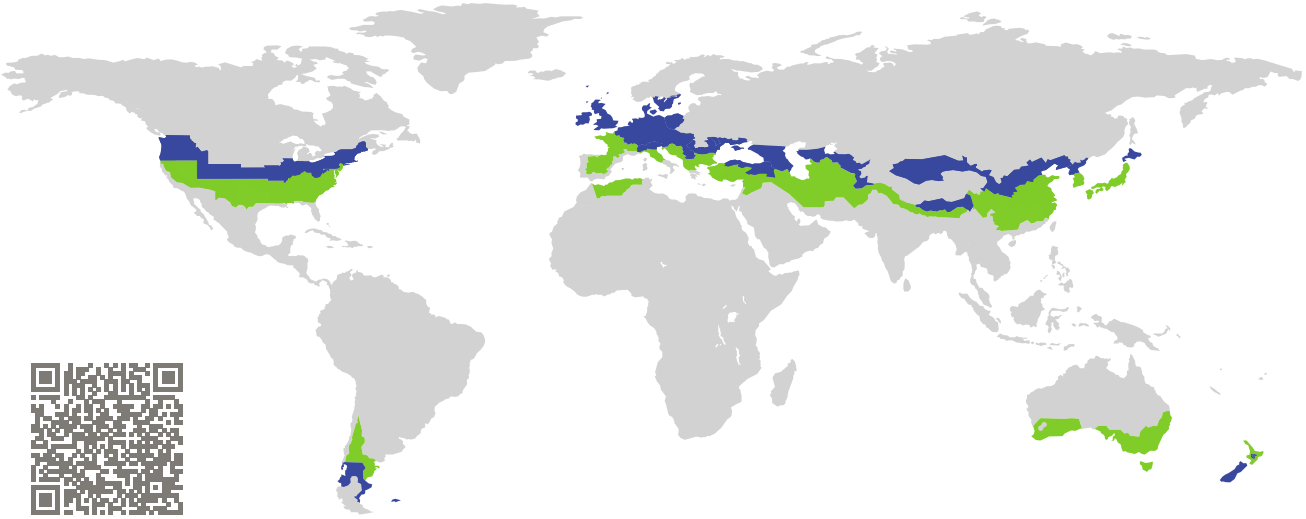
CERTIFICATE

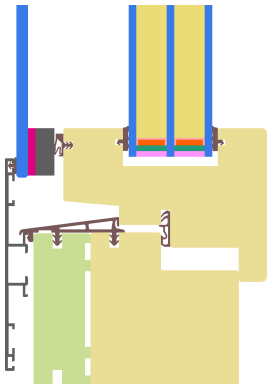
Certified Passive House Component

Component-ID 0026wi03 valid until 31st December 2017

Passive House Institute
Dr. Wolfgang Feist
64283 Darmstadt
Germany



Category:	**Window frame (Coupled Window)**
Manufacturer:	**batimet GmbH, Dresden, Germany**
Product name:	**TA35 SE VB**



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

Comfort	$U_W = 0.73$	$\leq$	0.80 W/(m² K)
	$U_{W,\text{installed}}$	$\leq$	0.85 W/(m² K)
	with U_g [1]	=	0.62 W/(m² K)
Hygiene	$f_{Rsi=0.25}$	$\geq$	0.70

[1]The specified U_g value is determined using the reference glazing of the climate zone in conjunction with the additional pane.

