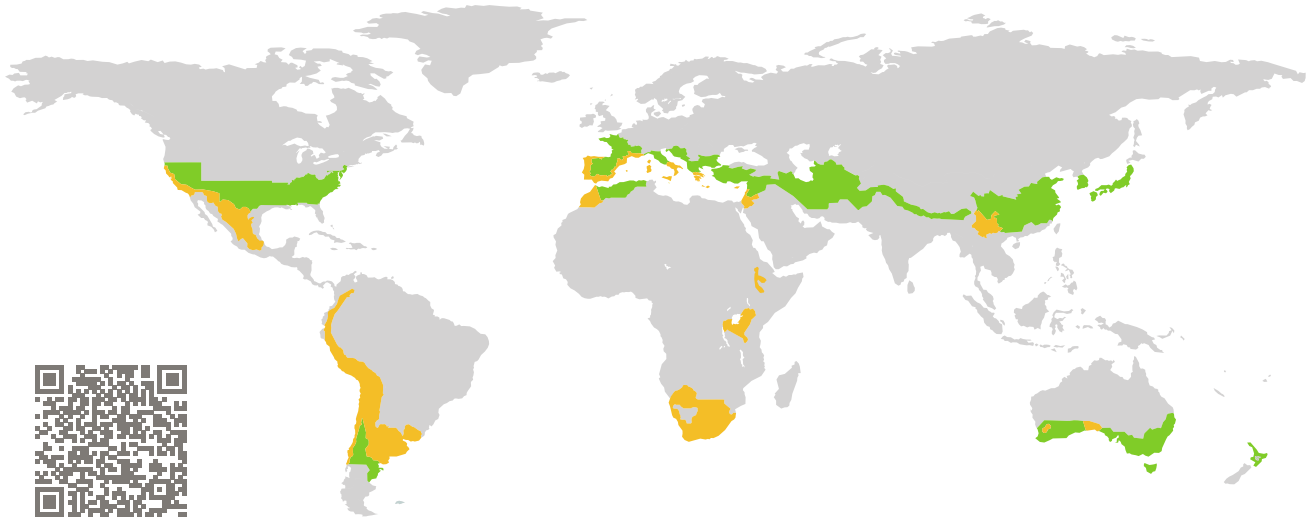


CERTIFICATE

Certified Passive House Component

Component-ID 1806ed04 valid until 31st December 2024

Passive House Institute
Dr. Wolfgang Feist
64283 Darmstadt
Germany

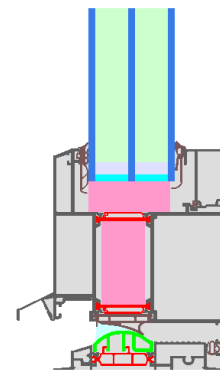


Category: **Entry door**
Manufacturer: **Alumil S.A.**
Efkarpia Thessaloniki
Greece
Product name: **SD95**

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

Comfort $U_D = 1.00 \leq 1.00 \text{ W}/(\text{m}^2 \cdot \text{K})$
 $U_{D,\text{installed}} \leq 1.05 \text{ W}/(\text{m}^2 \cdot \text{K})$
with $U_g^1 = 0.60 \text{ W}/(\text{m}^2 \cdot \text{K})$

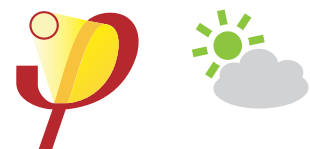
Hygiene $f_{Rsi=0.25} \geq 0.65$



(Inward opening)

