

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

Product name: Alpen Zenith ZR-6 Fixed High Profile			Center-of-glass properties		
ASHRAE/IECC /DOE North American Climate Zone	South-facing	North, East, West - facing	Alpen High Performance Products Balanced-6 No Grids		
Whole-window installed U-value					<b>Ucog-Value</b>
W/m2K      BTU/hr.ft2.F					SHGC      W/m2K      BTU/hr.ft2.F
<b>Climate specific recommendations:</b>			0.91      0.16	0.337      0.654      0.115	
8			0.89      0.16	0.337      0.631      0.111	
7			0.89      0.16	0.337      0.632      0.111	
6			0.89      0.16	0.337      0.634      0.112	
5			0.90      0.16	0.337      0.638      0.112	
4			0.90      0.16	0.337      0.641      0.113	
Marine North	<input checked="" type="checkbox"/>		0.90      0.16	0.337      0.646      0.114	
Marine South	<input checked="" type="checkbox"/>		0.90      0.16	0.337      0.643      0.113	
3	<input checked="" type="checkbox"/>		0.91      0.16	0.337      0.658      0.116	
2 West			0.91      0.16	0.337      0.658      0.116	
2 East			0.91      0.16	0.337      0.658      0.116	
<b>Alpen Zenith ZR-6 Fixed High</b>			<b>FRAME</b>		
Allmetal 250P SST			Frame height	U-frame	Psi-spacer
			mm      in	W/m2K      BTU/hr.ft2.F	$\Psi$
				W/mK      BTU/hr.ft.F	Psi-opaque
			Head	72      2.85      0.86      0.15	0.050      0.029
			Sill	72      2.85      0.86      0.15	0.051      0.029
			left jamb	72      2.85      0.86      0.15	0.051      0.029
			right jamb	72      2.85      0.86      0.15	0.051      0.029
					Grade B

Valid through April 2022



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Product name: Alpen Zenith ZR-6 Fixed High Profile			Center-of-glass properties				
ASHRAE/IECC /DOE North American Climate Zone	South-facing	North, East, West - facing	Alpen High Performance Products 108/L No Grids				
			Whole-window installed U-value		Ucog-Value		
Climate specific recommendations:			W/m2K	BTU/hr.ft2.F	SHGC W/m2K		
8			0.98	0.17	0.538 0.746 0.131		
7			0.96	0.17	0.538 0.725 0.128		
6			0.97	0.17	0.538 0.733 0.129		
5			0.97	0.17	0.538 0.735 0.129		
4			0.97	0.17	0.538 0.741 0.130		
Marine North			0.98	0.17	0.538 0.745 0.131		
Marine South			0.98	0.17	0.538 0.751 0.132		
3			0.98	0.17	0.538 0.747 0.132		
2 West			0.99	0.18	0.538 0.766 0.135		
2 East			0.99	0.18	0.538 0.766 0.135		
Alpen Zenith ZR-6 Fixed High Allmetal 250P SST			FRAME		Psi-spacer		
			Frame height	U-frame	$\Psi$		
			mm	in	W/mK	BTU/hr.ft.F	W/mK
Head	72	2.85	0.86	0.15	0.049	0.028	0.115
Sill	72	2.85	0.86	0.15	0.050	0.029	BTU/hr.ft.F
left jamb	72	2.85	0.86	0.15	0.050	0.029	0.067
right jamb	72	2.85	0.86	0.15	0.050	0.029	Grade B

