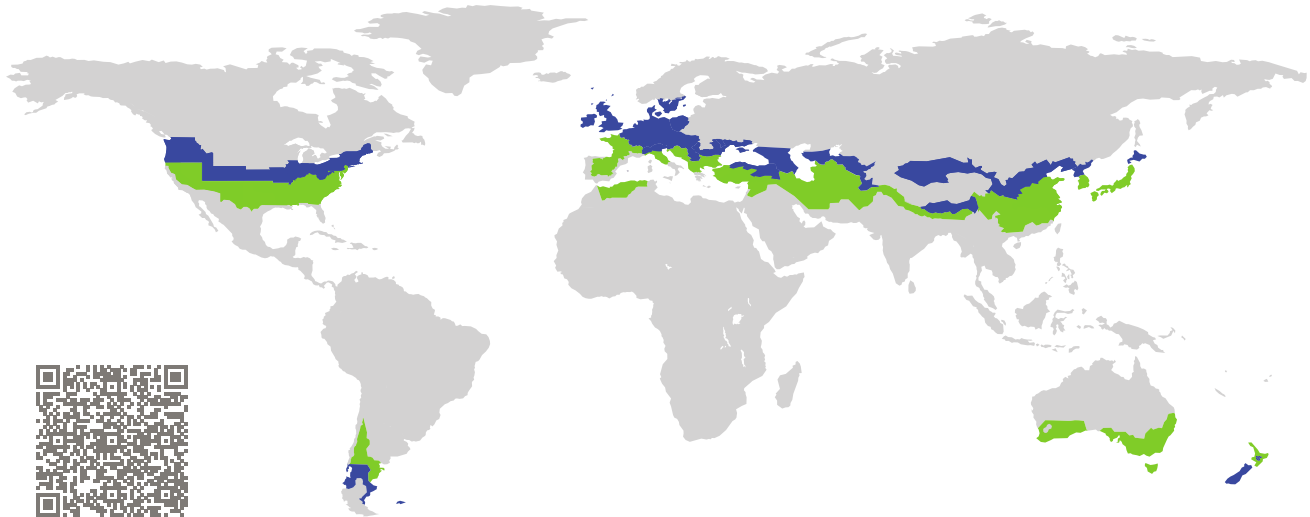


# CERTIFICATE

Certified Passive House Component

Component-ID 1252ds03 valid until 31st December 2020

Passive House Institute  
Dr. Wolfgang Feist  
64283 Darmstadt  
Germany

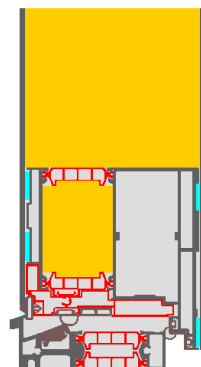


Category: **Door system**  
Manufacturer: **ViewMax Windows and Doors Limited**  
**Yanggu**  
**China**  
Product name: **Viewmax door**

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

Comfort  $U_D = 0.75 \leq 0.80 \text{ W}/(\text{m}^2 \text{ K})$   
 $U_{D,\text{installed}} \leq 0.85 \text{ W}/(\text{m}^2 \text{ K})$   
with  $U_{\text{door leaf}}^1 = 0.33 \text{ W}/(\text{m}^2 \text{ K})$

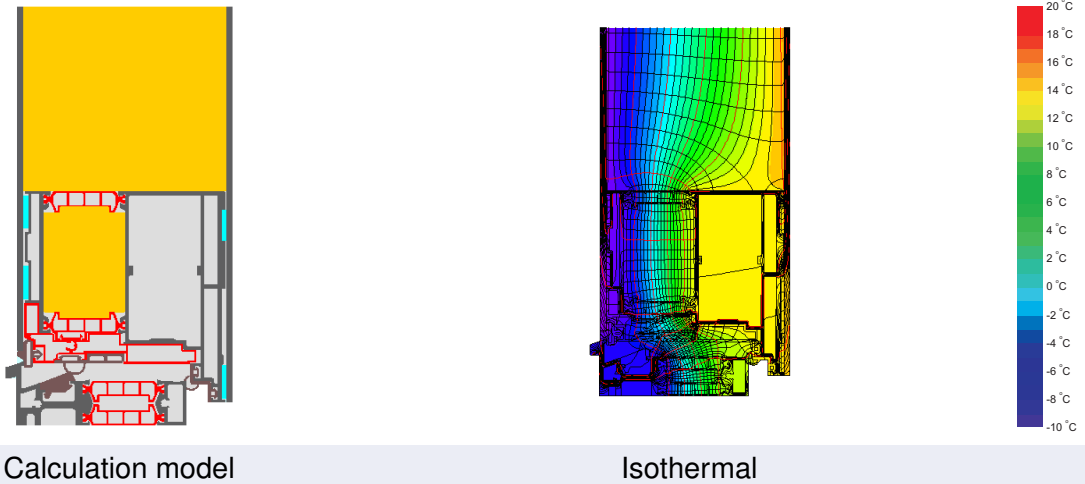
Hygiene  $f_{Rsi=0.25} \geq 0.70$   
Airtightness  $Q_{100} \leq 2.25 \text{ m}^3/(\text{h m})$



