



ZR-6 Series Fixed High Profile Balanced-6

Product name: 525-S Fixed HP 5S-L				Center-of-glass properties				
ASHRAE/IECC /DOE North American Climate Zone	North, East, West - facing South-facing			Alpen High Performance Products 5S-L (Alpen_109)				
Climate specific recommendations:		Whole-window installed U-value		Ucog-Value				
		W/m2K	BTU/hr.ft2.F	SHGC No Internal Grids	W/m2K	BTU/hr.ft2.F		
8		0.91	0.16	0.337	0.654	0.115		
7		0.89	0.16	0.337	0.631	0.111		
6		0.89	0.16	0.337	0.632	0.111		
5		0.89	0.16	0.337	0.634	0.112		
4		0.90	0.16	0.337	0.638	0.112		
Marine North	✓	0.90	0.16	0.337	0.641	0.113		
Marine South	✓	0.90	0.16	0.337	0.646	0.114		
3	✓	0.90	0.16	0.337	0.643	0.113		
2 West		0.91	0.16	0.337	0.658	0.116		
2 East		0.91	0.16	0.337	0.658	0.116		
525-S Fixed HP 5S-L 008 SST		FRAME			Psi-spacer		Psi-opaque	
		Frame height		U-frame		Ψ		W/mK
	mm	in	W/m2K	BTU/hr.ft2.F	W/mK	BTU/hr.ft.F		
	Head	72	2.85	0.86	0.15	0.050	0.029	0.116
	Sill	72	2.85	0.86	0.15	0.051	0.029	BTU/hr.ft.F
	left jamb	72	2.85	0.86	0.15	0.051	0.029	0.067
	right jamb	72	2.85	0.86	0.15	0.051	0.029	Grade B


Valid through March 2019

ZR-6 Series Fixed High Profile HighGain-6

Product name: 525-S Fixed HP 5S-H				Center-of-glass properties				
ASHRAE/IECC /DOE North American Climate Zone	North, East, West - facing South-facing			Alpen High Performance Products 5S-H (Alpen_108)				
Climate specific recommendations:		Whole-window installed U-value		Ucog-Value				
		W/m2K	BTU/hr.ft2.F	SHGC No Internal Grids	W/m2K	BTU/hr.ft2.F		
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		
525-S Fixed HP 5S-H		FRAME			Psi-spacer		Psi-opaque	
008 SST		Frame height		U-frame		Ψ		W/mK
		mm	in	W/m2K	BTU/hr.ft2.F	W/mK	BTU/hr.ft.F	
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 March 2019

ZR-6 Series Casement/Awning Balanced-6

Product name: 525-S Casement 5S-L		Center-of-glass properties						
ASHRAE/IECC /DOE North American Climate Zone	North, East, West - facing South-facing			Alpen High Performance Products 5S-L (Alpen_109)				
Climate specific recommendations:		Whole-window installed U-value		Ucog-Value				
		W/m2K	BTU/hr.ft2.F	SHGC No Internal Grids	W/m2K	BTU/hr.ft2.F		
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	✓	0.97	0.17	0.337	0.646	0.114		
3	✓	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		
525-S Casement 5S-L		FRAME			Psi-spacer		Psi-opaque	
		Frame height		U-frame		Ψ		
008 SST		mm	in	W/m2K	BTU/hr.ft2.F	W/mK		
	Head	73	2.86	1.11	0.20	0.055	0.032	0.141
	Sill	73	2.86	1.11	0.20	0.056	0.032	BTU/hr.ft.F
	left jamb	73	2.86	1.11	0.19	0.056	0.032	0.081
	right jamb	73	2.86	1.11	0.19	0.056	0.032	Grade B


Valid through March 2019

ZR-6 Series Casement/Awning HighGain-6

Product name: 525-S Casement 5S-H				Center-of-glass properties				
ASHRAE/IECC /DOE North American Climate Zone	North, East, West - facing South-facing			Alpen High Performance Products 5S-H (Alpen_108)				
Climate specific recommendations:		Whole-window installed U-value		Ucog-Value				
		W/m2K	BTU/hr.ft2.F	SHGC No Internal Grids	W/m2K	BTU/hr.ft2.F		
8		1.03	0.18	0.538	0.746	0.131		
7		1.02	0.18	0.538	0.725	0.128		
6		1.02	0.18	0.538	0.733	0.129		
5		1.03	0.18	0.538	0.735	0.129		
4		1.03	0.18	0.538	0.741	0.130		
Marine North		1.03	0.18	0.538	0.745	0.131		
Marine South		1.04	0.18	0.538	0.751	0.132		
3		1.03	0.18	0.538	0.747	0.132		
2 West		1.05	0.18	0.538	0.766	0.135		
2 East		1.05	0.18	0.538	0.766	0.135		
525-S Casement 5S-H 008 SST		FRAME				Psi-spacer		Psi-opaque
		Frame height		U-frame		Ψ		W/mK
	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	0.137
	Sill	73	2.86	1.11	0.20	0.051	0.030	BTU/hr.ft.F
	left jamb	73	2.86	1.11	0.20	0.051	0.030	0.079
	right jamb	73	2.86	1.11	0.20	0.051	0.030	Grade B

Valid through March 2019

ZR-6 Series Casement/Awning SolarControl-6

Product name: 525-S Casement 5S-L2				Center-of-glass properties			
ASHRAE/IECC /DOE North American Climate Zone	North, East, West - facing South-facing			Alpen High Performance Products 5S-L2 (Alpen_017)			
Climate specific recommendations:		Whole-window installed U-value		Ucog-Value			
		W/m2K	BTU/hr.ft2.F	SHGC No Internal Grids	W/m2K	BTU/hr.ft2.F	
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	✓	0.99	0.18	0.239	0.694	0.122	
3	✓	0.99	0.17	0.239	0.690	0.122	
2 West	✓	1.00	0.18	0.239	0.707	0.124	
2 East	✓	1.00	0.18	0.239	0.707	0.124	
525-S Casement 5S-L2		FRAME			Psi-spacer		Psi-opaque
008 SST		Frame height		U-frame		Ψ	
		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
							W/mK
							Grade B

Valid through March 2019