

# CS 104

Solution for passive construction

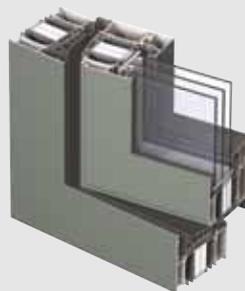


With the CS 104 window and door system, Reynaers achieves unparalleled insulation values for aluminium profiles in the building industry, introducing a solution for passive buildings.

The high insulation levels, down to an  $U_f$ -value of  $0.88 \text{ W/m}^2\text{K}$ , are achieved by the use of a patented insulation technology which contains a special foam, firmly fixed in the chamber of the insulation strip so that no extra manipulation is required when handling, processing and composing the window and door. A new set of specifically developed gaskets also assures the high level of the wind and water tightness of the system. After insulation, air tightness is the most important factor determining the energy efficiency of a window or door.

In addition to the high insulation values, CS 104 offers extremely high performance when it comes to water tightness. With values up to 900 Pa for windows and 300 Pa for doors, the system is suitable for extreme conditions such as coastal areas, and can be applied at extreme heights.

The increased built-in depth of the profiles (the vent is 104mm deep) contributes furthermore to their strength and stability. This gives architects and builders the design benefits of large, expansive surfaces of triple glazing resulting in innovative, energy-efficient and yet sustainable solutions.



## CS 104

	WINDOWS	DOORS
		



## TECHNICAL CHARACTERISTICS

		WINDOWS	DOORS
Min. visible width inward opening	Frame	69mm	82mm
	Vent	48mm	71mm
Min. visible width outward opening	Frame	-	46mm
	Vent	-	107mm
Min. visible width T-profile		99mm	99mm
Overall system depth	Frame	95mm	95mm
	Vent	104mm	95mm
Rebate height		25mm-30mm	25mm
Glass thickness		65mm	65mm
Glazing method		Dry glazing with EPDM or neutral silicone	
Thermal insulation		59mm fibreglass reinforced polyamide strips (strips with insulating foam integrated in the strip chambers)	50mm fibreglass reinforced polyamide strips (strips with insulating foam applied in the strip chambers)

## PERFORMANCES

ENERGY			
	Thermal insulation (1)	Uf-value down to 0.88 W/m <sup>2</sup> depending on the frame/vent combination and the glass thickness	
COMFORT		WINDOWS	DOORS
	Air tightness, max. test pressure (2) EN 1026; EN 12207	4 (600 Pa)	3 (600 Pa)
	Water tightness (3) EN 1027; EN 12208	E900 (900 Pa)	7A (300 Pa)
	Wind load resistance, max. test pressure (4) EN 12211; EN 12210	5	2
	Wind load resistance to frame deflection (5) EN 12211; EN 12210	C	C

- (1) The Uf-value measures the heat flow. The lower the Uf-value, the better the thermal insulation of the frame.
- (2) The air tightness test measures the volume of air that would pass through a closed window at a certain air pressure.
- (3) The water tightness testing involves applying a uniform water spray at increasing air pressure until water penetrates the window.
- (4) The wind load resistance is a measure of the profile's structural strength and is tested by applying increasing levels of air pressure to simulate the wind force. There are up to five levels of wind resistance (1 to 5) and three deflection classes (A,B,C). The higher the number, the better the performance.
- (5) The wind load resistance to frame deflection is a measure of the profile's structural strength and is tested by applying increasing levels of air pressure to simulate the wind force. There are up to five levels of wind resistance (1 to 5) and three deflection classes (A,B,C). The higher the number, the better the performance.