(Inward opening)

<sup>1</sup>U-value of the insulated area of door leaf





Calculation model Isothermal

### Description

Aluminium door leaf and frame (160 W/(mK)), bottom part of the frame si made of Polyamide (0,300 W/(mK), door leaf and frame insulated by XPS insulation (0.034 W/(mK)). U-value of the side-parts opaque filling: 0.59 W/(m<sup>2</sup>K). Aluminium threshold is thermally separated.

### Explanation








The U-values of the door apply to a combination of door and sidelight with fixed glazing, 2.20 m wide by 2.20 m tall. The door and the sidelight are both 1.10 m wide.


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.

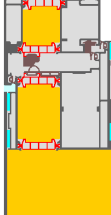
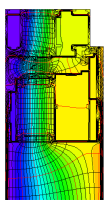
The Passive House Institute has defined international component criteria for seven climate zones. In principle, components which have been certified for climate zones with higher requirements may also be used in climates with less stringent requirements. In a particular climate zone it may make sense 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](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)	$\Psi$ edge $\Psi_g$ W/(m K)	Temp. Factor $f_{Rsi=0.25}$ [-]
Top	(to)		140	1.43	0.013	0.74
Top fixed	(tof)		80	1.31	0.006	0.80
Side fixed	(sf)		80	1.31	0.006	0.80
Bottom fixed	(bof)		80	1.31	0.006	0.80
Threshold	(th)		112	1.77	0.015	0.71
Hinge side Door	(hs)		140	1.43	0.013	0.74
Lock side Door	(ls)		140	1.42	0.013	0.75
Mullion 1 casement	(m1)		174	1.53	0.018	0.77
			Spacer: -	Secondary seal: -		


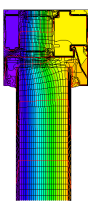
 **Top**


$b_f = 139.60$  mm  
 $U_f = 1.43$  W/(m<sup>2</sup> K)  
 $\Psi_g = 0.013$  W/(m K)  
 $f_{Rsi} = 0.74$

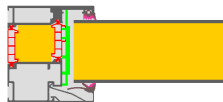
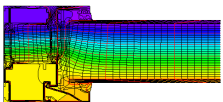
 **Top fixed**

$b_f = 79.90$  mm  
 $U_f = 1.31$  W/(m<sup>2</sup> K)  
 $\Psi_g = 0.006$  W/(m K)  
 $f_{Rsi} = 0.80$

 **Side fixed**

$b_f = 79.90$  mm  
 $U_f = 1.31$  W/(m<sup>2</sup> K)  
 $\Psi_g = 0.006$  W/(m K)  
 $f_{Rsi} = 0.80$



### Bottom

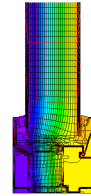
fixed

$$b_f = 79.90 \text{ mm}$$

$$U_f = 1.31 \text{ W}/(\text{m}^2 \text{ K})$$

$$\Psi_g = 0.006 \text{ W}/(\text{m K})$$

$$f_{Rsi} = 0.80$$



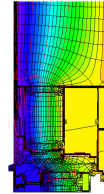
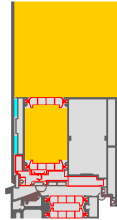
### Threshold

$$b_f = 111.80 \text{ mm}$$

$$U_f = 1.77 \text{ W}/(\text{m}^2 \text{ K})$$

$$\Psi_g = 0.015 \text{ W}/(\text{m K})$$

$$f_{Rsi} = 0.71$$



### Hinge side

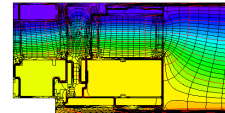
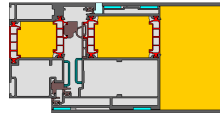
Door

