



Window and door system **VWD79**

The VWD79 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 VWD79 E, which features a one-component central seal, and the VWD79 ST version, with a two-component central seal, we also offer the VWD79 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 VWD79 SI+ variant, which comes with a central seal and insulating inserts inside the profiles, is available. In addition, the product range includes the VWD79 Casement system for outward-opening windows with a thermal break and the VWD79 US window system, which features a concealed vent.



U_w from 0.64 W/(m²K)

WINDOWS



VWD79 ST



VWD79 SI



VWD79 US SI



VWD79 CASEMENT SI

Examples of heat transfer coefficients U_w

WINDOWS SCHEMES	SECTION A OR B	Value U_w [W/m ² K]			
		Glass with Multitech frame			
		Double chamber		Single chamber	
		$U_g=0.5$	$U_g=0.7$	$U_g=1.0$	
	VWD79 E	 K520012X	0.82	0.98	1.25
		 K520012X + K520102X	0.98	1.12	1.37
	VWD79 ST	 K520012X	0.82	0.98	1.25
		 K520012X + K520102X	0.95	1.09	1.30
	VWD79 SI	 K520012X	0.70	0.86	1.13
		 K520012X + K520102X	0.79	0.93	1.18

DOORS



VWD79 ST



VWD79 SI



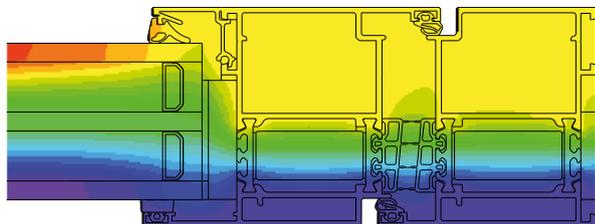
VWD79 SI+



VWD79 SI,SI+

Examples of heat transfer coefficients U_D

DOORS SCHEMES	SECTION A OR B	Value U_D [W/m ² K]		
		Glass with Multitech frame		
		Double chamber		Single chamber
		$U_g=0.5$	$U_g=0.7$	$U_g=1.0$
	VWD79 E (ST) K520131X+K520146X+8G00031X	1.16	1.29	1.51
	VWD79 SI K520131X+K520146X+8G00031X	1.06	1.20	1.44
	VWD79 SI+ K520131X+K520146X+8G00031X	1.01	1.14	1.35



Distribution of isotherms in **VWD79 SI+** door



Distribution of isotherms in **VWD79 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 VWD79 E, VWD79 ST and VWD79 SI. Three variants for the door structures, the VWD79 ST, VWD79 SI and VWD79 SI+
- the structure meets the Technical Requirements which came into force in 2021, at 0.9 W/(m²K) for the windows and 1.3 W/(m²K) for the doors
- thermal insulation: U_w from 0.64 W/(m²K)
- 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 VWD79 Casement variant, with outward-opening windows and a thermal break, is also available

TECHNICAL SPECIFICATION	VWD79 WINDOWS	VWD79 DOORS	VWD79 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	VWD79 WINDOWS	VWD79 DOORS	VWD79 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 _w from 0.64 W/(m ² K)* U _w from 0.72 W/(m ² K)**	U _D from 0.90 W/(m ² K)***	U _w from 0.74 W/(m ² K)****
Windload resistance	class C5, EN 12210	class C5/B5, EN 12210	class C5/B5, EN 12210

* - U_w for VWD79 SI-based fixed window casement size 1700×2700 mm, with glazing U_g=0.5 W/(m²K)

** - U_w for VWD79 SI-based openable window casement size 1700×2150 mm, with glazing U_g=0.5 W/(m²K)

*** - U_D for VWD79 SI+ door size 1400×2800 mm, with glazing U_g=0.5 W/(m²K)

**** - U_w for VWD79 Casement SI-based openable window casement size 1900×2500 mm, with glazing U_g=0.5 W/(m²K)

