CERTIFICATE

Certified Passive House Component

ID: 1160cs03 valid until 31. December 2025

Passive House Institute
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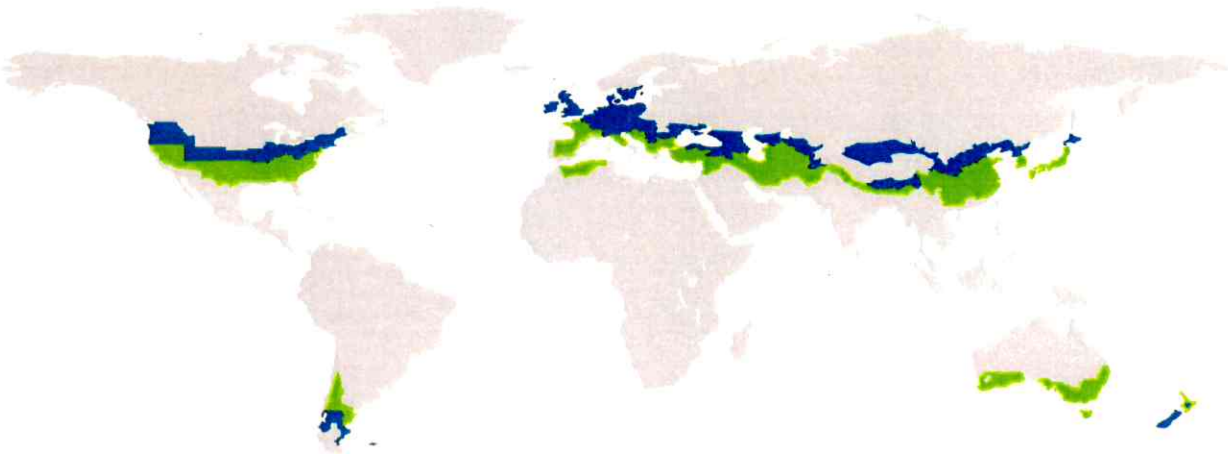

Category	**Construction system | Insulated formwork blocks**
Manufacturer	**Izodom 2000 Polska** **Zduńska Wola** **Poland**
Product name	**Izodom Complete Passive System**

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

Hygiene criterion

The minimum temperature factor of the interior surfaces is	$f_{Rsi=0,25m^2K/W} \geq$	**0,70**

Comfort criterion

The U-value of the installed windows is	$U_{w,i} \leq$	**0,85** W/(m²K)

Efficiency criteria

Heat transfer coefficient of building envelope	$U^* f_{PHI} \leq$	**0,15** W/(m²K)
Temperature factor of opaque junctions	$f_{Rsi=0,25m^2K/W} \geq$	**0,86**
Thermal bridge-free design for key connection details	$\Psi \leq$	**0,01** W/(m²K)

An airtightness concept for all components and connection details was provided

cool, temperate climate

CERTIFIED COMPONENT
Passive House Institute

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Opaque building envelope

The Izodom Complete Passive System is a concrete formwork construction system, insulated with 200mm thick EPS forms for the external walls, 250mm thick EPS roof panels and a combination of 250mm thick EPS and 100mm thick XPS panels in the floor slab. The roof structure takes the form of timber joists and counter battens. The system has undergone analysis by the Passive House Institute against the thermal performance criteria for cool-temperate climate zones, and although the ceiling connection detail does not quite meet the efficiency criteria, the system has been deemed suitable for the construction of passive houses in both cool-temperate and warm-temperate climates.

Windows

Analysis was undertaken using a generic, passive house standard timber-framed, triple-glazed window unit, featuring phA thermal values for the spacer and a polysulfide secondary seal. The calculations undertaken demonstrate that the window installation locations are suited to the warm-temperate climate zone, with no risk of surface condensation and subsequent mould growth.

Airtightness concept

The interior plaster works as the airtightness layer of the interior walls. In the roof a membrane provides the airtightness layer, which is connected to the plaster via airtightness tapes. The windows are connected in the same way. In the bottom, the concrete floor slab serves as airtightness layer.

