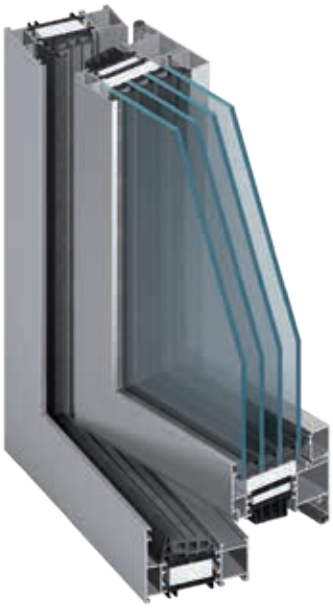
LET'S BUILD A BETTER FUTURE

Window & door system
MB-86



The new MB-86 window and door series have been designed to offer outstanding insulation properties. It meets the increasing requirements from the legislative and general market demands for the enhanced energy saving construction of new windows and doors. Offered in three varieties ST, SI and AERO it is the first aluminum system to employ silica aerogel. The nanoporous material has a very high proportion of free void volume compared to conventional solid materials. Its high pore volume, low solid content, and torturous path amorphous structure give rise to low values of thermal conductivity. Therefore the system features the industry leading thermal performance. In addition it also features exceptional rate of profiles inertia that allows for greater construction in size and weight. Version with concealed sash (MB-86US) is also available.

U_f from 0.57 W/(m²K)

innovative nanotechnology

WINDOWS MB-86

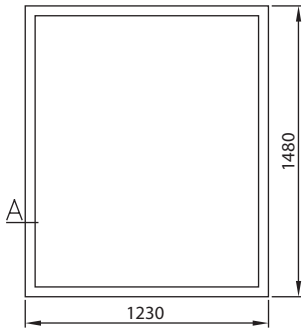
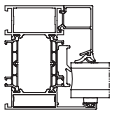
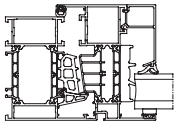
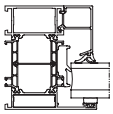
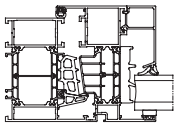
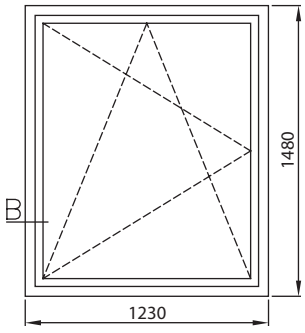
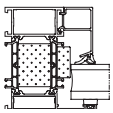
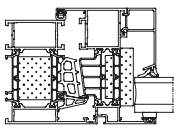
MB-86 SI

MB-86 Aero

MB-86US Aero

window MB-86 Casement

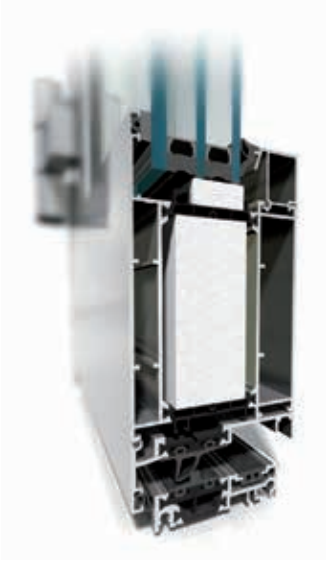
Examples of heat transfer coefficients U_w

WINDOWS SCHEMES	SECTION A OR B		Value U_w W/(m²K) for construction with double chamber glass and warm spacer	
			U_g=0.5	U_g=0.7
	MB-86 ST	 K518612X	0.77	0.94
		 K518612X + K518702X	0.90	1.04
	MB-86 SI	 K718612X	0.74	0.91
		 K718612X + K718702X	0.85	0.99
	MB-86 AERO	 K818612X	0.72	0.88
		 K818612X + K818702X	0.80	0.93

DOORS MB-86

MB-86 ST

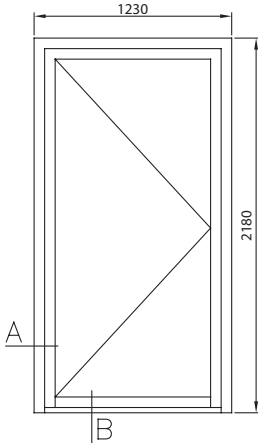
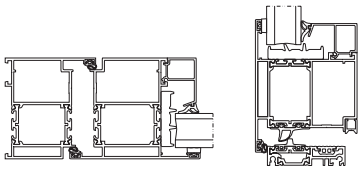
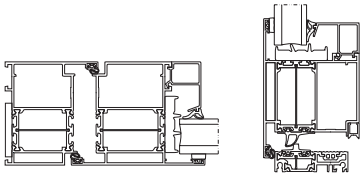
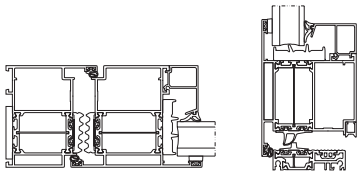
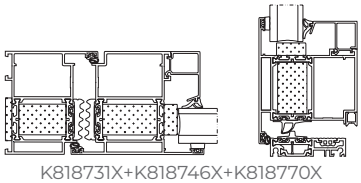
MB-86 SI