$$b_f = 139.60 \text{ mm}$$

$$U_f = 1.43 \text{ W}/(\text{m}^2 \text{ K})$$

$$\Psi_g = 0.013 \text{ W}/(\text{m K})$$

$$f_{Rsi} = 0.74$$



### Lock side

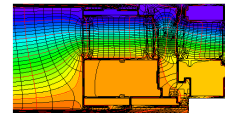
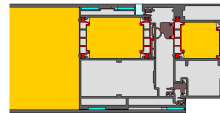
Door

$$b_f = 139.60 \text{ mm}$$

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

$$\Psi_g = 0.013 \text{ W}/(\text{m K})$$

$$f_{Rsi} = 0.75$$



### Mullion

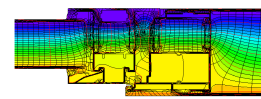
1 casement

$$b_f = 174.00 \text{ mm}$$

$$U_f = 1.53 \text{ W}/(\text{m}^2 \text{ K})$$

$$\Psi_g = 0.018 \text{ W}/(\text{m K})$$

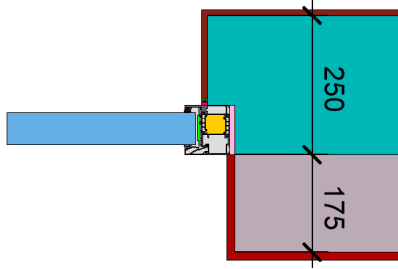
$$f_{Rsi} = 0.77$$



## Validated installations

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

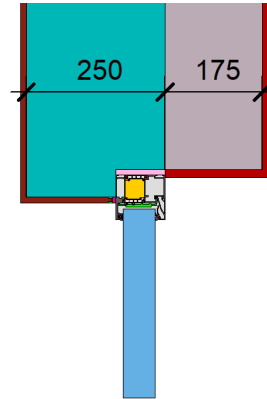
$$U_1 = 0.13 \text{ [W/(m}^2 \text{ K)]}$$



$$\Psi_{\text{install}} = 0.016 \text{ W/(m K)}$$

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

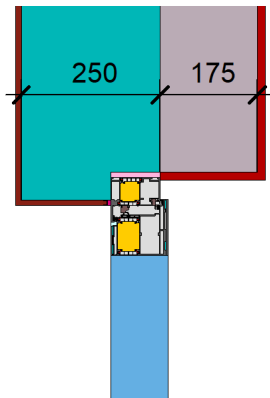
$$U_1 = 0.13 \text{ [W/(m}^2 \text{ K)]}$$



$$\Psi_{\text{install}} = 0.016 \text{ W/(m K)}$$

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

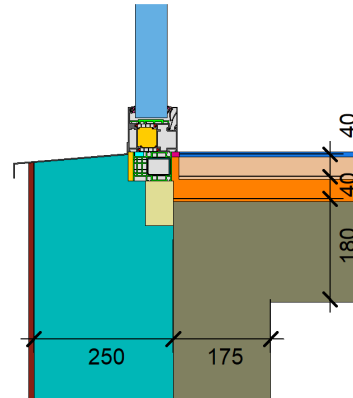
$$U_1 = 0.13 \text{ [W/(m}^2 \text{ K)]}$$



$$\Psi_{\text{install}} = 0.021 \text{ W/(m K)}$$

Ext insulation a. finish. s. (EIFS)  
threshold ceiling (fixed gl)

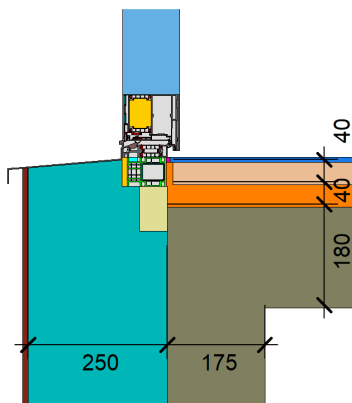
$$U_1 = 0.13 \text{ [W/(m}^2 \text{ K)]}$$



$$\Psi_{\text{install}} = 0.068 \text{ W/(m K)}$$

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

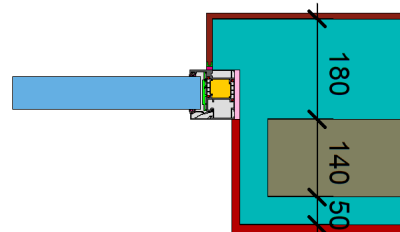
$$U_1 = 0.13 \text{ [W/(m}^2 \text{ K)]}$$



$$\Psi_{\text{install}} = 0.082 \text{ W/(m K)}$$

Formwork blocks side (fixed)

