



Phius Product Number: W-102643
Date Last Certified: 04/01/26
THERM Files Available: No

Phius Certification Path: Orange Path
Valid Through: 04/01/28
Air Leakage Test Data Available: No



PRODUCT INFORMATION

Product Name: Alpen Zenith ZR-6 Casement & Awning	
Manufacturer: Alpen High Performance Products	Primary Frame Material: Fiberglass
Series: Zenith ZR-6	Fixed or Operable: Operable
Model: Zenith ZR-6 Casement & Awning	Operation Type: Casement

IGU DETAILS

Glazing Name: HighGain-6 TGT [35mm oa]		
Glass Layers: Triple	Gas Fill: Argon	Spacer: Ködispace 4SG

RECOMMENDED CLIMATE ZONES (NOTE: This information is not for use in building energy models. See next section.)

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	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Modeled Size [W×H]	23.62" × 59.06"			SHGC, Whole Window: 0.40			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	0.13	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.59		

Frame Parameters	Left Jamb	Right Jamb	Head	Sill
Frame Section	Left	Right	Top	Bottom
Frame Width	2.91"	2.91"	2.91"	2.91"
Frame U-Value [Btu/hr·ft ² ·°F]	0.19	0.19	0.19	0.19
Glazing-to-Frame Psi Value [Btu/hr·ft·°F]	0.0175	0.0175	0.0173	0.0173

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



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PRODUCT INFORMATION

Product Name: Alpen Zenith ZR-6 Casement & Awning	
Manufacturer: Alpen High Performance Products	Primary Frame Material: Fiberglass
Series: Zenith ZR-6	Fixed or Operable: Operable
Model: Zenith ZR-6 Casement & Awning	Operation Type: Casement

IGU DETAILS

Glazing Name: HighGain-6 TGT [35mm oa]		
Glass Layers: Triple	Gas Fill: Argon	Spacer: Ködispace 4SG

RECOMMENDED CLIMATE ZONES *(NOTE: This information is not for use in building energy models. See next section.)*

Recommended Climate Zones and Whole-Window U-values by Zone, at Standard Model Size [W/m²K]										
Climate Zone	0, 1, 2	3A	3B	3C	4A, 4B	4C, 5C	5A, 5B	6	7	8
Recommended Zones					✓	✓				
U-Whole-Window	0.96	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94	0.95
Modeled Size [W × H]	0.60 m × 1.50 m			SHGC, Whole Window: 0.40			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/m²K]										
Climate Zone	0, 1, 2	3A	3B	3C	4A, 4B	4C, 5C	5A, 5B	6	7	8
U-COG Value	0.72	0.70	0.70	0.70	0.69	0.70	0.69	0.69	0.68	0.70
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.59		

Frame Parameters	Left Jamb	Right Jamb	Head	Sill
Frame Section	Left	Right	Top	Bottom
Frame Width	74 mm	74 mm	74 mm	74 mm
Frame U-Value [W/m ² K]	1.10	1.10	1.11	1.11
Glazing-to-Frame Psi Value [W/mK]	0.0303	0.0303	0.0301	0.0301

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



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Air Leakage Test Data Available: No



PRODUCT INFORMATION

Product Name: Alpen Zenith ZR-6 Casement & Awning	
Manufacturer: Alpen High Performance Products	Primary Frame Material: Fiberglass
Series: Zenith ZR-6	Fixed or Operable: Operable
Model: Zenith ZR-6 Casement & Awning	Operation Type: Casement

IGU DETAILS

Glazing Name: SolarControl-6 TGT + Krypton [35mm oa]		
Glass Layers: Triple	Gas Fill: Krypton	Spacer: Ködispace 4SG

RECOMMENDED CLIMATE ZONES *(NOTE: This information is not for use in building energy models. See next section.)*

Recommended Climate Zones and Whole-Window U-values by Zone, at Standard Model Size [Btu/hr·ft²·°F]										
Climate Zone	0, 1, 2	3A	3B	3C	4A, 4B	4C, 5C	5A, 5B	6	7	8
Recommended Zones	✓	✓	✓	✓	✓	✓	✓			
U-Whole-Window	0.14	0.14	0.14	0.14	0.15	0.14	0.15	0.15	0.16	0.16
Modeled Size [W×H]	23.62" × 59.06"		SHGC, Whole Window: 0.19				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·ft²·°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	0.09	0.09	0.10	0.10	0.11	0.11
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.27		

Frame Parameters	Left Jamb	Right Jamb	Head	Sill
Frame Section	Left	Right	Top	Bottom
Frame Width	2.91"	2.91"	2.91"	2.91"
Frame U-Value [Btu/hr·ft ² ·°F]	0.19	0.19	0.19	0.19
Glazing-to-Frame Psi Value [Btu/hr·ft·°F]	0.0178	0.0178	0.0177	0.0177
Frame-to-Wall Psi Value is dependent on the on-site installation condition. <i>(See Phius Guidebook for more details.)</i>				



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PRODUCT INFORMATION

Product Name: Alpen Zenith ZR-6 Casement & Awning	
Manufacturer: Alpen High Performance Products	Primary Frame Material: Fiberglass
Series: Zenith ZR-6	Fixed or Operable: Operable
Model: Zenith ZR-6 Casement & Awning	Operation Type: Casement

IGU DETAILS

Glazing Name: SolarControl-6 TGT + Krypton [35mm oa]		
Glass Layers: Triple	Gas Fill: Krypton	Spacer: Ködispace 4SG

RECOMMENDED CLIMATE ZONES *(NOTE: This information is not for use in building energy models. See next section.)*

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	0.79	0.80	0.80	0.79	0.83	0.81	0.85	0.86	0.90	0.92
Modeled Size [W × H]	0.60 m × 1.50 m		SHGC, Whole Window: 0.19				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	0.46	0.47	0.47	0.45	0.52	0.49	0.55	0.56	0.61	0.65
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.27		

Frame Parameters	Left Jamb	Right Jamb	Head	Sill
Frame Section	Left	Right	Top	Bottom
Frame Width	74 mm	74 mm	74 mm	74 mm
Frame U-Value [W/m ² K]	1.10	1.10	1.11	1.11
Glazing-to-Frame Psi Value [W/mK]	0.0309	0.0309	0.0308	0.0308
Frame-to-Wall Psi Value is dependent on the on-site installation condition. <i>(See Phius Guidebook for more details.)</i>				



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PRODUCT INFORMATION

Product Name: Alpen Zenith ZR-6 Casement & Awning	
Manufacturer: Alpen High Performance Products	Primary Frame Material: Fiberglass
Series: Zenith ZR-6	Fixed or Operable: Operable
Model: Zenith ZR-6 Casement & Awning	Operation Type: Casement

IGU DETAILS

Glazing Name: SolarControl-6 TGT [35mm oa]		
Glass Layers: Triple	Gas Fill: Argon	Spacer: Ködispace 4SG

RECOMMENDED CLIMATE ZONES (NOTE: This information is not for use in building energy models. See next section.)

