



## Window and door system **MB-79N**

The MB-79N is the latest cutting-edge, budget-friendly window and door system in the ALUPROF range. Introduced with a view to meeting heightened thermal insulation requirements, it is employed for a broad range of structures, including fixed, turn, tilt, tilt and turn, and tilt-and-slide windows, single and double exterior doors and shop windowtype solutions with doors. Besides the economical version, the MB-79N E, which features a one-component central seal, and the MB-79N ST version, with a two-component central seal, we also offer the MB-79N SI variant with top-end thermal insulation and profiles that come equipped with insulating inserts and a two-component central seal. For external doors, the MB-79N SI+ variant, which comes with a central seal and insulating inserts inside the profiles, is available. In addition, the product range includes the MB-79N Casement system for outward-opening windows with a thermal break and the MB-79N US window system, which features a concealed vent.



**$U_w$  from 0.64 W/(m<sup>2</sup>K)**

## WINDOWS



MB-79N ST



MB-79N SI



MB-79N US SI

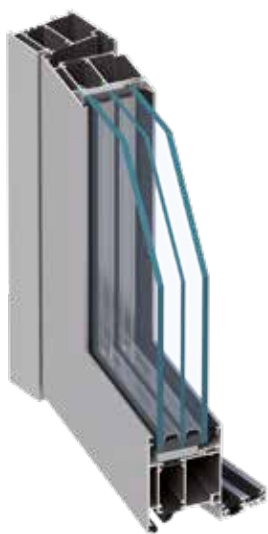


MB-79N CASEMENT SI

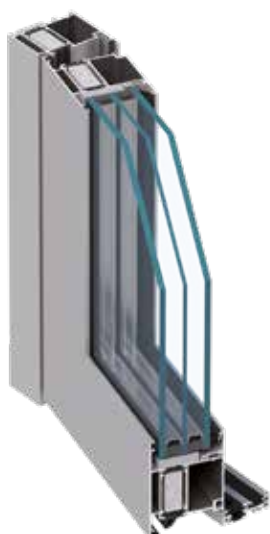
Examples of heat transfer coefficients  $U_w$

WINDOWS SCHEMES	SECTION A OR B	Value $U_w$ [W/m <sup>2</sup> K]			
		Glass with Multitech frame			
		Double chamber		Single chamber	
		$U_g=0.5$	$U_g=0.7$	$U_g=1.0$	
	MB-79N E	 K520012X	0.82	0.98	1.25
		 K520012X + K520102X	0.98	1.12	1.37
	MB-79N ST	 K520012X	0.82	0.98	1.25
		 K520012X + K520102X	0.95	1.09	1.30
	MB-79N SI	 K520012X	0.70	0.86	1.13
		 K520012X + K520102X	0.79	0.93	1.18

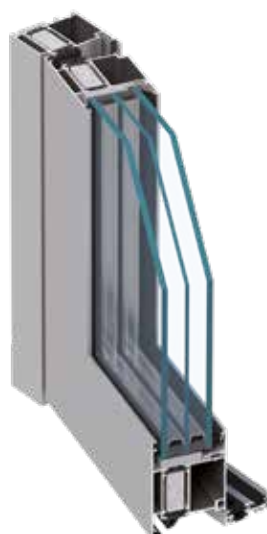
**DOORS**



MB-79N ST



MB-79N SI



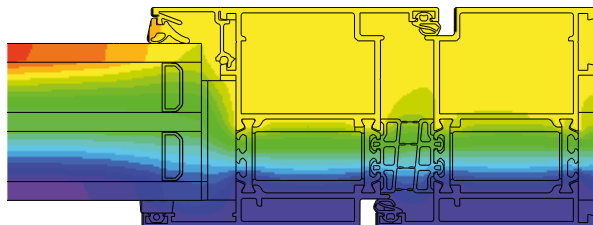
MB-79N SI+



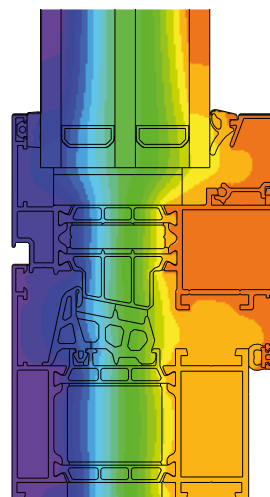
MB-79N SI, SI+

Examples of heat transfer coefficients  $U_D$

DOORS SCHEMES	SECTION A OR B	Value $U_D$ [W/m <sup>2</sup> K]		
		Glass with Multitech frame		
		Double chamber		Single chamber
		$U_g=0.5$	$U_g=0.7$	$U_g=1.0$
	MB-79N E (ST)  K520131X+K520146X+8G00031X	1.16	1.29	1.51
	MB-79N SI  K520131X+K520146X+8G00031X	1.06	1.20	1.44
	MB-79N SI+  K520131X+K520146X+8G00031X	1.01	1.14	1.35



