

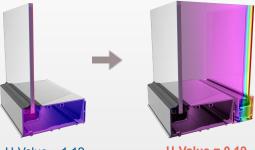
WinSert® High Performance Secondary Window Inserts

Improve Windows, Reduce Energy Loads & Increase Value Without Window Replacement

Derived from Alpen's decades of expertise, innovation and industry leadership manufacturing best-in-class high performance windows, WinSert® is an ultra-lightweight, high performance secondary window insert that solves one of the building industry's biggest challenges: how to cost-effectively retrofit aging, poor-performing commercial windows?

WinSert's unique and patented design couples state-of-the-art **ThinGlass** technology with proven, high performance, **super-insulated fiberglass frames** and mounts to the inside of an existing window with minimal or no penetrations. This creates an additional insulating chamber that transforms aging or low performing windows into air-tight, high performance windows **WITHOUT** the **time**, **cost** and **disruption** of **window** replacement.





U-Value = 1.12 SHGC = 0.72

U-Value = 0.19 SHGC = 0.30



"The building is performing absolutely amazingly. I remember previous 95°F to 100°F days when it would be 90°F on the southwest facing rooms in the afternoon and there'd be nothing I could do about it, so to see the entire fourth floor within one degree of setpoint at 72°F is an absolute confirmation that these windows work."

VP of Property Management, Hurley Development



Turn Existing
Single-Pane into
Triple-Pane



Improve Building Comfort & Temperature Control



Reduce Energy Loads & Prolong Lifetime of Existing Systems

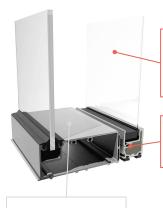


Reduce Operating Expenses



Reduce Carbon Footprint

WinSert Lite

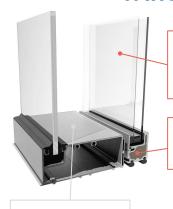


ThinGlass laminated to a customized high performance film

Super-insulated, low profile fiberglass frame

Existing Window

WinSert Plus



Gas-filled, high performance insulated gas unit (IGU) utilizing ThinGlass

Super-insulated, low profile **fiberglass frame**

Existing Window

	WinSert Lite	WinSert Plus
Weight	Entire unit averages < 1 lb/square foot	Dual-pane performance with single-pane weight
Thermal Insulation	Up to 2.5x better	Up to almost 6x better
Solar Heat Gain	Reduced by 47%	Reduced by 61%
Single Glazed U-factor	Improved to as low as 0.47	Improved to as low as 0.19
Single Glazed SHGC	Improved to as low as 0.38	Improved to as low as 0.28

WinSert makes high-efficiency building envelopes and facades a smart business decision

Features

- Award-winning, patented technology delivered by an industry-leading high performance window manufacturer
- High performance window components used for Passive House, Net Zero and Living Building Challenge applications
- Extensively third-party tested and verified
- Customizable configurations with complete color matching
- Lightweight form factor that can be installed in minutes
- Easily removable for primary window cleaning or maintenance when needed
- Low embodied energy content

Benefits

- Significantly improve existing window performance to triple- or quad-pane levels without replacement
- Reduce heating, cooling and fan loads by up to 48%
- Reduce window air leakage by up to 97%
- Improve occupant comfort and property value
- Install quickly with virtually zero occupant disruption
- Improve winter interior window surface temperature by 20°F
- Reduce summer radiant temperature by 20°F or more
- Reduce exterior noise and interior glare
- Reduce exterior window condensation
- Aesthetically invisible—perfect for historic applications
- Compelling payback and return on investment