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	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16
Modeled Size [W×H]	23.62" × 59.06"		SHGC, Whole Window: 0.19				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·ft²·°F]

Climate Zone	0, 1, 2	3A	3B	3C	4A, 4B	4C, 5C	5A, 5B	6	7	8
U-COG Value	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.12

SHGC-COG | Center of Glass Solar Heat Gain Coefficient, All Climate Zones 0.28

Frame Parameters	Left Jamb	Right Jamb	Head	Sill
	Left	Right	Top	Bottom
Frame Width	2.91"	2.91"	2.91"	2.91"
Frame U-Value [Btu/hr·ft ² ·°F]	0.19	0.19	0.19	0.19
Glazing-to-Frame Psi Value [Btu/hr·ft·°F]	0.0177	0.0177	0.0176	0.0176

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



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PRODUCT INFORMATION

Product Name: Alpen Zenith ZR-6 Casement & Awning

Manufacturer: Alpen High Performance Products

Primary Frame Material: Fiberglass

Series: Zenith ZR-6

Fixed or Operable: Operable

Model: Zenith ZR-6 Casement & Awning

Operation Type: Casement

IGU DETAILS

Glazing Name: SolarControl-6 TGT [35mm oa]

Glass Layers: Triple

Gas Fill: Argon

Spacer: Ködispace 4SG

RECOMMENDED CLIMATE ZONES *(NOTE: This information is not for use in building energy models. See next section.)*

Recommended Climate Zones and Whole-Window U-values by Zone, at Standard Model Size [W/m²K]

Climate Zone	0, 1, 2	3A	3B	3C	4A, 4B	4C, 5C	5A, 5B	6	7	8
Recommended Zones	✓	✓	✓	✓	✓	✓	✓			
U-Whole-Window	0.92	0.91	0.91	0.92	0.91	0.91	0.91	0.91	0.91	0.92
Modeled Size [W × H]	0.60 m × 1.50 m		SHGC, Whole Window: 0.19				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/m²K]

Climate Zone	0, 1, 2	3A	3B	3C	4A, 4B	4C, 5C	5A, 5B	6	7	8
U-COG Value	0.66	0.64	0.64	0.65	0.64	0.64	0.63	0.63	0.64	0.66
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.28		

Frame Parameters	Left Jamb	Right Jamb	Head	Sill
Frame Section	Left	Right	Top	Bottom
Frame Width	74 mm	74 mm	74 mm	74 mm
Frame U-Value [W/m ² K]	1.10	1.10	1.11	1.11
Glazing-to-Frame Psi Value [W/mK]	0.0307	0.0307	0.0306	0.0306
Frame-to-Wall Psi Value is dependent on the on-site installation condition. <i>(See Phius Guidebook for more details.)</i>				



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PRODUCT INFORMATION

Product Name: Alpen Zenith ZR-6 Casement & Awning	
Manufacturer: Alpen High Performance Products	Primary Frame Material: Fiberglass
Series: Zenith ZR-6	Fixed or Operable: Operable
Model: Zenith ZR-6 Casement & Awning	Operation Type: Casement

IGU DETAILS

Glazing Name: Balanced-6 TGT [35mm oa]		
Glass Layers: Triple	Gas Fill: Argon	Spacer: Ködispace 4SG

RECOMMENDED CLIMATE ZONES *(NOTE: This information is not for use in building energy models. See next section.)*

Recommended Climate Zones and Whole-Window U-values by Zone, at Standard Model Size [Btu/hr·ft²·°F]

Climate Zone	0, 1, 2	3A	3B	3C	4A, 4B	4C, 5C	5A, 5B	6	7	8
Recommended Zones				✓	✓	✓	✓			
U-Whole-Window	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16
Modeled Size [W×H]	23.62" × 59.06"			SHGC, Whole Window: 0.26			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·ft²·°F]

Climate Zone	0, 1, 2	3A	3B	3C	4A, 4B	4C, 5C	5A, 5B	6	7	8
U-COG Value	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.39		

Frame Parameters	Left Jamb	Right Jamb	Head	Sill
Frame Section	Left	Right	Top	Bottom
Frame Width	2.91"	2.91"	2.91"	2.91"
Frame U-Value [Btu/hr·ft²·°F]	0.19	0.19	0.19	0.19
Glazing-to-Frame Psi Value [Btu/hr·ft·°F]	0.0177	0.0177	0.0176	0.0176

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



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PRODUCT INFORMATION

Product Name: Alpen Zenith ZR-6 Casement & Awning	
Manufacturer: Alpen High Performance Products	Primary Frame Material: Fiberglass
Series: Zenith ZR-6	Fixed or Operable: Operable
Model: Zenith ZR-6 Casement & Awning	Operation Type: Casement

IGU DETAILS

Glazing Name: Balanced-6 TGT [35mm oa]		
Glass Layers: Triple	Gas Fill: Argon	Spacer: Ködispace 4SG

RECOMMENDED CLIMATE ZONES (NOTE: This information is not for use in building energy models. See next section.)

