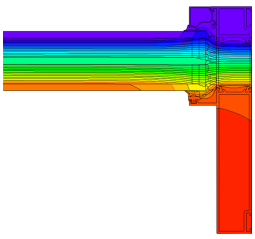




Lateral
fixed

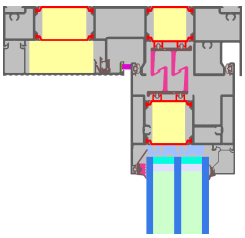
b_f = 57 mm
U_f = 0.91 W/(m² K)
Ψ_g = 0.030 W/(m K)
f_{Rsi} = 0.75

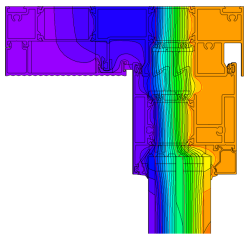




Top

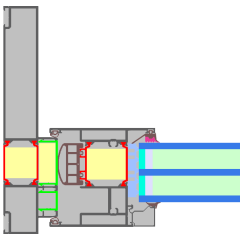
b_f = 145 mm
U_f = 1.29 W/(m² K)
Ψ_g = 0.029 W/(m K)
f_{Rsi} = 0.76

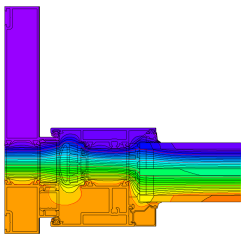




Lateral

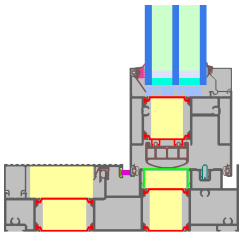
b_f = 138 mm
U_f = 1.24 W/(m² K)
Ψ_g = 0.029 W/(m K)
f_{Rsi} = 0.75

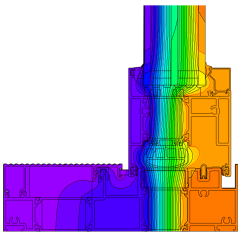




Threshold

b_f = 148 mm
U_f = 1.19 W/(m² K)
Ψ_g = 0.029 W/(m K)
f_{Rsi} = 0.76

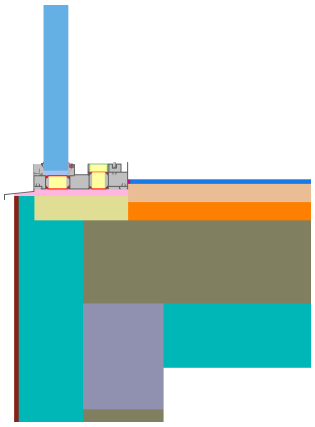




Validated installations

Exterior insul. and finish s. (EIFS) threshold (fixed glazing)

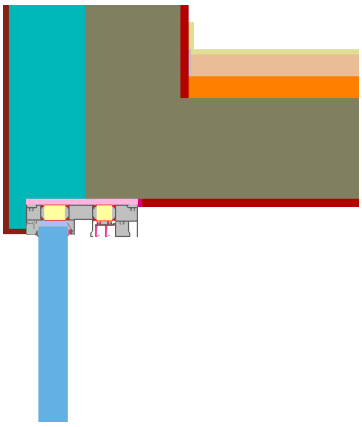
U_1 = 0.24 U_2 = 0.18 [W/(m² K)]



$\Psi_{install}$ = –0.01 W/(m K)

Exterior insulation and finishing s (EIFS) top (fixed glazing))

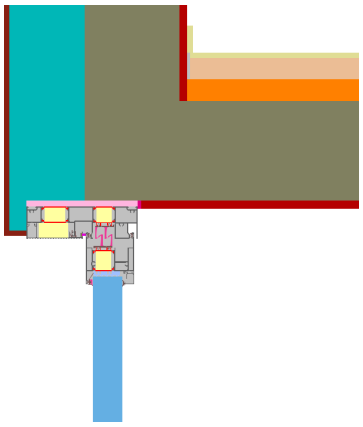
U_1 = 0.23 [W/(m² K)]



$\Psi_{install}$ = 0.01 W/(m K)

Exterior insulation and finishing s (EIFS) top (operable)

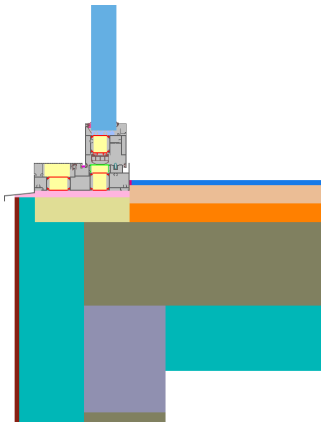
U_1 = 0.23 [W/(m² K)]



$\Psi_{install}$ = 0.09 W/(m K)

Exterior insulation and finishing s (EIFS) threshold (operable)

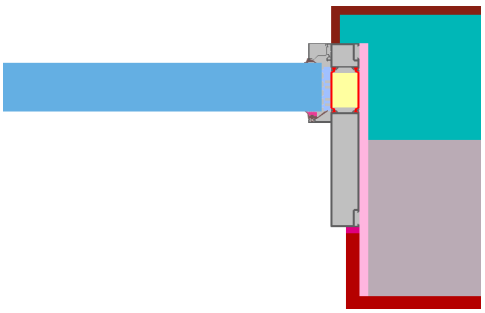
U_1 = 0.24 U_2 = 0.18 [W/(m² K)]



$\Psi_{install}$ = –0.01 W/(m K)

Exterior insulation and finishing s (EIFS) side (fixed glazed)

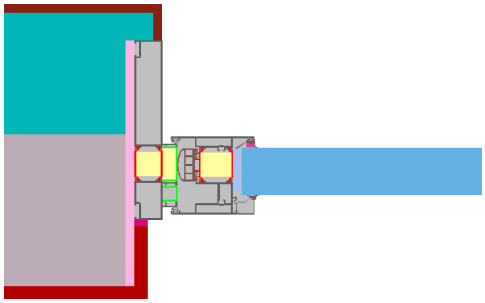
U_1 = 0.23 [W/(m² K)]



$\Psi_{install}$ = 0.01 W/(m K)

Exterior insulation and finishing system (EIFS) side (operable)

U_1 = 0.23 [W/(m² K)]



$\Psi_{install}$ = 0.10 W/(m K)