



## Tyrol Series PH+ Windows and Doors

Alpen is committed to leading the industry through innovation, supporting a wide range of high performance building communities and providing **validated** proof that our product performance matches our claims.

We understand the challenges of designing and building a passive house certified project, and appreciate the extra lengths owners and consultants go through to be responsible stewards of our planet by promoting passive house principles.

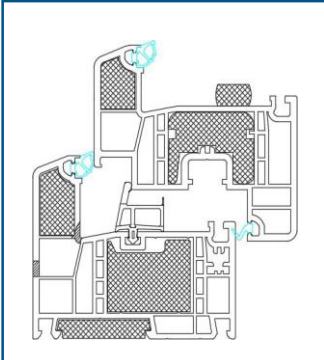
### Benefits of Tyrol Series PH+

- First North American manufacturer to achieve dual PHIUS and PHI certifications
- Thick-wall extrusions and compression seals deliver best-in-class sound attenuation STC/OITC ratings
- Custom crafted in the U.S., with short lead times and local servicing
- Highly knowledgeable and consultative support to help guide you through the process of making the best selections
- AAMA certified for residential, commercial and multifamily applications
- Award winning, fiberglass-reinforced, European style, Rehau 4700 Geneo profile





Passive House Institute – PHPP & WUFI Performance Data

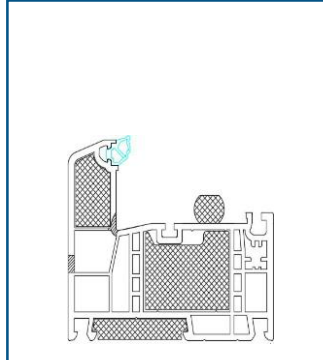


**PH+ Tilt Turn True Triple**

- PH Uf 0.13
- Frame Dimension 4.53"

**PH+ Tilt Turn Heat Mirror**

- PH Uf 0.14
- Frame Dimension 4.53"

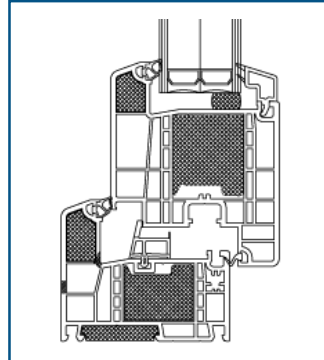


**PH+ Fixed True Triple**

- PH Uf 0.13
- Frame Dimension 2.83"

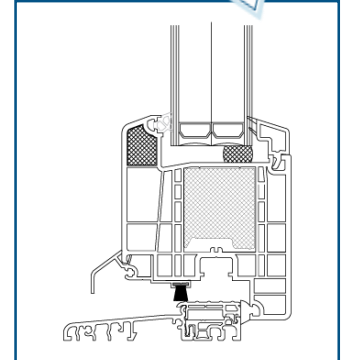
**PH+ Fixed Heat Mirror**

- PH Uf 0.13
- Frame Dimension 2.83"



**PH+ Swing Door**

- PH Uf 0.15
- Frame Dimension 5.56"



**PH+ Low Profile Door Sill**

- PH Uf 0.19
- Frame Dimension 4.50"

Glazing Data



Glazing Type	Overall Thickness [in]	U <sub>g</sub> [BTU/hr-ft <sup>2</sup> ·°F]	SHGC	VT	U <sub>w</sub> (Tilt-Turn) [BTU/hr-ft <sup>2</sup> ·°F]
HighGain-6 PH+ True Triple	1-7/8"	0.107	0.57	0.70	0.13
Balanced-6 PH+ True Triple	1-7/8"	0.096	0.38	0.57	0.12
SolarControl-6 PH+ True Triple	1-7/8"	0.098	0.28	0.57	0.12
Balanced-6 PH+	1-5/8"	0.095	0.37	0.56	0.13
SolarControl-6 PH+	1-5/8"	0.106	0.28	0.57	0.14
HighGain-6 PH+	1-5/8"	0.113	0.54	0.70	0.14
HighGain-6 Pro PH+	1-5/8"	0.102	0.51	0.67	0.13
Balanced-9 PH+	1-5/8"	0.066	0.33	0.49	0.11
Solarcontrol-9 PH+	1-5/8"	0.071	0.25	0.51	0.11
HighGain-9 PH+	1-5/8"	0.077	0.45	0.62	0.12
HighGain-9 Pro PH+	1-5/8"	0.070	0.44	0.60	0.11
TR-11 PH+	1-5/8"	0.060	0.21	0.38	0.106

These charts are a small representative sample of Tyrol Series PH+ products available for passive house. For additional options to fit your project's needs and optimize your energy model, please visit the Alpen website at:

[www.thinkalpen.com/passivehouse](http://www.thinkalpen.com/passivehouse)