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	0.92	0.91	0.91	0.92	0.91	0.91	0.91	0.91	0.91	0.92
Modeled Size [W × H]	0.60 m × 1.50 m			SHGC, Whole Window: 0.26			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	0.66	0.64	0.64	0.65	0.64	0.64	0.64	0.63	0.63	0.65
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.39		

Frame Parameters	Left Jamb	Right Jamb	Head	Sill
Frame Section	Left	Right	Top	Bottom
Frame Width	74 mm	74 mm	74 mm	74 mm
Frame U-Value [W/m ² K]	1.10	1.10	1.11	1.11
Glazing-to-Frame Psi Value [W/mK]	0.0307	0.0307	0.0305	0.0305
Frame-to-Wall Psi Value is dependent on the on-site installation condition. (See Phius Guidebook for more details.)				



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PRODUCT INFORMATION

Product Name: Alpen Zenith ZR-6 Fixed High Profile	
Manufacturer: Alpen High Performance Products	Primary Frame Material: Fiberglass
Series: Zenith ZR-6	Fixed or Operable: Fixed
Model: Zenith ZR-6 Fixed High Profile	Operation Type: Fixed

IGU DETAILS

Glazing Name: Balanced-6 TGT [35mm oa]		
Glass Layers: Triple	Gas Fill: Argon	Spacer: Ködispace 4SG

RECOMMENDED CLIMATE ZONES *(NOTE: This information is not for use in building energy models. See next section.)*

Recommended Climate Zones and Whole-Window U-values by Zone, at Standard Model Size [Btu/hr·ft²·°F]										
Climate Zone	0, 1, 2	3A	3B	3C	4A, 4B	4C, 5C	5A, 5B	6	7	8
Recommended Zones					✓	✓	✓			
U-Whole-Window	0.14	0.14	0.14	0.14	0.13	0.14	0.13	0.13	0.13	0.14
Modeled Size [W×H]	47.24" × 59.06"			SHGC, Whole Window: 0.31			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·ft²·°F]										
Climate Zone	0, 1, 2	3A	3B	3C	4A, 4B	4C, 5C	5A, 5B	6	7	8
U-COG Value	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.39		

Frame Parameters	Left Jamb		Right Jamb		Head		Sill	
	Frame Section		Frame Section		Frame Section		Frame Section	
	Left		Right		Top		Bottom	
Frame Width	2.83"		2.83"		2.83"		2.83"	
Frame U-Value [Btu/hr·ft ² ·°F]	0.15		0.15		0.15		0.15	
Glazing-to-Frame Psi Value [Btu/hr·ft·°F]	0.0180		0.0180		0.0180		0.0180	

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



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PRODUCT INFORMATION

Product Name: Alpen Zenith ZR-6 Fixed High Profile	
Manufacturer: Alpen High Performance Products	Primary Frame Material: Fiberglass
Series: Zenith ZR-6	Fixed or Operable: Fixed
Model: Zenith ZR-6 Fixed High Profile	Operation Type: Fixed

IGU DETAILS

Glazing Name: Balanced-6 TGT [35mm oa]		
Glass Layers: Triple	Gas Fill: Argon	Spacer: Ködispace 4SG

RECOMMENDED CLIMATE ZONES (NOTE: This information is not for use in building energy models. See next section.)

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	0.78	0.77	0.77	0.77	0.77	0.77	0.76	0.76	0.76	0.78
Modeled Size [W × H]	1.20 m × 1.50 m			SHGC, Whole Window: 0.31			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	0.66	0.64	0.64	0.65	0.64	0.64	0.64	0.63	0.63	0.65
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.39		

Frame Parameters	Left Jamb	Right Jamb	Head	Sill
Frame Section	Left	Right	Top	Bottom
Frame Width	72 mm	72 mm	72 mm	72 mm
Frame U-Value [W/m ² K]	0.84	0.84	0.85	0.85
Glazing-to-Frame Psi Value [W/mK]	0.0313	0.0313	0.0312	0.0312

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



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PRODUCT INFORMATION

Product Name: Alpen Zenith ZR-6 Fixed High Profile	
Manufacturer: Alpen High Performance Products	Primary Frame Material: Fiberglass
Series: Zenith ZR-6	Fixed or Operable: Fixed
Model: Zenith ZR-6 Fixed High Profile	Operation Type: Fixed

IGU DETAILS

Glazing Name: HighGain-6 TGT [35mm oa]		
Glass Layers: Triple	Gas Fill: Argon	Spacer: Ködispace 4SG

RECOMMENDED CLIMATE ZONES (NOTE: This information is not for use in building energy models. See next section.)

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	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
Modeled Size [W×H]	47.24" × 59.06"		SHGC, Whole Window: 0.47				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	0.13	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.59		

Frame Parameters	Left Jamb		Right Jamb		Head		Sill	
	Left		Right		Top		Bottom	
Frame Width	2.83"		2.83"		2.83"		2.83"	
Frame U-Value [Btu/hr·ft ² ·°F]	0.15		0.15		0.15		0.15	
Glazing-to-Frame Psi Value [Btu/hr·ft ² ·°F]	0.0178		0.0178		0.0177		0.0177	

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



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Phius Certification Path: Orange Path
Valid Through: 04/01/28
Air Leakage Test Data Available: No



PRODUCT INFORMATION

Product Name: Alpen Zenith ZR-6 Fixed High Profile	
Manufacturer: Alpen High Performance Products	Primary Frame Material: Fiberglass
Series: Zenith ZR-6	Fixed or Operable: Fixed
Model: Zenith ZR-6 Fixed High Profile	Operation Type: Fixed

IGU DETAILS

Glazing Name: HighGain-6 TGT [35mm oa]		
Glass Layers: Triple	Gas Fill: Argon	Spacer: Ködispace 4SG

RECOMMENDED CLIMATE ZONES *(NOTE: This information is not for use in building energy models. See next section.)*

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	0.82	0.81	0.81	0.81	0.81	0.81	0.80	0.80	0.80	0.81
Modeled Size [W × H]	1.20 m × 1.50 m		SHGC, Whole Window: 0.47				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	0.72	0.70	0.70	0.70	0.69	0.70	0.69	0.69	0.68	0.70
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.59		