Distribution of isotherms in MB-79N SI+ door



Distribution of isotherms in MB-79N SI window

## FEATURES AND AESTHETICS

- profile depth: 79 mm for the vent and 70 mm for the window frame and door leaf
- the windows and doors feature thermal breaks made of an innovative material with a brand-new shape, allowing the use of a seal in the profile insulation
- three thermal variants for the window structures, the MB-79N E, MB-79N ST and MB-79N SI. Three variants for the door structures, the MB-79N ST, MB-79N SI and MB-79N SI+
- the structure meets the Technical Requirements which came into force in 2021, at 0.9 W/(m<sup>2</sup>K) for the windows and 1.3 W/(m<sup>2</sup>K) for the doors
- thermal insulation: U<sub>w</sub> from 0.64 W/(m<sup>2</sup>K)
- excellent kinematics, making it possible to build narrow, operable windows
- door leaf profiles have an isolation joint, which eliminates thermal stresses during operation
- invisible hinges and the most popular multi-point hardware can be used, including concealed fittings, together with state-of-the-art AluPilot fittings. For doors, hardware with automation and access control functions is also available
- suitable for a wide range of double or triple glazing of up to 63 mm for windows and 54 mm for doors, making it possible to use every commonly available type of glass, including acoustic and burglary-resistant glass
- class RC1 to RC3 burglary-resistant doors can be produced using the system, as can panelled front doors, providing a wealth of aesthetic potential
- a large selection of handles in a range of styles is available, including a minimalist look, with a rosette or without
- the MB-79N Casement variant, with outward-opening windows and a thermal break, is also available

TECHNICAL SPECIFICATION	MB-79N WINDOWS	MB-79N DOORS	MB-79N CASEMENT
Frame depth	70 mm	70 mm	70 mm
Casement depth	79 mm	70 mm	79 mm
Glazing thickness	frame: 1.5 – 54 mm, vent: 10.5 – 63 mm	vent: 1.5 – 54 mm	frame: 1.5 – 54 mm, vent: 10.5 – 63 mm
Max. casement size (H×L)	H to 2700 mm, L to 1350 mm / H to 2150 mm, L to 1700 mm	H to 2800 mm, L to 1400 mm	H to 2700 mm, L to 1400 mm / H to 2500 mm, L to 2400 mm

PERFORMANCE	MB-79N WINDOWS	MB-79N DOORS	MB-79N CASEMENT
Air permeability	class 4, EN 12207	class 4, EN 12207	class 4, EN 12207
Water tightness	class E 1950, EN 12208	class E 900, EN 12208	class E 1800, EN 12208
Thermal insulation	U <sub>w</sub> from 0.64 W/(m <sup>2</sup> K)* U <sub>w</sub> from 0.72 W/(m <sup>2</sup> K)**	U <sub>D</sub> from 0.90 W/(m <sup>2</sup> K)***	U <sub>w</sub> from 0.74 W/(m <sup>2</sup> K)****
Windload resistance	class C5, EN 12210	class C5/B5, EN 12210	class C5/B5, EN 12210

\* - U<sub>w</sub> for MB-79N SI-based fixed window casement size 1700×2700 mm, with glazing U<sub>g</sub>=0.5 W/(m<sup>2</sup>K)

\*\* - U<sub>w</sub> for MB-79N SI-based operable window casement size 1700×2150 mm, with glazing U<sub>g</sub>=0.5 W/(m<sup>2</sup>K)

\*\*\* - U<sub>D</sub> for MB-79N SI+ door size 1400×2800 mm, with glazing U<sub>g</sub>=0.5 W/(m<sup>2</sup>K)

\*\*\*\* - U<sub>w</sub> for MB-79N Casement SI-based operable window casement size 1900×2500 mm, with glazing U<sub>g</sub>=0.5 W/(m<sup>2</sup>K)