



VitrineAlu
Bring light into living



LET'S BUILD A BETTER FUTURE

Window & door system **VWD104 Passive**

Thanks to its excellent thermal performances, the thermally broken window system VWD104 Passive meets all the requirements for the components used in passive buildings. This was confirmed by certificates granted by the Passive House Institute PHI Darmstadt. This system is intended for fabrication of external structure elements such as various types of windows, doors, shop fronts and spatial structures, which are highly resistant and characterized by excellent water & air tightness, and thermal & acoustic insulation performance.

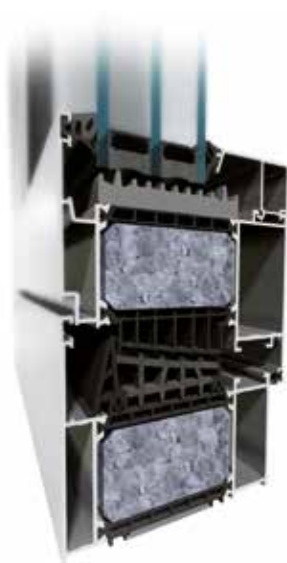


U_w from 0.59 W/(m²K)*

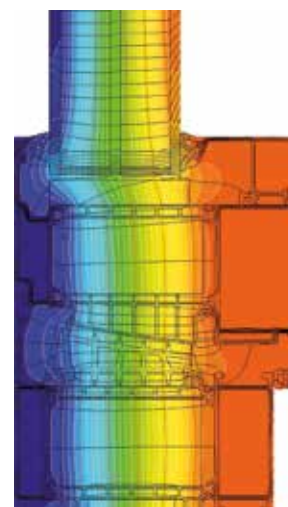
WINDOWS VWD104 Passive



VWD104 Passive Aero



VWD104 Passive SI



Isothermal lines in VWD104 Passive Aero window

Examples of heat transfer coefficients U_w

WINDOWS SCHEMES	SECTION A OR B	Value U_w [W/m ² K]			
		Glass with Swisspacer ULTIMATE frame			
		Three chamber	Double chamber		
		$U_g=0.3$	$U_g=0.5$	$U_g=0.7$	
	VWD104 Passive SI	 K519013X	0.47	0.62	0.78
		 K519013X + K519104X	0.56	0.68	0.80*
	VWD104 Passive AERO	 K819013X	0.45	0.60	0.75
		 K819013X + K819104X	0.52	0.64	0.76*

* according with PHI Darmstadt Certificate

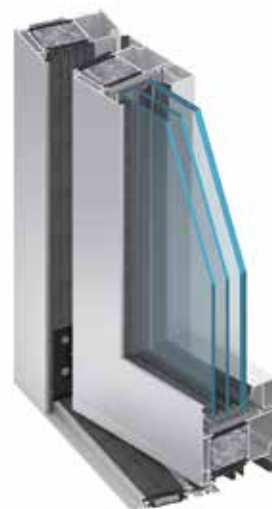
DOORS VWD104 Passive



VWD104 Passive SI



VWD104 Passive Aero



VWD104 Passive SI, RC3

Examples of heat transfer coefficients U_D

DOORS SCHEMES	SECTION A OR B	Value U_D [W/m ² K]		
		Glass with Swisspacer ULTIMATE frame		Panel G=60mm
		Double chamber		
		$U_g=0.5$	$U_g=0.7$	$U_p=0.55$
	VWD104 Passive SI K519141X+K519161X+009204	0.88	1.01	0.87
	VWD104 Passive SI+ K519141X+K519161X+009204	0.76	0.88	0.72*
	VWD104 Passive AERO K819141X+K819161X+009204	0.71	0.84	0.70

* according with PHI Darmstadt Certificate



FEATURES AND AESTHETICS

- windows certified by the Passive House Institute PHI Darmstadt (MB-104 Passive SI & MB-104 Passive Aero)
- excellent weather tightness & thermal insulation performance
- wide range of glazing, up to 81 mm allowing for triple and fourfold glazing units
- “Euro” grooves allow the fitting of most of the available hardware, both for aluminium and PVC windows
- can use surface, roller or concealed hinges
- expansion joint profiles for the door leaf
- 95 mm-wide threshold – the threshold and the frame have the same width
- anti-burglary windows and doors up to RC3 class

TECHNICAL SPECIFICATION	VWD104 PASSIVE WINDOWS	VWD104 PASSIVE DOORS
Frame depth	95 mm	95 mm
Casement depth	104 mm	95 mm
Glazing thickness	frame: 27 – 72 mm, vent: 34.5 – 81 mm	27 – 72 mm
Max. casement size (H×L)	H to 2900 mm, L to 1700 mm	H to 3000 mm, L to 1400 mm

PERFORMANCE	VWD104 PASSIVE WINDOWS	VWD104 PASSIVE DOORS
Air permeability	class 4, EN 12207	class 4, EN 12207
Water tightness	to class AE 1800, EN 12208	class E1200 Pa, EN 12208
Thermal insulation	U_w from 0,59 W/(m ² K)* U_w from 0,62 W/(m ² K)**	U_D from 0,66 W/(m ² K)***
Windload resistance	class C5/B5, EN 12210	class C4/B5, EN 12210
Burglary resistance	class RC1 to RC3, EN 1627	class RC1 to RC3, EN 1627

* - U_w for VWD104 PASSIVE Aero-based fixed window casement size 1700×2900 mm, with glazing $U_g=0,5$ W/(m²K)

** - U_w for VWD104 PASSIVE Aero-based openable window casement size 1700×2150 mm, with glazing $U_g=0,5$ W/(m²K)

*** - U_D for VWD104 PASSIVE Aero door size 1400×3000 mm, with glazing $U_g=0,5$ W/(m²K)