Frame Parameters	Left Jamb	Right Jamb	Head	Sill
Frame Section	Left	Right	Top	Bottom
Frame Width	72 mm	72 mm	72 mm	72 mm
Frame U-Value [W/m ² K]	0.84	0.84	0.85	0.85
Glazing-to-Frame Psi Value [W/mK]	0.0309	0.0309	0.0307	0.0307
Frame-to-Wall Psi Value is dependent on the on-site installation condition. <i>(See Phius Guidebook for more details.)</i>				



Phius Product Number: W-102649
Date Last Certified: 04/01/26
THERM Files Available: No

Phius Certification Path: Orange Path
Valid Through: 04/01/28
Air Leakage Test Data Available: No



PRODUCT INFORMATION

Product Name: Alpen Zenith ZR-6 Fixed High Profile	
Manufacturer: Alpen High Performance Products	Primary Frame Material: Fiberglass
Series: Zenith ZR-6	Fixed or Operable: Fixed
Model: Zenith ZR-6 Fixed High Profile	Operation Type: Fixed

IGU DETAILS

Glazing Name: SolarControl-6 TGT + Krypton [35mm oa]		
Glass Layers: Triple	Gas Fill: Krypton	Spacer: Ködispace 4SG

RECOMMENDED CLIMATE ZONES *(NOTE: This information is not for use in building energy models. See next section.)*

Recommended Climate Zones and Whole-Window U-values by Zone, at Standard Model Size [Btu/hr·ft²·°F]										
Climate Zone	0, 1, 2	3A	3B	3C	4A, 4B	4C, 5C	5A, 5B	6	7	8
Recommended Zones	✓	✓	✓	✓	✓	✓	✓	✓		
U-Whole-Window	0.11	0.11	0.11	0.11	0.12	0.11	0.12	0.12	0.13	0.14
Modeled Size [W×H]	47.24" × 59.06"		SHGC, Whole Window: 0.22				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·ft²·°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	0.09	0.09	0.10	0.10	0.11	0.11
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.27		

Frame Parameters	Left Jamb	Right Jamb	Head	Sill
Frame Section	Left	Right	Top	Bottom
Frame Width	2.83"	2.83"	2.83"	2.83"
Frame U-Value [Btu/hr·ft ² ·°F]	0.15	0.15	0.15	0.15
Glazing-to-Frame Psi Value [Btu/hr·ft ² ·°F]	0.0182	0.0182	0.0181	0.0181

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



Phius Product Number: W-102649
Date Last Certified: 04/01/26
THERM Files Available: No

Phius Certification Path: Orange Path
Valid Through: 04/01/28
Air Leakage Test Data Available: No



PRODUCT INFORMATION

Product Name: Alpen Zenith ZR-6 Fixed High Profile	
Manufacturer: Alpen High Performance Products	Primary Frame Material: Fiberglass
Series: Zenith ZR-6	Fixed or Operable: Fixed
Model: Zenith ZR-6 Fixed High Profile	Operation Type: Fixed

IGU DETAILS

Glazing Name: SolarControl-6 TGT + Krypton [35mm oa]		
Glass Layers: Triple	Gas Fill: Krypton	Spacer: Ködispace 4SG

RECOMMENDED CLIMATE ZONES *(NOTE: This information is not for use in building energy models. See next section.)*

Recommended Climate Zones and Whole-Window U-values by Zone, at Standard Model Size [W/m²K]										
Climate Zone	0, 1, 2	3A	3B	3C	4A, 4B	4C, 5C	5A, 5B	6	7	8
Recommended Zones	✓	✓	✓	✓	✓	✓	✓	✓		
U-Whole-Window	0.62	0.63	0.63	0.62	0.67	0.65	0.69	0.71	0.75	0.77
Modeled Size [W × H]	1.20 m × 1.50 m		SHGC, Whole Window: 0.22				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/m²K]										
Climate Zone	0, 1, 2	3A	3B	3C	4A, 4B	4C, 5C	5A, 5B	6	7	8
U-COG Value	0.46	0.47	0.47	0.45	0.52	0.49	0.55	0.56	0.61	0.65
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.27		

Frame Parameters	Left Jamb	Right Jamb	Head	Sill
Frame Section	Left	Right	Top	Bottom
Frame Width	72 mm	72 mm	72 mm	72 mm
Frame U-Value [W/m ² K]	0.84	0.84	0.85	0.85
Glazing-to-Frame Psi Value [W/mK]	0.0316	0.0316	0.0314	0.0314

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



Phius Product Number: W-102648
Date Last Certified: 04/01/26
THERM Files Available: No

Phius Certification Path: Orange Path
Valid Through: 04/01/28
Air Leakage Test Data Available: No



PRODUCT INFORMATION

Product Name: Alpen Zenith ZR-6 Fixed High Profile	
Manufacturer: Alpen High Performance Products	Primary Frame Material: Fiberglass
Series: Zenith ZR-6	Fixed or Operable: Fixed
Model: Zenith ZR-6 Fixed High Profile	Operation Type: Fixed

IGU DETAILS

Glazing Name: SolarControl-6 TGT [35mm oa]		
Glass Layers: Triple	Gas Fill: Argon	Spacer: Ködispace 4SG

RECOMMENDED CLIMATE ZONES *(NOTE: This information is not for use in building energy models. See next section.)*

Recommended Climate Zones and Whole-Window U-values by Zone, at Standard Model Size [Btu/hr·ft²·°F]										
Climate Zone	0, 1, 2	3A	3B	3C	4A, 4B	4C, 5C	5A, 5B	6	7	8
Recommended Zones	✓	✓	✓	✓	✓	✓	✓			
U-Whole-Window	0.14	0.14	0.14	0.14	0.13	0.14	0.13	0.13	0.13	0.14
Modeled Size [W×H]	47.24" × 59.06"		SHGC, Whole Window: 0.22				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·ft²·°F]										
Climate Zone	0, 1, 2	3A	3B	3C	4A, 4B	4C, 5C	5A, 5B	6	7	8
U-COG Value	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.12
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.28		

Frame Parameters	Left Jamb		Right Jamb		Head		Sill	
	Frame Section		Frame Section		Frame Section		Frame Section	
	Left		Right		Top		Bottom	
Frame Width	2.83"		2.83"		2.83"		2.83"	
Frame U-Value [Btu/hr·ft ² ·°F]	0.15		0.15		0.15		0.15	
Glazing-to-Frame Psi Value [Btu/hr·ft ² ·°F]	0.0181		0.0181		0.0180		0.0180	