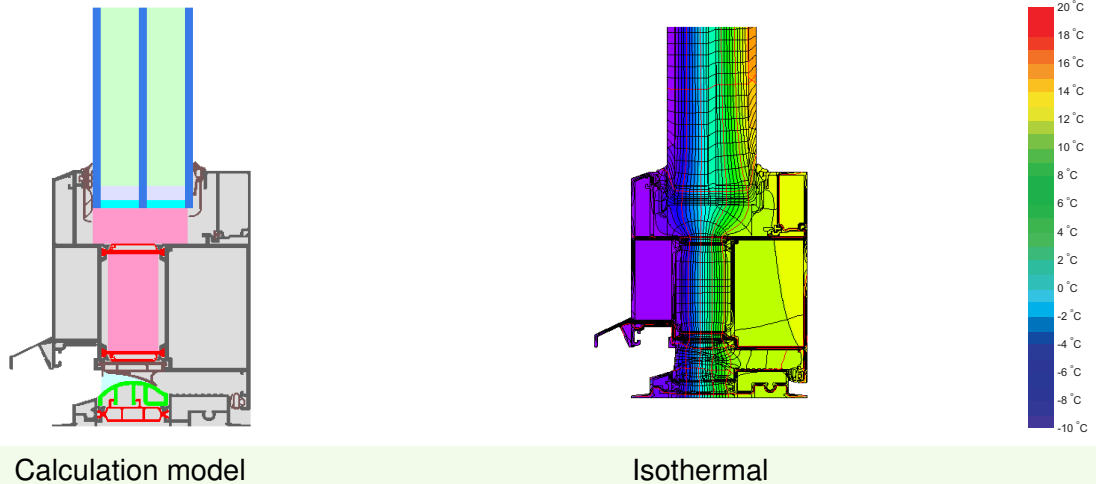
¹Fully glazed door

warm, temperate climate



**CERTIFIED
COMPONENT**

Passive House Institute



Calculation model

Isothermal

Description

Fully glazed aluminum door with thermal break made out of polyamid reinforced with glass fiber and insulation ($0.022 \text{ W/m}^2\text{K}$). Pane thickness: 48 mm (4/18/4/18/4), rebate depth: 18 mm. Spacer: SWISSPACER Ultimate with butyl as secondary seal.

Explanation

The U-values of the door apply to a door 1.10 m wide by 2.20 m tall.

A detailed report of the calculations performed in the context of certification is available from the manufacturer.

Unless stated otherwise, the air tightness was determined according to EN 1026 with respect to the joint length under climate load in conjunction with EN 1121 for the closed, non-locked door. The result corresponds at least to air-tightness class 3 according to EN 12207.

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.

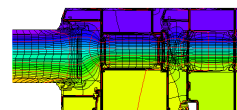
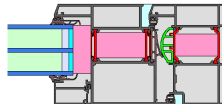
Further information relating to certification can be found on www.passivehouse.com and passipedia.org.

Frame values			Frame width b_f mm	U -value frame U_f W/(m ² · K)	Ψ edge Ψ_g W/(m · K)	Temp. Factor $f_{Rsi=0.25}$ [-]
Door hinge side	(DJ1)		161	1.49	0.021	0.72
Door lock side	(DL1)		161	1.60	0.021	0.73
Top	(OH1)		161	1.48	0.022	0.72
Threshold	(OT2)		122	1.48	0.022	0.70
Spacer: SWISSPACER ULTIMATE			Secondary seal: Butyl			



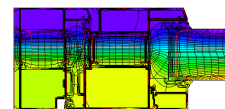
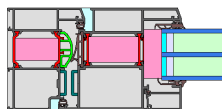
Door
hinge side

$b_f = 161 \text{ mm}$
 $U_f = 1.49 \text{ W/(m}^2 \cdot \text{K)}$
 $\Psi_g = 0.021 \text{ W/(m} \cdot \text{K)}$
 $f_{Rsi} = 0.72$



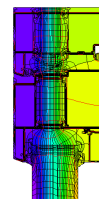
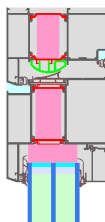
Door
lock side

$b_f = 161 \text{ mm}$
 $U_f = 1.60 \text{ W/(m}^2 \cdot \text{K)}$
 $\Psi_g = 0.021 \text{ W/(m} \cdot \text{K)}$
 $f_{Rsi} = 0.73$