Explanatory notes

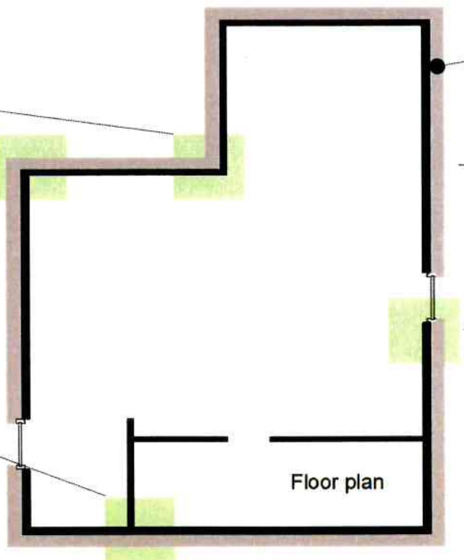
The Passive House Institute has defined international component criteria for seven climate zones based on hygiene, comfort and affordability criteria. In principle, components which have been certified for climate zones with higher requirements may also be used in climates with less stringent requirements. Their use might make economic sense in certain circumstances.

Thermal bridge not calculated
Criteria achieved
Efficieny criteria not achieved
Hygiene or comfort criterion not achieved

EW01	External wall
U [W/(m²K)]	0,15
Thickness [m]	0,375

EWIC01	
Ext. wall-inner corner	
Ψ [W//mK]	0,032
$f_{Rsi=0,25\ m^2K/W}$	0,97

EWEJ01	
Ext. wall panel joint	
Ψ [W/(mK)]	
$f_{Rsi=0,25\ m^2K/W}$	



EWEC01	
Ext. wall-outer corner	
Ψ [W//mK]	-0,058
$f_{Rsi=0,25\ m^2K/W}$	0,93

WISI			Window side
Typ	01	02	03
b_f [m]	0,12		
U_f [W/m²K]	0,76		
Ψ_g [W/mK]	0,027		
Ψ_i [W/mK]	0,01		
$f_{Rsi=0,25\ m^2K/W}$	0,82		

EWIW01	
Ext. wall-int. wall	
Ψ [W//mK]	0,002
$f_{Rsi=0,25\ m^2K/W}$	0,96

ROVE01	
Verge	
Ψ [W//mK]	-0,069
$f_{Rsi=0,25\ m^2K/W}$	0,94

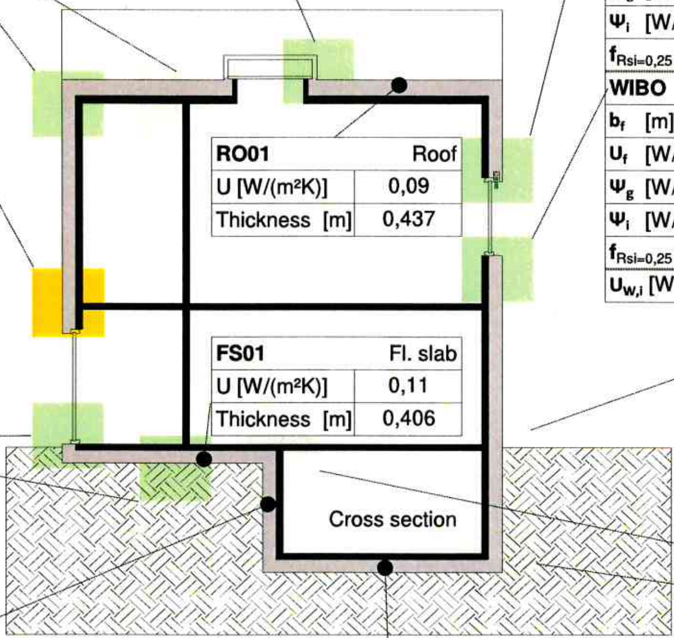
ROIW01	
Roof internal wall	
Ψ [W//mK]	
$f_{Rsi=0,25\ m^2K/W}$	