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



Phius Product Number: W-102648
Date Last Certified: 04/01/26
THERM Files Available: No

Phius Certification Path: Orange Path
Valid Through: 04/01/28
Air Leakage Test Data Available: No



PRODUCT INFORMATION

Product Name: Alpen Zenith ZR-6 Fixed High Profile

Manufacturer: Alpen High Performance Products

Primary Frame Material: Fiberglass

Series: Zenith ZR-6

Fixed or Operable: Fixed

Model: Zenith ZR-6 Fixed High Profile

Operation Type: Fixed

IGU DETAILS

Glazing Name: SolarControl-6 TGT [35mm oa]

Glass Layers: Triple

Gas Fill: Argon

Spacer: Ködispace 4SG

RECOMMENDED CLIMATE ZONES *(NOTE: This information is not for use in building energy models. See next section.)*

Recommended Climate Zones and Whole-Window U-values by Zone, at Standard Model Size [W/m²K]

Climate Zone	0, 1, 2	3A	3B	3C	4A, 4B	4C, 5C	5A, 5B	6	7	8
Recommended Zones	✓	✓	✓	✓	✓	✓	✓			
U-Whole-Window	0.78	0.77	0.77	0.77	0.77	0.77	0.76	0.76	0.77	0.78
Modeled Size [W × H]	1.20 m × 1.50 m		SHGC, Whole Window: 0.22				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/m²K]

Climate Zone	0, 1, 2	3A	3B	3C	4A, 4B	4C, 5C	5A, 5B	6	7	8
U-COG Value	0.66	0.64	0.64	0.65	0.64	0.64	0.63	0.63	0.64	0.66
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.28		

Frame Parameters	Left Jamb	Right Jamb	Head	Sill
Frame Section	Left	Right	Top	Bottom
Frame Width	72 mm	72 mm	72 mm	72 mm
Frame U-Value [W/m ² K]	0.84	0.84	0.85	0.85
Glazing-to-Frame Psi Value [W/mK]	0.0314	0.0314	0.0313	0.0313
Frame-to-Wall Psi Value is dependent on the on-site installation condition. <i>(See Phius Guidebook for more details.)</i>				



Phius Product Number: W-102657
Date Last Certified: 04/03/26
THERM Files Available: No

Phius Certification Path: Orange Path
Valid Through: 04/03/28
Air Leakage Test Data Available: No



PRODUCT INFORMATION		
Product Name: Alpen ZR-6 Low Profile Fixed		
Manufacturer: Alpen High Performance Products	Primary Frame Material: Fiberglass	
Series: ZR-6	Fixed or Operable: Fixed	
Model: ZR-6 Low Profile Fixed	Operation Type: Fixed	
IGU DETAILS		
Glazing Name: SolarControl-6 TGT [35mm oa]		
Glass Layers: Triple	Gas Fill: Argon	Spacer: Ködispace 4SG

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	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	
Modeled Size [W×H]	47.24" × 59.06"			SHGC, Whole Window: 0.24				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	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.12
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.28		

Frame Parameters	Left Jamb	Right Jamb	Head	Sill
Frame Section	Left	Right	Top	Bottom
Frame Width	1.54"	1.54"	1.54"	1.54"
Frame U-Value [Btu/hr·ft ² ·°F]	0.22	0.22	0.22	0.22
Glazing-to-Frame Psi Value [Btu/hr·ft·°F]	0.0179	0.0179	0.0178	0.0179
Frame-to-Wall Psi Value is dependent on the on-site installation condition. <i>(See Phius Guidebook for more details.)</i>				



Phius Product Number: W-102657
Date Last Certified: 04/03/26
THERM Files Available: No

Phius Certification Path: Orange Path
Valid Through: 04/03/28
Air Leakage Test Data Available: No



PRODUCT INFORMATION

Product Name: Alpen ZR-6 Low Profile Fixed	
Manufacturer: Alpen High Performance Products	Primary Frame Material: Fiberglass
Series: ZR-6	Fixed or Operable: Fixed
Model: ZR-6 Low Profile Fixed	Operation Type: Fixed

IGU DETAILS

Glazing Name: SolarControl-6 TGT [35mm oa]		
Glass Layers: Triple	Gas Fill: Argon	Spacer: Ködispace 4SG

RECOMMENDED CLIMATE ZONES (NOTE: This information is not for use in building energy models. See next section.)

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	0.81	0.80	0.80	0.80	0.80	0.80	0.79	0.79	0.80	0.81
Modeled Size [W × H]	1.20 m × 1.50 m		SHGC, Whole Window: 0.24				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	0.66	0.64	0.64	0.65	0.64	0.64	0.63	0.63	0.64	0.66
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.28		

Frame Parameters	Left Jamb		Right Jamb		Head		Sill	
	Left		Right		Top		Bottom	
Frame Width	39 mm		39 mm		39 mm		39 mm	
Frame U-Value [W/m ² K]	1.26		1.26		1.26		1.26	
Glazing-to-Frame Psi Value [W/mK]	0.031		0.031		0.0309		0.031	
Frame-to-Wall Psi Value is dependent on the on-site installation condition. (See Phius Guidebook for more details.)								



Phius Product Number: W-102656
Date Last Certified: 04/03/26
THERM Files Available: No

Phius Certification Path: Orange Path
Valid Through: 04/03/28
Air Leakage Test Data Available: No



PRODUCT INFORMATION

Product Name: Alpen ZR-6 Low Profile Fixed	
Manufacturer: Alpen High Performance Products	Primary Frame Material: Fiberglass
Series: ZR-6	Fixed or Operable: Fixed
Model: ZR-6 Low Profile Fixed	Operation Type: Fixed

IGU DETAILS

Glazing Name: Balanced-6 TGT [35mm oa]		
Glass Layers: Triple	Gas Fill: Argon	Spacer: Ködispace 4SG

RECOMMENDED CLIMATE ZONES (NOTE: This information is not for use in building energy models. See next section.)