Top

$b_f = 161 \text{ mm}$
 $U_f = 1.48 \text{ W/(m}^2 \cdot \text{K)}$
 $\Psi_g = 0.022 \text{ W/(m} \cdot \text{K)}$
 $f_{Rsi} = 0.72$





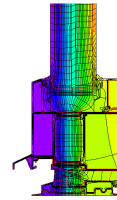
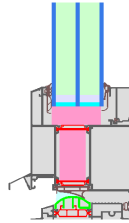
Threshold

$$b_f = 122 \text{ mm}$$

$$U_f = 1.48 \text{ W}/(\text{m}^2 \cdot \text{K})$$

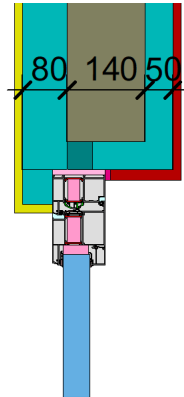
$$\Psi_g = 0.022 \text{ W}/(\text{m} \cdot \text{K})$$

$$f_{Rsi} = 0.70$$



Formwork blocks top (operable)

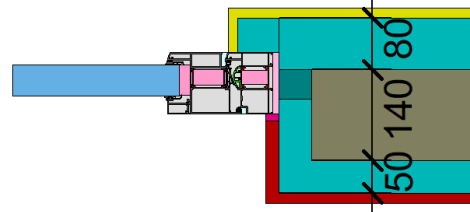
$$U_1 = 0.25 \quad [\text{W}/(\text{m}^2 \cdot \text{K})]$$



$$\psi_{\text{install}} = 0.014 \text{ W}/(\text{m} \cdot \text{K})$$

Formwork blocks side (operable)

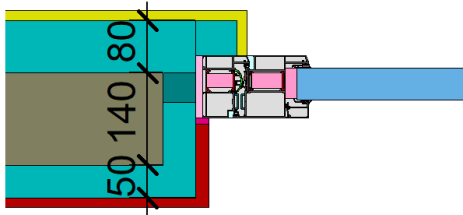
$$U_1 = 0.25 \quad [\text{W}/(\text{m}^2 \cdot \text{K})]$$



$$\psi_{\text{install}} = 0.010 \text{ W}/(\text{m} \cdot \text{K})$$

Formwork blocks side (operable)

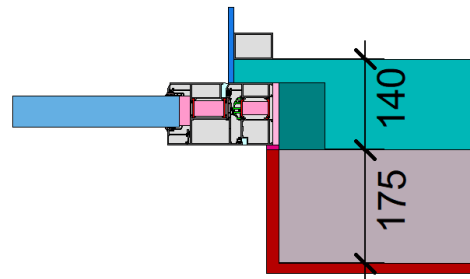
$$U_1 = 0.25 \quad [\text{W}/(\text{m}^2 \cdot \text{K})]$$



$$\psi_{\text{install}} = 0.010 \text{ W}/(\text{m} \cdot \text{K})$$

Ventilated facade (operable)

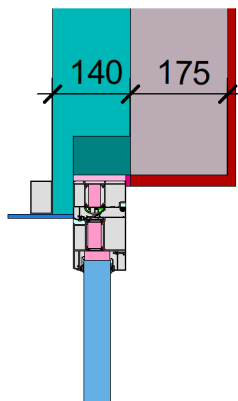
$$U_1 = 0.22 \quad [\text{W}/(\text{m}^2 \cdot \text{K})]$$



$$\psi_{\text{install}} = 0.009 \text{ W}/(\text{m} \cdot \text{K})$$

Ventilated facade (operable)