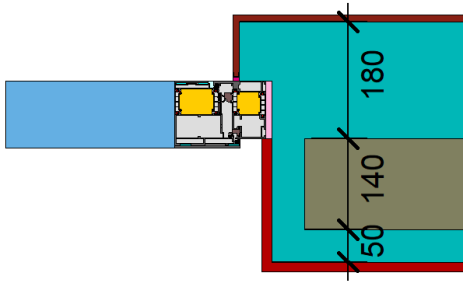
$$U_1 = 0.15 \text{ [W/(m}^2 \text{ K)]}$$



$$\Psi_{\text{install}} = 0.015 \text{ W/(m K)}$$

Formwork blocks side (operable)

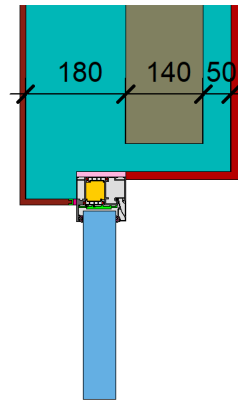
$$U_1 = 0.15 \text{ [W/(m}^2 \text{ K)]}$$



$$\Psi_{\text{install}} = 0.015 \text{ W/(m K)}$$

Formwork blocks top (fixed)

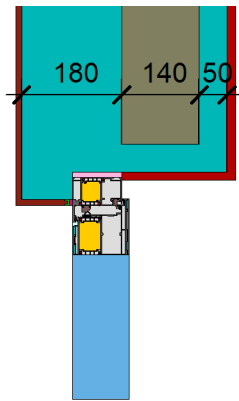
$$U_1 = 0.15 \text{ [W/(m}^2 \text{ K)]}$$



$$\Psi_{\text{install}} = 0.015 \text{ W/(m K)}$$

Formwork blocks top (operable)

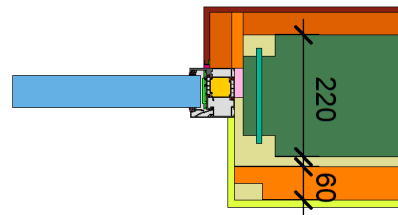
$$U_1 = 0.15 \text{ [W/(m}^2 \text{ K)]}$$



$$\Psi_{\text{install}} = 0.015 \text{ W/(m K)}$$

Lightweight timber side (fixed glazed)

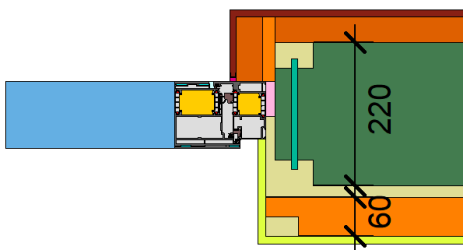
$$U_1 = 0.13 \text{ [W/(m}^2 \text{ K)]}$$



$$\Psi_{\text{install}} = 0.021 \text{ W/(m K)}$$

Lightweight timber side (operable)

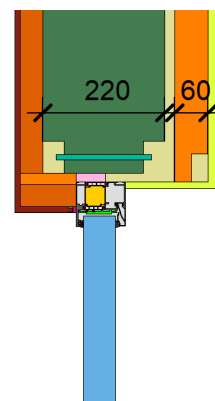
$$U_1 = 0.13 \text{ [W/(m}^2 \text{ K)]}$$



$$\Psi_{\text{install}} = 0.017 \text{ W/(m K)}$$

Lightweight timber top (fixed glazed)

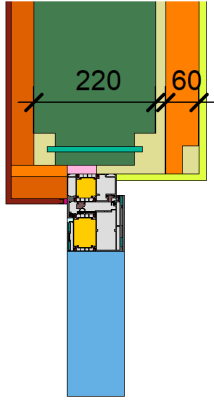
$$U_1 = 0.13 \text{ [W/(m}^2 \text{ K)]}$$



$$\Psi_{\text{install}} = 0.021 \text{ W/(m K)}$$

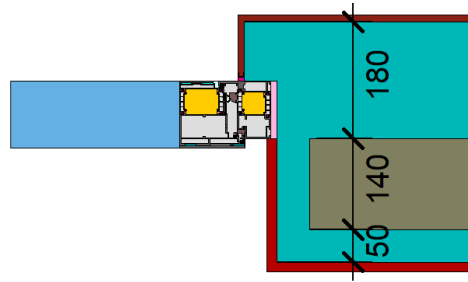
Lighthweight timber top (operable)

$$U_1 = 0.13 \text{ [W/(m}^2 \text{ K)]}$$



$$\Psi_{\text{install}} = 0.017 \text{ W/(m K)}$$

$$U_1 = 0.13 \text{ [W/(m}^2 \text{ K)]}$$



$$\Psi_{\text{install}} = 0.020 \text{ W/(m K)}$$

