



## WINDOW AND DOOR SYSTEMS

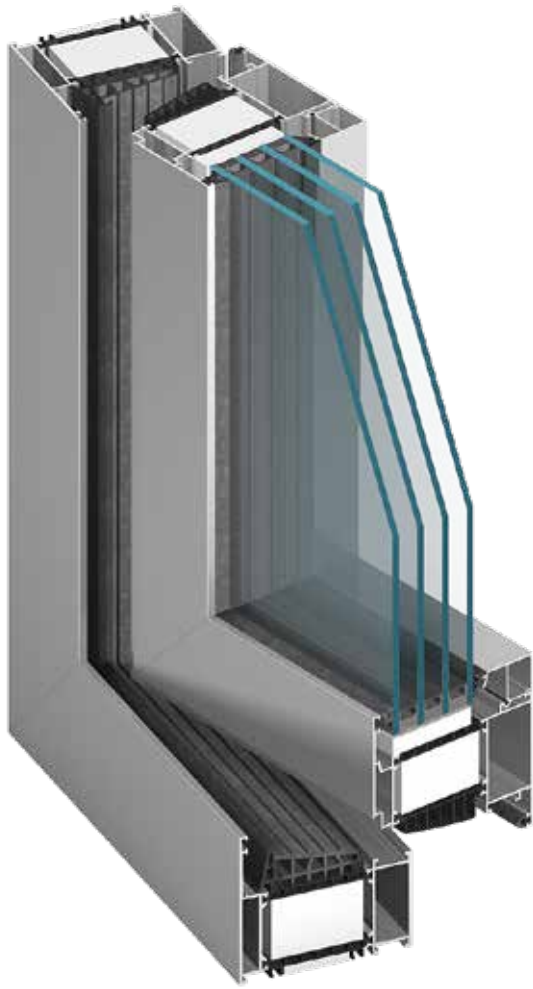
# MB-104 Passive

Thanks to its excellent thermal performances, the thermally broken window and door 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.

$U_w$  for openable window from  $0.53 \text{ W}/(\text{m}^2\text{K})$



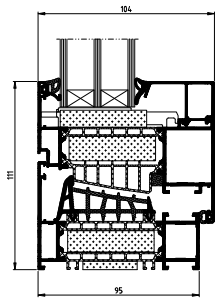
Dedicated windows for energy-efficient homes and Passivhauses



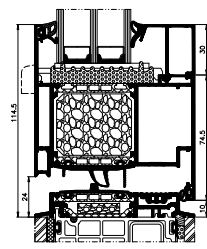
Window MB-104 Passive Aero



Door MB-104 Passive SI



MB-104 Passive Aero opening window – cross-section



MB-104 Passive SI door – cross-section

## FEATURES AND BENEFITS

- the MB-104 Passive SI and MB-104 Passive Aero windows and doors hold certificates from the Passive House Institute in Darmstadt, Germany
- high thermal insulation parameters from 0.53 W/(m<sup>2</sup>K) for operable windows and a U<sub>D</sub> starting at 0.60 W/(m<sup>2</sup>K) for doors\*\*
- airtightness, watertightness and insulation parameters surpassing the applicable standards
- 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



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	frame: 27 – 72 mm, vent: 34.5 – 81 mm	27 – 72 mm
MAX DIMENSIONS OF THE CONSTRUCTION		
Max. size of leaf (H×W)	H to 2900 mm, W to 1700 mm	H to 3000 mm, W to 1400 mm
PERFORMANCE	WINDOWS MB-104 PASSIVE	DOOR MB-104 PASSIVE
Air Permeability	class 4, EN 12207	class 4, EN 12207
Watertightness	to class AE E 3600***, EN 12208	class E1500 Pa, EN 12208
Thermal insulation	U <sub>w</sub> from 0.53 W/(m <sup>2</sup> K)*	U <sub>D</sub> from 0.60 W/(m <sup>2</sup> K)**
Windload resistance	class C5/B5, EN 12210	class C4/B5, EN 12210

\* - U<sub>w</sub> for MB-104 Passive Aero-based operable window casement size 1700×2100 mm, with glazing U<sub>g</sub>=0,4 W/(m<sup>2</sup>K)

\*\* - U<sub>D</sub> for MB-104 Passive Aero door size 1500×2660 mm

\*\*\* - for the reference window with additional striker plates