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	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
Modeled Size [W×H]	47.24" × 59.06"			SHGC, Whole Window: 0.34				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	0.12	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.39		

Frame Parameters	Left Jamb	Right Jamb	Head	Sill
Frame Section	Left	Right	Top	Bottom
Frame Width	1.54"	1.54"	1.54"	1.54"
Frame U-Value [Btu/hr·ft ² ·°F]	0.22	0.22	0.22	0.22
Glazing-to-Frame Psi Value [Btu/hr·ft ² ·°F]	0.0178	0.0178	0.0178	0.0178

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



Phius Product Number: W-102656
Date Last Certified: 04/03/26
THERM Files Available: No

Phius Certification Path: Orange Path
Valid Through: 04/03/28
Air Leakage Test Data Available: No



PRODUCT INFORMATION

Product Name: Alpen ZR-6 Low Profile Fixed	
Manufacturer: Alpen High Performance Products	Primary Frame Material: Fiberglass
Series: ZR-6	Fixed or Operable: Fixed
Model: ZR-6 Low Profile Fixed	Operation Type: Fixed

IGU DETAILS

Glazing Name: Balanced-6 TGT [35mm oa]		
Glass Layers: Triple	Gas Fill: Argon	Spacer: Ködispace 4SG

RECOMMENDED CLIMATE ZONES (NOTE: This information is not for use in building energy models. See next section.)

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	0.81	0.80	0.80	0.80	0.80	0.80	0.79	0.79	0.79	0.81
Modeled Size [W × H]	1.20 m × 1.50 m			SHGC, Whole Window: 0.34			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	0.66	0.64	0.64	0.65	0.64	0.64	0.64	0.63	0.63	0.65
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.39		

Frame Parameters	Left Jamb	Right Jamb	Head	Sill
Frame Section	Left	Right	Top	Bottom
Frame Width	39 mm	39 mm	39 mm	39 mm
Frame U-Value [W/m ² K]	1.26	1.26	1.26	1.26
Glazing-to-Frame Psi Value [W/mK]	0.0309	0.0309	0.0309	0.0309

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



Phius Product Number: W-102650
Date Last Certified: 04/01/26
THERM Files Available: No

Phius Certification Path: Orange Path
Valid Through: 04/01/28
Air Leakage Test Data Available: No



PRODUCT INFORMATION		
Product Name: Alpen Zenith ZR-9 Casement & Awning		
Manufacturer: Alpen High Performance Products	Primary Frame Material: Fiberglass	
Series: Zenith ZR-9	Fixed or Operable: Operable	
Model: Zenith ZR-9 Casement & Awning	Operation Type: Casement	
IGU DETAILS		
Glazing Name: Balanced-9 TGQ [35mm oa]		
Glass Layers: Quad	Gas Fill: Krypton	Spacer: Ködispace 4SG

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: 0.25				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	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.09	0.09	0.10
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.37		

Frame Parameters	Left Jamb	Right Jamb	Head	Sill
Frame Section	Left	Right	Top	Bottom
Frame Width	2.91"	2.91"	2.91"	2.91"
Frame U-Value [Btu/hr·ft ² ·°F]	0.19	0.19	0.19	0.19
Glazing-to-Frame Psi Value [Btu/hr·ft ² ·°F]	0.0182	0.0182	0.0181	0.0183

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



Phius Product Number: W-102650
Date Last Certified: 04/01/26
THERM Files Available: No

Phius Certification Path: Orange Path
Valid Through: 04/01/28
Air Leakage Test Data Available: No



PRODUCT INFORMATION

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

IGU DETAILS

Glazing Name: Balanced-9 TGQ [35mm oa]		
Glass Layers: Quad	Gas Fill: Krypton	Spacer: Ködispace 4SG

RECOMMENDED CLIMATE ZONES (NOTE: This information is not for use in building energy models. See next section.)

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	0.86	0.85	0.85	0.86	0.85	0.85	0.85	0.85	0.84	0.85
Modeled Size [W × H]	0.60 m × 1.50 m		SHGC, Whole Window: 0.25				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	0.56	0.55	0.55	0.55	0.54	0.55	0.54	0.54	0.53	0.54
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.37		

Frame Parameters	Left Jamb	Right Jamb	Head	Sill
Frame Section	Left	Right	Top	Bottom
Frame Width	74 mm	74 mm	74 mm	74 mm
Frame U-Value [W/m ² K]	1.10	1.10	1.11	1.11
Glazing-to-Frame Psi Value [W/mK]	0.0315	0.0315	0.0314	0.0317

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



Phius Product Number: W-102651
Date Last Certified: 04/01/26
THERM Files Available: No

Phius Certification Path: Orange Path
Valid Through: 04/01/28
Air Leakage Test Data Available: No



PRODUCT INFORMATION

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

IGU DETAILS

Glazing Name: HighGain-9 TGQ [35mm oa]		
Glass Layers: Quad	Gas Fill: Krypton	Spacer: Ködispace 4SG

RECOMMENDED CLIMATE ZONES *(NOTE: This information is not for use in building energy models. See next section.)*

Recommended Climate Zones and Whole-Window U-values by Zone, at Standard Model Size [Btu/hr·ft²·°F]										
Climate Zone	0, 1, 2	3A	3B	3C	4A, 4B	4C, 5C	5A, 5B	6	7	8
Recommended Zones					✓	✓	✓			
U-Whole-Window	0.16	0.16	0.16	0.16	0.15	0.16	0.15	0.15	0.15	0.15
Modeled Size [W×H]	23.62" × 59.06"			SHGC, Whole Window: 0.37			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·ft²·°F]										
Climate Zone	0, 1, 2	3A	3B	3C	4A, 4B	4C, 5C	5A, 5B	6	7	8
U-COG Value	0.11	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.55		

Frame Parameters	Left Jamb	Right Jamb	Head	Sill
Frame Section	Left	Right	Top	Bottom
Frame Width	2.91"	2.91"	2.91"	2.91"
Frame U-Value [Btu/hr·ft ² ·°F]	0.19	0.19	0.19	0.19
Glazing-to-Frame Psi Value [Btu/hr·ft·°F]	0.0181	0.0181	0.0180	0.0180

