

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

Product name: Alpen Tyrol TR-6 Thin Glass Triple Fixed		Center-of-glass properties						
ASHRAE/IECC /DOE North American Climate Zone	North, East, West - facing South-facing			Alpen Balanced-6 PH+ TGT No Grids				
Climate specific recommendations:		Whole-window installed U-value		Ucog-Value				
		W/m2K	BTU/hr.ft2.F	SHGC	W/m2K	BTU/hr.ft2.F		
8		0.85	0.15	0.386	0.664	0.117		
7		0.82	0.15	0.386	0.630	0.111		
6		0.78	0.14	0.386	0.578	0.102		
5	✓	0.77	0.14	0.386	0.564	0.099		
4	✓	0.76	0.13	0.386	0.555	0.098		
Marine North	✓	0.77	0.14	0.386	0.558	0.098		
Marine South	✓	0.77	0.14	0.386	0.563	0.099		
3	✓	0.77	0.14	0.386	0.560	0.099		
2 West		0.78	0.14	0.386	0.573	0.101		
2 East		0.78	0.14	0.386	0.573	0.101		
Alpen Tyrol TR-6 Thin Glass Triple Fixed Triseal Premium	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	74	2.89	0.85	0.15	0.026	0.015	0.093
	Sill	74	2.89	0.85	0.15	0.027	0.015	BTU/hr.ft.F
left jamb	74	2.89	0.85	0.15	0.027	0.015	0.054	
right jamb	74	2.89	0.85	0.15	0.027	0.015	Grade A	

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Product name: Alpen Tyrol TR-6 Thin Glass Triple Tilt-Turn		Center-of-glass properties					
ASHRAE/IECC /DOE North American Climate Zone	North, East, West - facing South-facing			Alpen Balanced-6 PH+ TGT No Grids			
Climate specific recommendations:		Whole-window installed U-value		Ucog-Value			
		W/m2K	BTU/hr.ft2.F	SHGC	W/m2K	BTU/hr.ft2.F	
8		0.90	0.16	0.386	0.664	0.117	
7		0.88	0.16	0.386	0.630	0.111	
6		0.85	0.15	0.386	0.578	0.102	
5		0.84	0.15	0.386	0.564	0.099	
4	<input checked="" type="checkbox"/>	0.83	0.15	0.386	0.555	0.098	
Marine North	<input checked="" type="checkbox"/>	0.83	0.15	0.386	0.558	0.098	
Marine South	<input checked="" type="checkbox"/>	0.83	0.15	0.386	0.563	0.099	
3	<input checked="" type="checkbox"/>	0.83	0.15	0.386	0.560	0.099	
2 West		0.84	0.15	0.386	0.573	0.101	
2 East		0.84	0.15	0.386	0.573	0.101	
Alpen Tyrol TR-6 Thin Glass Triple Tilt-Turn Triseal Premium	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	117	4.61	0.94	0.17	0.030	0.017
Sill	117	4.61	0.94	0.17	0.030	0.018	BTU/hr.ft.F
left jamb	117	4.61	0.93	0.16	0.030	0.018	0.088
right jamb	117	4.61	0.93	0.16	0.030	0.018	Grade B

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Product name: Alpen Tyrol TR-6 Thin Glass Triple Tilt-Turn			Center-of-glass properties					
ASHRAE/IECC /DOE North American Climate Zone	North, East, West - facing	South- facing			Alpen SolarControl-6 PH+ TGT No Grids			
Climate specific recommendations:			Whole-window installed U-value		Ucog-Value			
			W/m2K	BTU/hr.ft2.F	SHGC	W/m2K	BTU/hr.ft2.F	
8			0.88	0.15	0.266	0.627	0.110	
7			0.85	0.15	0.266	0.591	0.104	
6			0.82	0.14	0.266	0.537	0.095	
5		✓	0.81	0.14	0.266	0.522	0.092	
4		✓	0.80	0.14	0.266	0.512	0.090	
Marine North		✓	0.80	0.14	0.266	0.514	0.091	
Marine South	✓	✓	0.80	0.14	0.266	0.518	0.091	
3	✓	✓	0.80	0.14	0.266	0.516	0.091	
2 West	✓	✓	0.81	0.14	0.266	0.527	0.093	
2 East	✓	✓	0.81	0.14	0.266	0.527	0.093	
Alpen Tyrol TR-6 Thin Glass T Triseal Premium	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	117	4.61	0.94	0.17	0.030	0.017	0.152
	Sill	117	4.61	0.94	0.17	0.031	0.018	BTU/hr.ft.F
left jamb	117	4.61	0.93	0.16	0.030	0.018	0.088	
right jamb	117	4.61	0.93	0.16	0.030	0.018	Grade B	

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Product name: Alpen Tyrol TR-6 Thin Glass Triple Tilt-Turn		Center-of-glass properties						
ASHRAE/IECC /DOE North American Climate Zone	North, East, West - facing South-facing			Alpen HighGain-6 PH+ TGT No Grids				
Climate specific recommendations:		Whole-window installed U-value		Ucog-Value				
		W/m2K	BTU/hr.ft2.F	SHGC	W/m2K	BTU/hr.ft2.F		
8		0.95	0.17	0.581	0.712 0.125			
7		0.92	0.16	0.581	0.680 0.120			
6		0.89	0.16	0.581	0.630 0.111			
5		0.88	0.16	0.581	0.617 0.109			
4	<input checked="" type="checkbox"/>	0.88	0.15	0.581	0.611 0.108			
Marine North	<input checked="" type="checkbox"/>	0.88	0.15	0.581	0.614 0.108			
Marine South		0.88	0.16	0.581	0.619 0.109			
3		0.88	0.15	0.581	0.616 0.108			
2 West		0.89	0.16	0.581	0.631 0.111			
2 East		0.89	0.16	0.581	0.631 0.111			
Alpen Tyrol TR-6 Thin Glass T Triseal Premium	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	117	4.61	0.94	0.17	0.030	0.017	0.155
	Sill	117	4.61	0.94	0.17	0.030	0.017	BTU/hr.ft.F
left jamb	117	4.61	0.93	0.16	0.037	0.021	0.090	
right jamb	117	4.61	0.93	0.16	0.037	0.021	Grade C	

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