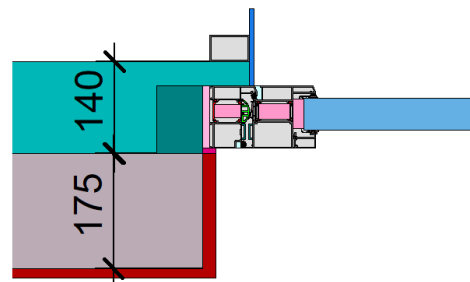
$$U_1 = 0.22 \quad [\text{W}/(\text{m}^2 \cdot \text{K})]$$



$$\psi_{\text{install}} = 0.009 \text{ W}/(\text{m} \cdot \text{K})$$

Ventilated facade (operable)

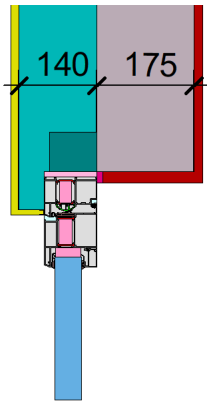
$$U_1 = 0.22 \quad [\text{W}/(\text{m}^2 \cdot \text{K})]$$



$$\psi_{\text{install}} = 0.009 \text{ W}/(\text{m} \cdot \text{K})$$

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

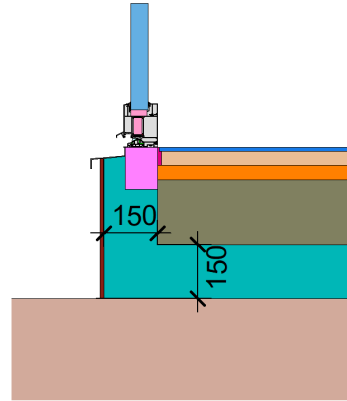
$$U_1 = 0.23 \quad [\text{W}/(\text{m}^2 \cdot \text{K})]$$



$$\Psi_{\text{install}} = 0.010 \text{ W}/(\text{m} \cdot \text{K})$$

Ext. ins. a. finish. s. (EIFS) threshold
floor slab (operable)

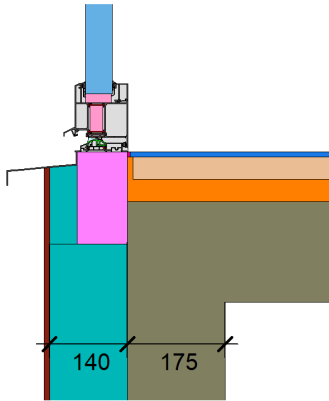
$$U_1 = 0.23 \quad [\text{W}/(\text{m}^2 \cdot \text{K})]$$



$$\Psi_{\text{install}} = 0.044 \text{ W}/(\text{m} \cdot \text{K})$$

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

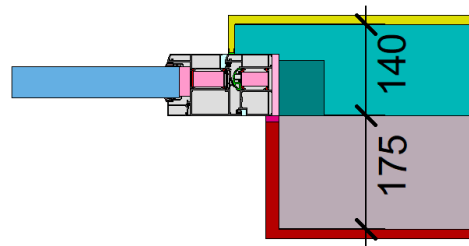
$$U_1 = 0.23 \quad [\text{W}/(\text{m}^2 \cdot \text{K})]$$



$$\Psi_{\text{install}} = 0.058 \text{ W}/(\text{m} \cdot \text{K})$$

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

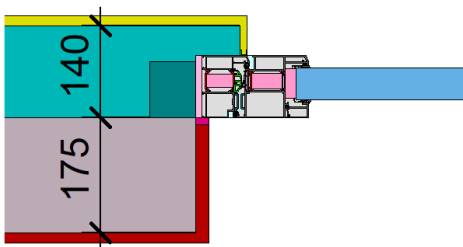
$$U_1 = 0.23 \quad [\text{W}/(\text{m}^2 \cdot \text{K})]$$



$$\Psi_{\text{install}} = 0.005 \text{ W}/(\text{m} \cdot \text{K})$$

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

$$U_1 = 0.23 \quad [\text{W}/(\text{m}^2 \cdot \text{K})]$$



$$\Psi_{\text{install}} = 0.005 \text{ W}/(\text{m} \cdot \text{K})$$