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



Phius Product Number: W-102651
Date Last Certified: 04/01/26
THERM Files Available: No

Phius Certification Path: Orange Path
Valid Through: 04/01/28
Air Leakage Test Data Available: No



PRODUCT INFORMATION

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

IGU DETAILS

Glazing Name: HighGain-9 TGQ [35mm oa]		
Glass Layers: Quad	Gas Fill: Krypton	Spacer: Ködispace 4SG

RECOMMENDED CLIMATE ZONES *(NOTE: This information is not for use in building energy models. See next section.)*

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	0.89	0.88	0.88	0.88	0.88	0.88	0.88	0.87	0.87	0.87
Modeled Size [W × H]	0.60 m × 1.50 m			SHGC, Whole Window: 0.37			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	0.61	0.59	0.59	0.60	0.59	0.59	0.58	0.58	0.57	0.58
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.55		

Frame Parameters	Left Jamb	Right Jamb	Head	Sill
Frame Section	Left	Right	Top	Bottom
Frame Width	74 mm	74 mm	74 mm	74 mm
Frame U-Value [W/m ² K]	1.10	1.10	1.11	1.11
Glazing-to-Frame Psi Value [W/mK]	0.0314	0.0314	0.0313	0.0313
Frame-to-Wall Psi Value is dependent on the on-site installation condition. <i>(See Phius Guidebook for more details.)</i>				



Phius Product Number: W-102652
Date Last Certified: 04/01/26
THERM Files Available: No

Phius Certification Path: Orange Path
Valid Through: 04/01/28
Air Leakage Test Data Available: No



PRODUCT INFORMATION

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

IGU DETAILS

Glazing Name: SolarControl-9 TGQ [35mm oa]		
Glass Layers: Quad	Gas Fill: Krypton	Spacer: Ködispace 4SG

RECOMMENDED CLIMATE ZONES *(NOTE: This information is not for use in building energy models. See next section.)*

Recommended Climate Zones and Whole-Window U-values by Zone, at Standard Model Size [Btu/hr·ft²·°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: 0.18				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·ft²·°F]										
Climate Zone	0, 1, 2	3A	3B	3C	4A, 4B	4C, 5C	5A, 5B	6	7	8
U-COG Value	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.09	0.09	0.10
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.26		

Frame Parameters	Left Jamb		Right Jamb		Head		Sill	
	Frame Section		Frame Section		Frame Section		Frame Section	
	Left		Right		Top		Bottom	
Frame Width	2.91"		2.91"		2.91"		2.91"	
Frame U-Value [Btu/hr·ft ² ·°F]	0.19		0.19		0.19		0.19	
Glazing-to-Frame Psi Value [Btu/hr·ft ² ·°F]	0.0182		0.0182		0.0182		0.0182	

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



Phius Product Number: W-102652
Date Last Certified: 04/01/26
THERM Files Available: No

Phius Certification Path: Orange Path
Valid Through: 04/01/28
Air Leakage Test Data Available: No



PRODUCT INFORMATION

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

IGU DETAILS

Glazing Name: SolarControl-9 TGQ [35mm oa]		
Glass Layers: Quad	Gas Fill: Krypton	Spacer: Ködispace 4SG

RECOMMENDED CLIMATE ZONES *(NOTE: This information is not for use in building energy models. See next section.)*

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	0.86	0.85	0.85	0.86	0.85	0.85	0.85	0.85	0.84	0.85
Modeled Size [W × H]	0.60 m × 1.50 m			SHGC, Whole Window: 0.18			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	0.56	0.55	0.55	0.55	0.54	0.55	0.54	0.54	0.54	0.55
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.26		

Frame Parameters	Left Jamb	Right Jamb	Head	Sill
Frame Section	Left	Right	Top	Bottom
Frame Width	74 mm	74 mm	74 mm	74 mm
Frame U-Value [W/m ² K]	1.10	1.10	1.11	1.11
Glazing-to-Frame Psi Value [W/mK]	0.0316	0.0316	0.0315	0.0315
Frame-to-Wall Psi Value is dependent on the on-site installation condition. <i>(See Phius Guidebook for more details.)</i>				



Phius Product Number: W-102653
Date Last Certified: 04/01/26
THERM Files Available: No

Phius Certification Path: Orange Path
Valid Through: 04/01/28
Air Leakage Test Data Available: No



PRODUCT INFORMATION

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

IGU DETAILS

Glazing Name: Balanced-9 TGQ [35mm oa]		
Glass Layers: Quad	Gas Fill: Krypton	Spacer: Ködispace 4SG

RECOMMENDED CLIMATE ZONES (NOTE: This information is not for use in building energy models. See next section.)

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	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
Modeled Size [W×H]	47.24" × 59.06"			SHGC, Whole Window: 0.29			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	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.09	0.09	0.10
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.37		

Frame Parameters	Left Jamb	Right Jamb	Head	Sill
Frame Section	Left	Right	Top	Bottom
Frame Width	2.83"	2.83"	2.83"	2.83"
Frame U-Value [Btu/hr·ft ² ·°F]	0.15	0.15	0.15	0.15
Glazing-to-Frame Psi Value [Btu/hr·ft·°F]	0.0188	0.0188	0.0187	0.0187

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



Phius Product Number: W-102653
Date Last Certified: 04/01/26
THERM Files Available: No

Phius Certification Path: Orange Path
Valid Through: 04/01/28
Air Leakage Test Data Available: No



PRODUCT INFORMATION		
Product Name: Alpen Zenith ZR-9 Fixed High Profile		
Manufacturer: Alpen High Performance Products	Primary Frame Material: Fiberglass	
Series: Zenith ZR-9	Fixed or Operable: Fixed	
Model: Zenith ZR-9 Fixed High Profile	Operation Type: Fixed	
IGU DETAILS		
Glazing Name: Balanced-9 TGQ [35mm oa]		
Glass Layers: Quad	Gas Fill: Krypton	Spacer: Ködispace 4SG

