Window and door system

MB-104 Passive

Thanks to its excellent thermal performances, the thermally broken window system **MB-104 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.

cool, temperate climate

phB

CERTIFIED COMPONENT

Passive House Institute

- *U_w for openable window from 0,53 W/(m²K)*

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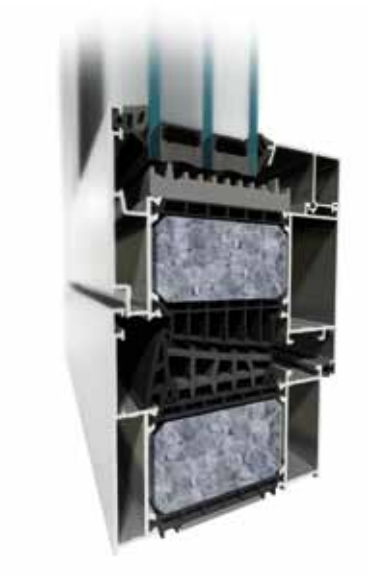
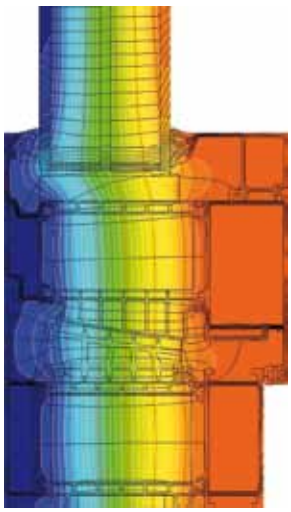
WINDOW MB-104 Passive

MB-104 Passive Aero

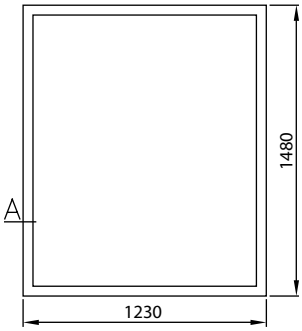
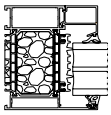
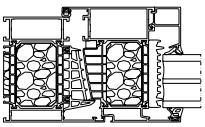
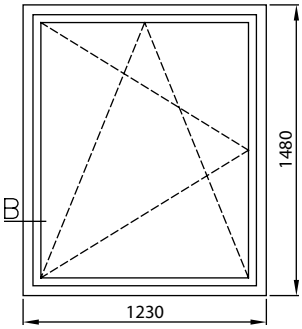
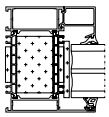
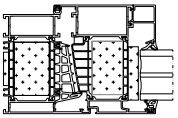


MB-104 Passive SI



Isothermal lines
in MB-104 Passive Aero window

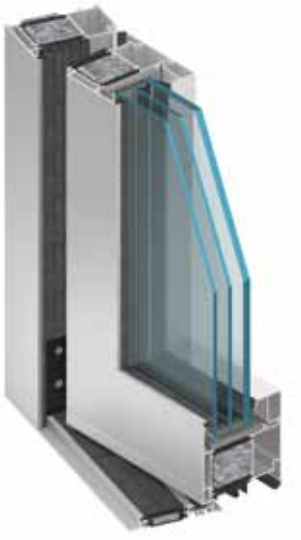
Examples of heat transfer coefficients U_w

WINDOWS SCHEMES	SECTION A OR B		Value U_w [W/m²K]		
			Glass with Swisspacer ULTIMATE frame		
			Three-chamber	Double chamber	
			U_g=0,3	U_g=0,5	U_g=0,7
	MB-104 Passive SI	 K519013X	0,47	0,62	0,78
		 K519013X + K519104X	0,56	0,68	0,80
	MB-104 Passive AERO	 K819013X	0,45	0,60	0,75
		 K819013X + K819104X	0,52	0,64	0,76

DOOR MB-104 Passive

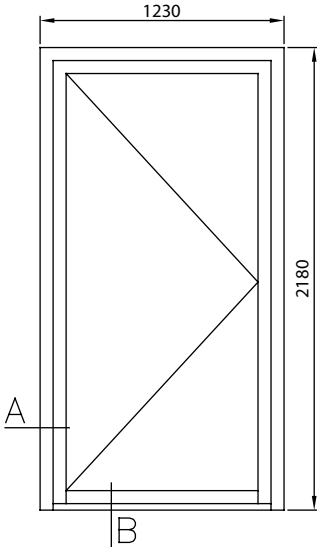
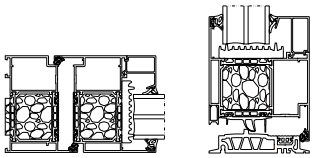
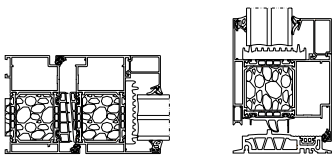
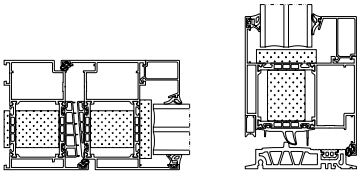
MB-104 Passive SI Door

MB-104 Passive Aero Door



MB-104 Passive SI Door, RC3

Examples of heat transfer coefficients U_D

DOOR SCHEME	SECTION A OR B		Value U_D [W/m²K]		
			Glass with Swisspacer ULTIMATE frame		Panel G=60mm
			Double chamber		
			U_g=0,5	U_g=0,7	U_g=0,55
	MB-104 Passive SI	 K519141X+K519161X+009204	0,81	0,94	0,79
	MB-104 Passive SI+	 K519141X+K519161X+009204	0,72	0,85	0,70
	MB-104 Passive AERO	 K819141X+K819161X+009204	0,69	0,82	0,67

FEATURES AND BENEFITS

- 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	WINDOWS MB-104 PASSIVE	DOOR MB-104 PASSIVE
Depth of frame	95 mm	95 mm
Depth of leaf	104 mm	95 mm
Glazing range	freme: 27 – 72 mm vent: 34,5 – 81 mm	27 – 72 mm
MAX DIMENSIONS AND WEIGHT OF THE CONSTRUCTION		
Maximum size of leaf (H×L)	H to 2900 mm L to 1700 mm	H to 3000 mm L to 1400 mm
Max weight of leaf	160 kg	200 kg

TECHNISCHE GEGEVENS	WINDOWS MB-104 PASSIVE	DOOR MB-104 PASSIVE
Air Permeability	class 4, PN-EN 12207:2001	class 4, PN-EN 12207:2001
Watertightness	to class AE 1800, PN-EN 12208:2001	class E1200 Pa, PN-EN 12208:2001
Thermal insulation	U_W from 0,53 W/(m²K) *	U_D from 0,53 W/(m²K) **
Windload resistance	class C5/B5, PN-EN 12210:2001	class C4/B5, PN-EN 12210:2001
Burglary resistance	class RC1 to RC3, EN 1627	class RC1 to RC3, EN 1627

* – U_W for MB-104 Passive Aero-based openable window casement size 1700 × 2100 mm, with glazing U_g=0,4 W/(m²K)
** – U_D for panel door MB-104 Passive Aero casement size 1230 × 2180 mm

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