

Fiberglass Ribbon Window System



NEW Alpen Fiberglass Commercial Ribbon Window System

Alpen's new Ribbon Window System combines the *look* of conventional commercial aluminum storefront and strip windows with the *performance* of **fiberglass**. Boasting full-frame thermal values from R-5.3 (U-0.19) to R-7.7 (U-0.13), air infiltration resistance 3-4x better than aluminum storefront and fiberglass frames resistant to thermal conductivity to prevent occupant discomfort, the Alpen Fiberglass Ribbon Window System is poised to disrupt the aluminum window world.

Features:

- Structural capability to achieve expansive sizes and dramatic window walls
- Ultra-slim, modern profiles compliment modern design and commercial aesthetics
- Versatility allows incorporation of operable windows for natural ventilation
- Excellent sound attenuation
- Extensive range of Alpen super-insulating and directionally tuned glazing options available
- Modular design approach to installation delivers cost-effective alternative to aluminum site-assembled glazing
- Exclusive to Alpen: Suspended coated film glass technology and specialty architectural glass products can be
 used without sacrificing U-value. Alpen's Ribbon Window offers unique high thermal performance options
 including: Spandrel, Frit, Tint, Laminated, Dynamic, Photovoltaic Glass and Daylight Redirecting Optics



Fiberglass Ribbon Window System

TECHNICAL SPECIFICATIONS



Uses: Fixed, Ribbon/Strip, Large "Punched" Openings and Window Walls

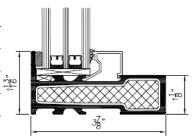
Applications: New Construction, Replacement, Residential, Commercial, Industrial & High Performance Buildings

Typical Whole-Window Performance Achieved with Alpenglass™:

| Alpenglass Type | Center-of-Glass | | | Full-Window | | | |
|-----------------|-----------------|------|------|-------------|---------|------|------|
| | U-value | SHGC | VLT | U-value | R-Value | SHGC | VLT |
| All Climate-5 | 0.13 | 0.36 | 0.64 | 0.19 | 5.3 | 0.32 | 0.55 |
| Solar Control-5 | 0.13 | 0.24 | 0.57 | 0.19 | 5.3 | 0.21 | 0.49 |
| High Light-5 | 0.14 | 0.51 | 0.70 | 0.19 | 5.3 | 0.44 | 0.60 |
| Solar Control-9 | 0.08 | 0.22 | 0.51 | 0.13 | 7.6 | 0.27 | 0.43 |
| High Light-9 | 0.08 | 0.46 | 0.63 | 0.13 | 7.6 | 0.39 | 0.53 |

Structural Performance:

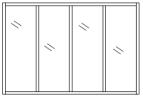
| Description | Result | | |
|----------------------------------|----------------------------------|--|--|
| AAMA A440-11 Primary Designator: | CW-PG55-FW | | |
| Air Infiltration Resistance: | 0.001 cfm/ft2 @ 1.57psf | | |
| Water Penetration Resistance: | No leakage at 15.04 psf (720 Pa) | | |
| Structural Test Pressure: | +/- 55.14 psf (2,160 Pa) | | |
| Forced Entry Resistance: | Grade 20 | | |



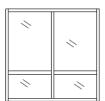
WINDOW STYLES: DESIGN IDEAS



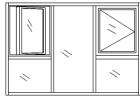
Fixed "Punched"



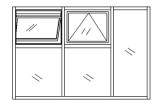
Fixed Ribbon With Vertical Mullions



Fixed Ribbon with Horizontal Mullions



Fixed Ribbon Combination With Casement Inserts



Fixed Ribbon Combination With Awning Inserts



Fixed Trapezoid Shapes

Installation: Anchor using factory- or field-applied anchor brackets supplied by Alpen HPP. Ribbons wider than 9' typically require field-assembly and field glazing of "filler" units between each factory-assembled/factory-glazed 'module'.

Exterior Trim Accessories: Aluminum Brickmold, 3-1/4" and 2-5/8" Frame Extenders

PAINT AND FINISH OPTIONS