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	0.71	0.70	0.70	0.70	0.69	0.70	0.69	0.69	0.68	0.69
Modeled Size [W × H]	1.20 m × 1.50 m			SHGC, Whole Window: 0.29			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	0.56	0.55	0.55	0.55	0.54	0.55	0.54	0.54	0.53	0.54
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.37		

Frame Parameters	Left Jamb	Right Jamb	Head	Sill
Frame Section	Left	Right	Top	Bottom
Frame Width	72 mm	72 mm	72 mm	72 mm
Frame U-Value [W/m ² K]	0.84	0.84	0.85	0.85
Glazing-to-Frame Psi Value [W/mK]	0.0326	0.0326	0.0324	0.0324

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



Phius Product Number: W-102654
Date Last Certified: 04/01/26
THERM Files Available: No

Phius Certification Path: Orange Path
Valid Through: 04/01/28
Air Leakage Test Data Available: No



PRODUCT INFORMATION

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

IGU DETAILS

Glazing Name: HighGain-9 TGQ [35mm oa]		
Glass Layers: Quad	Gas Fill: Krypton	Spacer: Ködispace 4SG

RECOMMENDED CLIMATE ZONES (NOTE: This information is not for use in building energy models. See next section.)

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	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Modeled Size [W×H]	47.24" × 59.06"		SHGC, Whole Window: 0.44				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	0.11	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.55		

Frame Parameters	Left Jamb	Right Jamb	Head	Sill
Frame Section	Left	Right	Top	Bottom
Frame Width	2.83"	2.83"	2.83"	2.83"
Frame U-Value [Btu/hr·ft ² ·°F]	0.15	0.15	0.15	0.15
Glazing-to-Frame Psi Value [Btu/hr·ft ² ·°F]	0.0186	0.0186	0.0184	0.0184

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



Phius Product Number: W-102654
Date Last Certified: 04/01/26
THERM Files Available: No

Phius Certification Path: Orange Path
Valid Through: 04/01/28
Air Leakage Test Data Available: No



PRODUCT INFORMATION

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

IGU DETAILS

Glazing Name: HighGain-9 TGQ [35mm oa]		
Glass Layers: Quad	Gas Fill: Krypton	Spacer: Ködispace 4SG

RECOMMENDED CLIMATE ZONES *(NOTE: This information is not for use in building energy models. See next section.)*

Recommended Climate Zones and Whole-Window U-values by Zone, at Standard Model Size [W/m²K]										
Climate Zone	0, 1, 2	3A	3B	3C	4A, 4B	4C, 5C	5A, 5B	6	7	8
Recommended Zones						✓	✓	✓		
U-Whole-Window	0.74	0.73	0.73	0.73	0.73	0.73	0.72	0.72	0.71	0.72
Modeled Size [W × H]	1.20 m × 1.50 m		SHGC, Whole Window: 0.44				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/m²K]										
Climate Zone	0, 1, 2	3A	3B	3C	4A, 4B	4C, 5C	5A, 5B	6	7	8
U-COG Value	0.61	0.59	0.59	0.60	0.59	0.59	0.58	0.58	0.57	0.58
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.55		

Frame Parameters	Left Jamb		Right Jamb		Head		Sill	
	Left		Right		Top		Bottom	
Frame Width	72 mm		72 mm		72 mm		72 mm	
Frame U-Value [W/m²K]	0.84		0.84		0.85		0.85	
Glazing-to-Frame Psi Value [W/mK]	0.0322		0.0322		0.032		0.032	

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



Phius Product Number: W-102655
Date Last Certified: 04/01/26
THERM Files Available: No

Phius Certification Path: Orange Path
Valid Through: 04/01/28
Air Leakage Test Data Available: No



PRODUCT INFORMATION

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

IGU DETAILS

Glazing Name: SolarControl-9 TGQ [35mm oa]		
Glass Layers: Quad	Gas Fill: Krypton	Spacer: Ködispace 4SG

RECOMMENDED CLIMATE ZONES (NOTE: This information is not for use in building energy models. See next section.)

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	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
Modeled Size [W×H]	47.24" × 59.06"		SHGC, Whole Window: 0.20				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·ft²·°F]

Climate Zone	0, 1, 2	3A	3B	3C	4A, 4B	4C, 5C	5A, 5B	6	7	8
U-COG Value	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.09	0.09	0.10
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.26		

Frame Parameters	Left Jamb	Right Jamb	Head	Sill
Frame Section	Left	Right	Top	Bottom
Frame Width	2.83"	2.83"	2.83"	2.83"
Frame U-Value [Btu/hr·ft ² ·°F]	0.15	0.15	0.15	0.15
Glazing-to-Frame Psi Value [Btu/hr·ft·°F]	0.0189	0.0189	0.0188	0.0188
Frame-to-Wall Psi Value is dependent on the on-site installation condition. (See Phius Guidebook for more details.)				



Phius Product Number: W-102655
Date Last Certified: 04/01/26
THERM Files Available: No

Phius Certification Path: Orange Path
Valid Through: 04/01/28
Air Leakage Test Data Available: No



PRODUCT INFORMATION

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

IGU DETAILS

Glazing Name: SolarControl-9 TGQ [35mm oa]		
Glass Layers: Quad	Gas Fill: Krypton	Spacer: Ködispace 4SG

RECOMMENDED CLIMATE ZONES (NOTE: This information is not for use in building energy models. See next section.)

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	0.71	0.70	0.70	0.70	0.69	0.70	0.69	0.69	0.69	0.70
Modeled Size [W × H]	1.20 m × 1.50 m		SHGC, Whole Window: 0.20				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	0.56	0.55	0.55	0.55	0.54	0.55	0.54	0.54	0.54	0.55
SHGC-COG Center of Glass Solar Heat Gain Coefficient, All Climate Zones								0.26		

Frame Parameters	Left Jamb	Right Jamb	Head	Sill
Frame Section	Left	Right	Top	Bottom
Frame Width	72 mm	72 mm	72 mm	72 mm
Frame U-Value [W/m ² K]	0.84	0.84	0.85	0.85
Glazing-to-Frame Psi Value [W/mK]	0.0328	0.0328	0.0327	0.0327
Frame-to-Wall Psi Value is dependent on the on-site installation condition. (See Phius Guidebook for more details.)				