



Phius Product Number: W-101850
Date Last Certified: 01/02/2024
THERM Files Available: No

Phius Certification Path: Orange Path
Valid Through: 01/02/2026
Air Leakage Test Data Available: No



PRODUCT INFORMATION	
Product Name: Alpen ZR-9 Casement	
Manufacturer: Alpen High Performance Products	Primary Frame Material: Fiberglass
Series: Zenith	Fixed or Operable: Operable
Model: ZR-9 Casement	Operation Type: Casement

IGU DETAILS		
Glazing Name: 925-9L		
Glass Layers: Quad	Gas Fill: Argon	Spacer: Allmetal 250P SST

RECOMMENDED CLIMATE ZONES <i>(NOTE: This information is not for use in building energy models. See next section.)</i>										
Recommended Climate Zones and Whole-Window U-values by Zone, at Standard Model Size [Btu/hr·ft ² ·°F]										
Climate Zone	0, 1, 2	3A	3B	3C	4A, 4B	4C, 5C	5A, 5B	6	7	8
Recommended Zones	✓	✓	✓	✓	✓	✓	✓			
U-Whole-Window	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Modeled Size [W×H]	23.62" × 59.06"		SHGC, Whole Window: 0.23				Condensation Resistance:			

COMPONENT-LEVEL PERFORMANCE DATA [IP Units] | Compatible with building energy modeling tools

U-COG Center of Glass U-Values, by Climate Zone [Btu/hr·ft ² ·°F]										
Climate Zone	0, 1, 2	3A	3B	3C	4A, 4B	4C, 5C	5A, 5B	6	7	8
U-COG Value	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.33		

Frame Parameters	Left Jamb	Right Jamb	Head	Sill
Frame Section	Left	Right	Top	Bottom
Frame Width	2.87"	2.87"	2.87"	2.87"
Frame U-Value [Btu/hr·ft²·°F]	0.19	0.19	0.19	0.19
Glazing-to-Frame Psi Value [Btu/hr·ft²·°F]	0.0314	0.0314	0.0313	0.0313

Frame-to-Wall Psi Value is dependent on the on-site installation condition. *(See Phius Guidebook for more details.)*



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RECOMMENDED CLIMATE ZONES <i>(NOTE: This information is not for use in building energy models. See next section.)</i>										
Recommended Climate Zones and Whole-Window U-values by Zone, at Standard Model Size [W/m ² K]										
Climate Zone	0, 1, 2	3A	3B	3C	4A, 4B	4C, 5C	5A, 5B	6	7	8
Recommended Zones	✓	✓	✓	✓	✓	✓	✓			
U-Whole-Window	0.87	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.85	0.85
Modeled Size [W × H]	0.60 m × 1.50 m			SHGC, Whole Window: 0.23			Condensation Resistance:			

COMPONENT-LEVEL PERFORMANCE DATA [SI Units] | Compatible with building energy modeling tools

U-COG Center of Glass U-Values, by Climate Zone [W/m ² K]										
Climate Zone	0, 1, 2	3A	3B	3C	4A, 4B	4C, 5C	5A, 5B	6	7	8
U-COG Value	0.45	0.44	0.44	0.44	0.44	0.44	0.43	0.43	0.43	0.43
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.33		

Frame Parameters	Left Jamb	Right Jamb	Head	Sill
Frame Section	Left	Right	Top	Bottom
Frame Width	73 mm	73 mm	73 mm	73 mm
Frame U-Value [W/m²K]	1.08	1.08	1.09	1.09
Glazing-to-Frame Psi Value [W/mK]	0.0544	0.0544	0.0542	0.0542

Frame-to-Wall Psi Value is dependent on the on-site installation condition. *(See Phius Guidebook for more details.)*