



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. As the **first North American manufacturer to achieve dual PHIUS and PHI certifications**, 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+ with ThinGlass

- 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
- AAMA rated for residential, commercial and multifamily applications
- Award-winning, fiberglass-reinforced, European style, REHAU™ 4700 Geneo™ profile
- U-values are as good as or better than equivalent suspended coated film
- Increased visible light transmission and condensation resistance



Achieve window U-values as low as 0.107 with thin glass and fiberglass-reinforced uPVC frames!

Glazing Data

Glazing Type	Overall Thickness [in]	Ug [BTU/hr·ft ² ·°F]	SHGC	Visible Transmittance	Uw (Tilt-Turn) [BTU/hr·ft ² ·°F]
Balanced-6 PH+ TGT	1-5/8"	0.095	0.386	0.580	0.119
SolarControl-6 PH+ TGT	1-5/8"	0.099	0.281	0.576	0.120
HighGain-6 PH+ TGT	1-5/8"	0.108	0.578	0.705	0.126
Balanced-9 PH+ TGQ	1-5/8"	0.081	0.361	0.536	0.108
Solarcontrol-9 PH+ TGQ	1-5/8"	0.080	0.262	0.534	0.107
HighGain-9 PH+ TGQ	1-5/8"	0.089	0.540	0.656	0.113

Featuring warm edge foam spacers:
glass edge **0.01 BTU/hr·ft**



Frame Data

Frame Type	Frame Dimension [in]	Uf [BTU/hr·ft ² ·°F]
PH+ Tilt Turn	4.53"	0.13
PH+ Fixed	2.83"	0.12
PH+ Swing Door	5.56"	0.14
PH+ Low Profile	4.50"	0.19

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/passive-house

