

Calculation based on ISO 10077-2, EN 673, EN 410

Product name: Alpen Zenith ZR-9 Fixed High Profile			Center-of-glass properties		
ASHRAE/IECC /DOE North American Climate Zone	North, East, West - facing	South-facing	Alpen High Performance Products Balanced-9 No Grids		
			Whole-window installed U-value		
Climate specific recommendations:			Ucog-Value		
			W/m2K	BTU/hr.ft2.F	SHGC W/m2K
8			0.75	0.13	0.333 0.428 0.075
7			0.75	0.13	0.333 0.427 0.075
6	<input checked="" type="checkbox"/>		0.76	0.13	0.333 0.433 0.076
5	<input checked="" type="checkbox"/>		0.76	0.13	0.333 0.434 0.076
4	<input checked="" type="checkbox"/>		0.76	0.13	0.333 0.437 0.077
Marine North	<input checked="" type="checkbox"/>		0.76	0.13	0.333 0.439 0.077
Marine South	<input checked="" type="checkbox"/>		0.77	0.13	0.333 0.442 0.078
3	<input checked="" type="checkbox"/>		0.76	0.13	0.333 0.440 0.078
2 West			0.77	0.14	0.333 0.450 0.079
2 East			0.77	0.14	0.333 0.450 0.079
Alpen Zenith ZR-9 Fixed High			FRAME		
Allmetal 250P SST		Frame height		U-frame	
		mm	in	W/m2K	BTU/hr.ft2.F
Head		72	2.83	0.92	0.16
Sill		72	2.83	0.92	0.16
left jamb		72	2.83	0.92	0.16
right jamb		72	2.83	0.92	0.16
Psi-spacer			Psi		Psi-opaque
			W/mK	BTU/hr.ft.F	W/mK
			0.056	0.032	0.126
			0.056	0.032	BTU/hr.ft.F
			0.056	0.033	0.073
			0.056	0.033	Grade B

Valid through April 2022



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Product name: Alpen Zenith ZR-9 Fixed High Profile			Center-of-glass properties		
ASHRAE/IECC /DOE North American Climate Zone	North, East, West - facing	South-facing	Alpen High Performance Products HighGain-9 No Grids		
			Whole-window installed U-value		
Climate specific recommendations:			Ucog-Value		
			W/m2K	BTU/hr.ft2.F	SHGC W/m2K
8			0.79	0.14	0.478 0.478 0.084
7			0.80	0.14	0.478 0.482 0.085
6			0.80	0.14	0.478 0.488 0.086
5	<input checked="" type="checkbox"/>		0.80	0.14	0.478 0.490 0.086
4			0.80	0.14	0.478 0.493 0.087
Marine North			0.81	0.14	0.478 0.495 0.087
Marine South	<input checked="" type="checkbox"/>		0.81	0.14	0.478 0.495 0.087
3	<input checked="" type="checkbox"/>		0.81	0.14	0.478 0.497 0.088
2 West			0.82	0.14	0.478 0.509 0.090
2 East			0.82	0.14	0.478 0.509 0.090
Alpen Zenith ZR-9 Fixed High			FRAME		
Allmetal 250P SST			Frame height		Ψ
			mm	in	W/mK BTU/hr.ft.F
Head	72	2.83	0.92	0.16	0.055 0.032
Sill	72	2.83	0.92	0.16	0.055 0.032
left jamb	72	2.83	0.92	0.16	0.056 0.032
right jamb	72	2.83	0.92	0.16	0.056 0.032
			Psi-spacer		Psi-opaque
			W/mK	BTU/hr.ft.F	W/mK
					0.126
					BTU/hr.ft.F
					0.073
					Grade B

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Calculation based on ISO 10077-2, EN 673, EN 410

Product name: Alpen Zenith ZR-9 Casement/Awning			Center-of-glass properties		
ASHRAE/IECC /DOE North American Climate Zone	North, East, West - facing	South-facing	Alpen High Performance Products Balanced-9 No Grids		
			Whole-window installed U-value		
Climate specific recommendations:			Ucog-Value		
			W/m2K	BTU/hr.ft2.F	SHGC W/m2K
8			0.80	0.14	0.333 0.428 0.075
7			0.80	0.14	0.333 0.427 0.075
6			0.81	0.14	0.333 0.433 0.076
5	<input checked="" type="checkbox"/>		0.81	0.14	0.333 0.434 0.076
4	<input checked="" type="checkbox"/>		0.81	0.14	0.333 0.437 0.077
Marine North	<input checked="" type="checkbox"/>		0.81	0.14	0.333 0.439 0.077
Marine South	<input checked="" type="checkbox"/>		0.81	0.14	0.333 0.442 0.078
3	<input checked="" type="checkbox"/>		0.81	0.14	0.333 0.440 0.078
2 West			0.82	0.14	0.333 0.450 0.079
2 East			0.82	0.14	0.333 0.450 0.079
Alpen Zenith ZR-9 Casement/ Allmetal 250P SST			FRAME		
			Frame height		Ψ
			mm	in	W/mK
					BTU/hr.ft.F
Head	73	2.86	1.17	0.21	0.054 0.031 0.145
Sill	73	2.86	1.17	0.21	0.055 0.032 BTU/hr.ft.F
left jamb	73	2.86	1.16	0.21	0.055 0.032 0.084
right jamb	73	2.86	1.16	0.21	0.055 0.032 Grade B

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Product name: Alpen Zenith ZR-9 Casement/Awning			Center-of-glass properties		
ASHRAE/IECC /DOE North American Climate Zone	North, East, West - facing	South-facing	Alpen High Performance Products HighGain-9 No Grids		
			Whole-window installed U-value		
Climate specific recommendations:			Ucog-Value		
			W/m2K	BTU/hr.ft2.F	SHGC W/m2K
8			0.84	0.15	0.478 0.478 0.084
7			0.84	0.15	0.478 0.482 0.085
6			0.85	0.15	0.478 0.488 0.086
5			0.85	0.15	0.478 0.490 0.086
4			0.85	0.15	0.478 0.493 0.087
Marine North			0.85	0.15	0.478 0.495 0.087
Marine South	<input checked="" type="checkbox"/>		0.85	0.15	0.478 0.495 0.087
3	<input checked="" type="checkbox"/>		0.85	0.15	0.478 0.497 0.088
2 West			0.86	0.15	0.478 0.509 0.090
2 East			0.86	0.15	0.478 0.509 0.090
Alpen Zenith ZR-9 Casement/ Allmetal 250P SST			FRAME		Psi-spacer
			Frame height	U-frame	Psi-spacer
			mm	in	W/mK
Head	73	2.86	1.17	0.21	0.053
Sill	73	2.86	1.17	0.21	0.054
left jamb	73	2.86	1.16	0.20	0.054
right jamb	73	2.86	1.16	0.20	0.054
					0.031
					0.144
					BTU/hr.ft.F
					0.083
					Grade B

Valid through April 2022