cool, temperate climate

phB

CERTIFIED COMPONENT

Passive House Institute

Passive House efficiency class	phE	phD	phC	phB	phA

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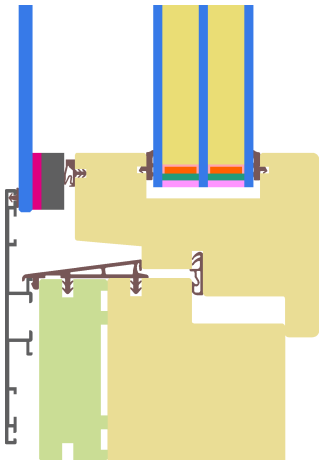
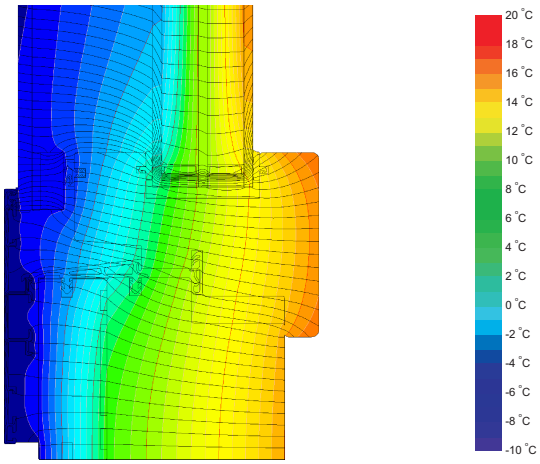


Calculation model



Isothermal

Description

Timber frame with insulation and external aluminium shell; coupled window with Ug = 0.62 W/(m^{2}K) (triple glazing Ug = 0.70 W/(m^{2}K) plus one additional pane (6 mm), 53 mm spacing); ensure use of glazing with appropriate g-values

Explanation

The window U-values were calculated for the test window size of 1.23 m × 1.48 m with U_g = 0.70 W/(m^2 K). If a higher quality glazing is used, the window U-values will improve as follows:

Glazing [2]	U_g =	0.70	0.64	0.58	0.53	W/(m^2 K)
		↓	↓	↓	↓	
Window	U_W =	0.73	0.69	0.66	0.64	W/(m^2 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.

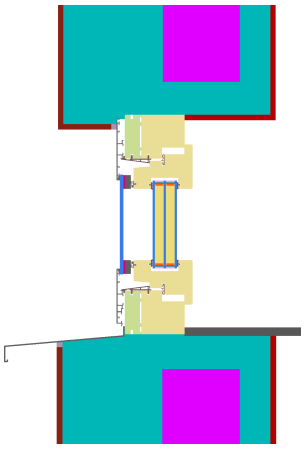
Further information relating to certification
can be found on www.passivehouse.com and passipedia.org.

[2]The specified U_g values refer to the thermally decisive pane.

Frame values		Frame width b_f mm	U-value frame U_f W/(m² K)	Ψ-glass edge Ψ_g W/(m K)	Temp. Factor $f_{Rsi=0.25}$ [-]
Top	(to)	135	0.70	0.032	0.73
Side	(s)	135	0.70	0.032	0.73
Bottom	(bo)	135	0.70	0.032	0.73
Mullion 1 casement	(m1)	170	0.74	0.031	0.72
Spacer: TGI Wave			Secondary seal: Polysulfide		

Validated installations

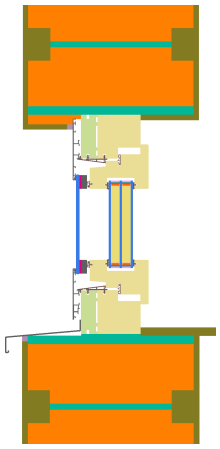
Insulated formwork blocks



$\Psi_{install}$	W/(m K)
Top	0.006
Side	0.006
Bottom	0.012

$U_{W,installed}$ = 0.75 W/(m² K)

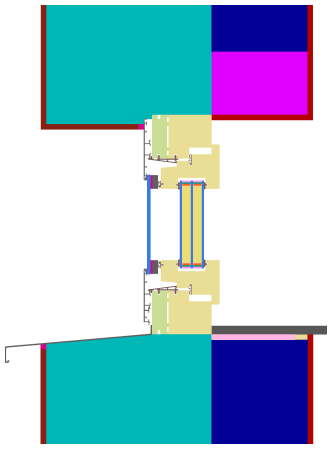
Timber frame



$\Psi_{install}$	W/(m K)
Top	0.010
Side	0.010
Bottom	0.018

$U_{W,installed}$ = 0.76 W/(m² K)

EIFS



$\Psi_{install}$	W/(m K)
Top	0.011
Side	0.011
Bottom	0.017

$U_{W,installed}$ = 0.76 W/(m² K)