

Altitude Aluminium offer a wide range of Aluminium products for todays Grand Design Projects including:

Aluminium Windows • Sliding Doors • Folding/Bifolding Doors • Curtain Walling

Balconies • Balustrades • Structural Glazing • Rooflights

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CS 77, CS77-HI, CS77-HI+

CS77 is a thermally-broken, multi-chambered system for windows and doors that offers excellent levels of security, weather resistance and thermal insulation.

The CS77 system offers a comprehensive range of inward- and outward-opening window and door designs that are available in a range of three different styles, making it ideal for both traditional and contemporary building designs. Combined with a huge choice of colours and finishes, and the ability to specify a different colour inside and out, the CS77 is a truly versatile system that can be specified to complement almost any home.

The fibreglass-reinforced polyamide strips and weather gaskets are designed with ribs and hollow chambers to achieve superior thermal insulation levels. A variant of the CS77 has been awarded the coveted Swiss Minergie accreditation.























Style options

The CS77 window and door system is available in three different style options. Whether you prefer the more traditional Renaissance style or the very clean and contemporary lines of the hidden vent style, the CS77 has the aesthetics to complement almost any home.







Renaissance



Hidden Vent

Performance

The CS77 not only looks stylish but is also a great all-round performer in terms of thermal insulation, weather resistance and security:

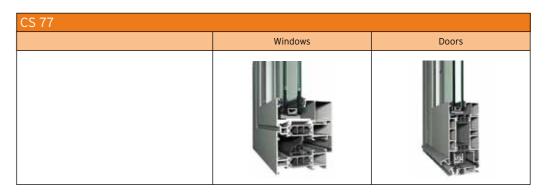
- Whole window U-values as low as 0.94 W/m²K
- Up to 600Pa air tightness
- Up to 900Pa water tightness
- Up to 2000Pa wind load resistance
- ${}^{\bullet}$ WK2 and even WK3 security with UK Secured By Design Security, PAS 24:2012 or BS7950 dependent on window type











Technical Characteristics											
Style variants		FUNCTIONAL	RENAISSANCE	HIDDEN VENT							
Min. visible width	Frame	51 mm	51 mm	76 mm							
inward opening window Vent		33 mm	33 mm	not visible							
Min. visible width	Frame	17.5 mm	-	-							
outward opening window	Vent	76 mm	-	-							
Min. visible width	Frame	68 mm	-	-							
inward opening flush door	Vent	76 mm	-	-							
Min. visible width	Frame	42 mm	-	-							
outward opening flush door	Vent	102 mm	-	-							
Min. visible width T-profile		76 mm	76 mm	126 mm							
Overall system depth window	Frame	68 mm	77 mm	68 mm							
Overall system depth window	Vent	77 mm	86 mm	72.5 mm							
Rebate height		25 mm	25 mm	18.5 mm							
Glass thickness		up to 53 mm	up to 53 mm	up to 48 mm							
Glazing method		dry glazing with EPDM or neutral silicones									
Thermal insulation		32 mm omega and/or hollow chamber-shaped fibreglass reinforced polyamide strips									
High Insulation variant (HI)		Available	Available	Available							
High Insulation Plus variant (HI+)		Available	Not Available	Not Available							

Performances													
	Energy												
	Thermal Insulation ⁽¹⁾ EN ISO 10077-2	Uf-value down to 1.6 W/m²K depending on the frame/vent combination and the glass thickness.											
	Comfort												
	Acoustic performance ⁽²⁾ EN ISO 140-3; EN ISO 717-1	Rw (C; Ctr) = 36 (-1; -4) dB / 42 (-2; -4) dB, depending on glazing type											
	Air tightness, max. test pressure ⁽³⁾ EN 1026; EN 12207	1 (150 Pa)				2 (300 Pa)		3 (600 Pa))		4 (600 Pa)	
	Water tightness ⁽⁴⁾ EN 1027; EN 12208	1A (0 Pa)	2A (50 Pa)	3.		4A 50 Pa)	5A (200 Pa)	6A (250 Pa)	7A (300 Pa)	8A (450 Pa	9A (600	E900 (900 Pa)	
	Wind load resistance, max. test pressure ⁽⁵⁾ EN 12211; EN 12210	1 (400 Pa)		2 (800 Pa)		(12	3 (1200 Pa)		Pa)	5 (2000 Pa)		Exxx (>2000 Pa)	
	Wind load resistance to frame deflection ⁽⁵⁾ EN 12211; EN 12210		A (<1/150)				B (1/200)			C (1/300)			
	Safety												
%	Burglar resistance ⁽⁶⁾ ENV 1627 - ENV 1630, UK SBD PASS	WK					WK			WK 3			

This table shows possible classes and values of performances. The values indicated in red are the ones relevant to this system.

- (1) The Uf-value measures the heat flow. The lower the Uf-value, the better the thermal insulation of the frame.

- The sound reduction index (Rw) measures the capacity of the sound reduction performance of the frame.
 The air tightness test measures the volume of air that would pass through a closed window at a certain air pressure.
 The water tightness test involves applying a uniform water spray at increasing air pressure until water penetrates the window.
 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. the better the performance.
- Note: The weather performance data above is for windows and not for doors (contact Reynaers for further information).
- (6) The burglar resistance is tested by statistical and dynamic loads, as well as by simulated attempts to break in using specified tools.
 (7) Please refer to Reynaers CE passport for all technical data including size limitations.