Valid through September 2022



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

Product name: Alpen Zenith ZR-6 Casement/Awning			Center-of-glass properties		
ASHRAE/IECC /DOE North American Climate Zone	South-facing	North, East, West - facing	Alpen High Performance Products Balanced-6 No Grids		
			Whole-window installed U-value		
Climate specific recommendations:			W/m2K	BTU/hr.ft2.F	Ucog-Value
8			0.97	0.17	0.337 0.654 0.115
7			0.95	0.17	0.337 0.631 0.111
6			0.95	0.17	0.337 0.632 0.111
5			0.96	0.17	0.337 0.634 0.112
4			0.96	0.17	0.337 0.638 0.112
Marine North			0.96	0.17	0.337 0.641 0.113
Marine South	<input checked="" type="checkbox"/>		0.97	0.17	0.337 0.646 0.114
3	<input checked="" type="checkbox"/>		0.96	0.17	0.337 0.643 0.113
2 West			0.97	0.17	0.337 0.658 0.116
2 East			0.97	0.17	0.337 0.658 0.116
Alpen Zenith ZR-6 Casement/ Allmetal 250P SST			FRAME		Psi-spacer
			Frame height	U-frame	$\Psi$
			mm	W/m2K	BTU/hr.ft.F
Head	73	2.86	1.11	0.20	0.055 0.032
Sill	73	2.86	1.11	0.20	0.056 0.032
left jamb	73	2.86	1.11	0.19	0.056 0.032
right jamb	73	2.86	1.11	0.19	0.056 0.032
					Grade B

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Product name: Alpen Zenith ZR-6 Casement/Awning			Center-of-glass properties		
ASHRAE/IECC /DOE North American Climate Zone	North, East, West - facing	South-facing	Alpen High Performance Products SolarControl-6 No Grids		
Whole-window installed U-value					<b>Ucog-Value</b>
W/m2K      BTU/hr.ft2.F					SHGC      W/m2K      BTU/hr.ft2.F
<b>Climate specific recommendations:</b>					
8			1.01	0.18	0.239      0.708      0.125
7			0.99	0.17	0.239      0.690      0.122
6			0.98	0.17	0.239      0.677      0.119
5			0.98	0.17	0.239      0.680      0.120
4			0.99	0.17	0.239      0.684      0.121
Marine North			0.99	0.17	0.239      0.688      0.121
Marine South	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0.99	0.18	0.239      0.694      0.122
3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0.99	0.17	0.239      0.690      0.122
2 West	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1.00	0.18	0.239      0.707      0.124
2 East	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1.00	0.18	0.239      0.707      0.124
<b>Alpen Zenith ZR-6 Casement/</b>		<b>FRAME</b>		<b>Psi-spacer</b>	<b>Psi-opaque</b>
<b>Allmetal 250P SST</b>		Frame height	U-frame	$\Psi$	
		mm      in	W/m2K      BTU/hr.ft2.F	W/mK	BTU/hr.ft.F
Head	73	2.86	1.11      0.20	0.051	0.030
Sill	73	2.86	1.11      0.20	0.052	0.030
left jamb	73	2.86	1.11      0.20	0.052	0.030
right jamb	73	2.86	1.11      0.20	0.052	0.030

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Product name: Alpen Zenith ZR-6 Casement/Awning			Center-of-glass properties		
ASHRAE/IECC /DOE North American Climate Zone	North, East, West - facing	South-facing	Alpen High Performance Products HighGain-6 No Grids		
Whole-window installed U-value					<b>Ucog-Value</b>
W/m2K      BTU/hr.ft2.F					SHGC      W/m2K      BTU/hr.ft2.F
<b>Climate specific recommendations:</b>			8	1.03      0.18	0.538      0.746      0.131
7			7	1.02      0.18	0.538      0.725      0.128
6			6	1.02      0.18	0.538      0.733      0.129
5			5	1.03      0.18	0.538      0.735      0.129
4			4	1.03      0.18	0.538      0.741      0.130
Marine North			Marine North	1.03      0.18	0.538      0.745      0.131
Marine South			Marine South	1.04      0.18	0.538      0.751      0.132
3			3	1.03      0.18	0.538      0.747      0.132
2 West			2 West	1.05      0.18	0.538      0.766      0.135
2 East			2 East	1.05      0.18	0.538      0.766      0.135
<b>Alpen Zenith ZR-6 Casement/ Allmetal 250P SST</b>		<b>FRAME</b>		<b>Psi-spacer</b>	<b>Psi-opaque</b>
		Frame height	U-frame	$\Psi$	
		mm      in	W/m2K      BTU/hr.ft2.F	W/mK	BTU/hr.ft.F
Head	73	2.86	1.11      0.20	0.051	0.029
Sill	73	2.86	1.11      0.20	0.051	0.030
left jamb	73	2.86	1.11      0.20	0.051	0.030
right jamb	73	2.86	1.11      0.20	0.051	0.030

Valid through April 2022