RWSI01	
Roof window side	
Ψ [W//mK]	0,029
$f_{Rsi=0,25\ m^2K/W}$	0,70

WITO			Window top
Typ	01	02	03
b_f [m]	0,12		
U_f [W/m²K]	0,76		
$Ψ_g$ [W/mK]	0,027		
$Ψ_i$ [W/mK]	0,004		
$f_{Rsi=0,25\ m^2K/W}$	0,82		
WIBO			**Window bottom**
b_f [m]	0,12		
U_f [W/m²K]	0,76		
$Ψ_g$ [W/mK]	0,027		
$Ψ_i$ [W/mK]	0,028		
$f_{Rsi=0,25\ m^2K/W}$	0,82		
$U_{w,i}$ [W//m²K]	**0,82**		

EWCE01	
Ext. wall-ceiling	
Ψ [W//mK]	0,014
$f_{Rsi=0,25\ m^2K/W}$	0,96

WITH01	
Window threshold	
b_f [m]	0,120
U_f [W/m²K]	0,76
$Ψ_e$ [W/mK]	0,027
$Ψ_i$ [W/mK]	0,012
$f_{Rsi=0,25\ m^2K/W}$	0,80
$U_{w,i}$ [W//m²K]	**0,80**



RO01	Roof
U [W/(m²K)]	0,09
Thickness [m]	0,437

FS01	Fl. slab
U [W/(m²K)]	0,11
Thickness [m]	0,406

FSIW01	
Fl. slab-int. w.	
Ψ [W//mK]	0,010
$f_{Rsi=0,25\ m^2K/W}$	0,95

BWBC01	Bsmnt w.-bsmnt c.
Ψ [W//mK]	
$f_{Rsi=0,25\ m^2K/W}$	

BWFS01	Bsmnt w.-fl. slab
Ψ [W//mK]	
$f_{Rsi=0,25\ m^2K/W}$	

FSBW01	Fl. slab-bsmnt w.
Ψ [W//mK]	
$f_{Rsi=0,25\ m^2K/W}$	

BW01	Basement wall
U [W/(m²K)]	
Thickness [m]	

FS02	Fl. slab	U [W/(m²K)]		Thickness [m]	

ROEA01	Eaves
Ψ [W//mK]	-0,047
$f_{Rsi=0,25\ m^2K/W}$	0,96

RWBO01	Roof window bttm
Ψ [W//mK]	0,027
$f_{Rsi=0,25\ m^2K/W}$	0,71

RWTO01	Roof window top
Ψ [W//mK]	0,032
$f_{Rsi=0,25\ m^2K/W}$	0,71

RORI01	Ridge
Ψ [W//mK]	-0,037
$f_{Rsi=0,25\ m^2K/W}$	0,94

FRAW01	
Flat roof asc. wall	
Ψ [W//mK]	
$f_{Rsi=0,25\ m^2K/W}$	

TC01	Cold roof
U [W/(m²K)]	
Thickness [m]	

ROJU01	Joint fam
Ψ [W//mK]	
$f_{Rsi=0,25\ m^2K/W}$	

FR01	Flat roof
U [W/(m²K)]	
Thickness [m]	

EO01	Overhang
U [W/(m²K)]	
Thickness [m]	

TCEA01	Cold roof eaves
Ψ [W//mK]	
$f_{Rsi=0,25\ m^2K/W}$	

EWEO01	Ext. wall overhang
Ψ [W//mK]	
$f_{Rsi=0,25\ m^2K/W}$	

BC01	Basement ceiling
U [W/(m²K)]	
Thickness [m]	

EWEO02	Ext. wall overhang
Ψ [W//mK]	
$f_{Rsi=0,25\ m^2K/W}$	

BCEW01	Bsmnt clg-ext. wall
Ψ [W//mK]	
$f_{Rsi=0,25\ m^2K/W}$	

FRRP01	Roof parapet
Ψ [W//mK]	
$f_{Rsi=0,25\ m^2K/W}$	

FSEW01	Fl. slab-ext. wall
Ψ [W//mK]	-0,078
$f_{Rsi=0,25\ m^2K/W}$	0,94

FSBW02	Fl. slab-bsmnt w.
Ψ [W//mK]	
$f_{Rsi=0,25\ m^2K/W}$	

BCIW01	Bsmnt clg-int. wall
Ψ [W//mK]	
$f_{Rsi=0,25\ m^2K/W}$	