

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

Product name: Alpen Tyrol TR-9 PH+ Thin Glass Quad Tilt Turn				Center-of-glass properties			
ASHRAE/IECC /DOE North American Climate Zone	North, East, West - facing	South- facing					
			Alpen HighGain-9H+TGQ 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			0.82	0.14	0.542	0.576	0.101
7			0.80	0.14	0.542	0.555	0.098
6			0.78	0.14	0.542	0.525	0.092
5	✓	✓	0.78	0.14	0.542	0.521	0.092
4	✓		0.78	0.14	0.542	0.523	0.092
Marine North	✓		0.79	0.14	0.542	0.526	0.093
Marine South			0.79	0.14	0.542	0.526	0.093
3			0.78	0.14	0.542	0.523	0.092
2 West			0.80	0.14	0.542	0.541	0.095
2 East			0.80	0.14	0.542	0.541	0.095
Alpen Tyrol TR-9 PH+ Thin Glass 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	0.86	0.15	0.032	0.018
Sill	117	4.61	0.86	0.15	0.032	0.018	BTU/hr.ft.F
left jamb	117	4.61	0.85	0.15	0.032	0.018	0.082
right jamb	117	4.61	0.85	0.15	0.032	0.018	Grade B

Valid through December 2021