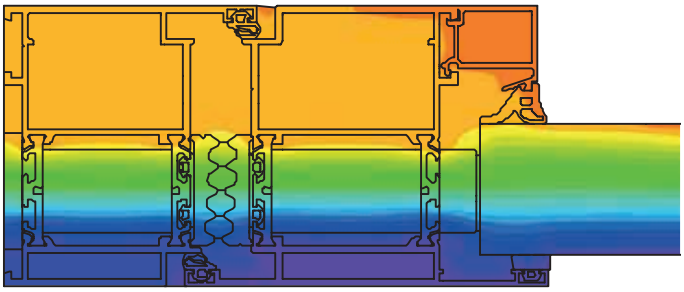


MB-86 Aero

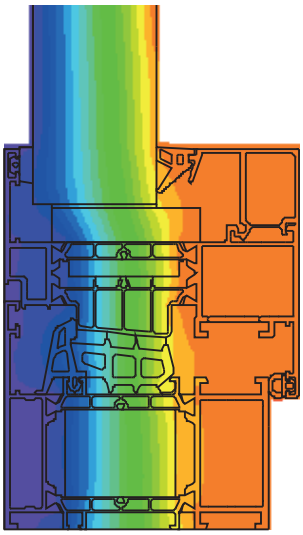
MB-86, RC3

Examples of heat transfer coefficients U_D

DOORS SCHEMES	SECTION A OR B		Value U_D W/(m²K) for construction with double chamber glass and warm spacer	
			U_g=0.5	U_g=0.7
	MB-86 ST	 K518731X+K518746X+K518770X	1.19	1.32
	MB-86 SI	 K718731X+K718746X+K718770X	1.07	1.20
	MB-86 SI+	 K718731X+K718746X+K718770X	0.98	1.11
	MB-86 AERO	 K818731X+K818746X+K818770X	0.88	1.02



Distribution of isotherms in **MB-86 AERO** door



Distribution of isotherms in **MB-86 AERO** window

FEATURES AND AESTHETICS

- wide range of profiles guarantees the desired aesthetics and resistance
- with its new shape, wide thermal breaks allow the use of an additional barrier in the profiles' insulation zone
- two-component, central gasket seals perfectly and thermally insulates the space between the casement and the frame
- glazing strips with additional sealing, comes in three versions: Standard, Prestige and Style
- profiles' shapes are well adapted to numerous multi-point locking systems, including concealed hinges
- a wide range of glazing allows the use of all common types of windows triple glazing units, acoustic or security panes
- profiles' drainage functionality is available in two versions: traditional and concealed
- anti-burglary windows and doors up to RC3 class

TECHNICAL SPECIFICATION	MB-86 WINDOWS	MB-86 DOORS	MB-86US	MB-86 Casement
Frame depth	77 mm			
Casement depth	86 mm	77 mm	80,8 mm	77 mm
Glazing thickness	frame: 13.5 – 61.5 mm, vent: 21 – 70.5 mm	13.5 – 61.5 mm	frame: 7 – 52 mm, vent: 15 – 60 mm	frame: 13 – 61 mm, vent: 22 – 70 mm
Max. casement size (H×L)	H to 2800 mm, L to 1700 mm	H to 3000 mm, L to 1400 mm	H to 2500 mm, L to 1600 mm	window: H to 2500 mm L to 2400 mm / door: H to 2800 mm L to 1400 mm

PERFORMANCE	MB-86 WINDOWS	MB-86 DOORS	MB-86US	MB-86 Casement
Air permeability	class 4, EN 12207	class 4, EN 12207	class 4, EN 12207	class 4, EN 12207
Water tightness	class E 1500, EN 12208	class E 1350 Pa, EN 12208	class E 1350, EN 12208	E1950 Pa, EN 12208
Thermal insulation	MB-86 ST U_f from 1.39 W/(m²K) MB-86 SI U_f from 0.92 W/(m²K) MB-86 AERO U_f from 0.57 W/(m²K) MB-86 AERO U_w from 0.72 W/(m²K)*	MB-86 ST U_f from 2.16 W/(m²K) MB-86 SI U_f from 1.76 W/(m²K) MB-86 SI+ U_f from 1.49 W/(m²K) MB-86 AERO U_f from 1.22 W/(m²K)	MB-86US ST U_f from 1.03 W/(m²K) MB-86US SI U_f from 1.01 W/(m²K) U_f MB-86US AERO from 0.86 W/(m²K)	—
Windload resistance	class C5, EN 12210	class C1/B2, EN 12210	class C5, EN 12210	class C5, EN 12210
Impact resistance	—	class 3 / class 3	—	class 3 / class 3

* - U_w for openable window MB-86 Aero 1700×2100 mm, glazing U_g=0.5 W/(m²K) with spacer Chromatech Ultra