Series 510-I Thermal
2-7/16” Architectural Grade Projected Window

CONFIGURATIONS
Project-In • Project-Out • Casement • Fixed

Series 510-I retains an AAMA Architectural Grade rating to meet the most demanding specifications. Designed for educational, office or healthcare facilities, the 510-I window system is an attractive product for a wide range of applications. Multiple glazing options give you flexibility to meet specific design requirements. The thermal barrier is achieved with E-Strut™ thermal isolators providing enhanced thermal performance and allows dual finish capability. Offered with a complete line of sub frames, Mullions and architectural sills the 510-I window provides the complete solution for your fenestration needs.

Features | Benefits
--- | ---
E-Strut™ thermal isolator | Improves U-Factor performance
| Dual finish capability
| Completely eliminates dry shrinkage
Vertical or horizontal stacking members | Increases configuration options
Accommodates glazing units from 3/16” to 2” depth | Expands design and energy savings options
Dual glazing with optional integral blinds | Improved energy savings and interior light or privacy control with low maintenance
Pressure equalization | Superior water resistance
Angle reinforced vent corners | Improves sash/vent rigidity
Screen frames of extruded aluminum alloy are available | Stronger, more durable screens
Accessory line of subframes, Mullions, and architectural sills | Allows custom designs with standard product
Anodized or painted finishes available | Multiple options to answer economic and aesthetic concerns
PERFORMANCE DATA

PROJECTED ARCHITECTURAL GRADE

AAMA RATING: AP-AW1/2D
AIR INFILTRATION: <.10 CFM/SF @ 6.24 PSF
WATER: NO LEAKAGE @ 15.0 PSF
CRF-FRAME: 59

CASEMENT ARCHITECTURAL GRADE

AAMA RATING INSWING: AW-PG100
AAMA RATING OUTSWING: AW-PG140
AIR INFILTRATION: <.10 CFM/SF @ 6.24 PSF
WATER: NO LEAKAGE @ 12.0 PSF
CRF-FRAME: 57

FIXED ARCHITECTURAL GRADE

AAMA RATING: AW-PG160
AIR INFILTRATION: <.10 CFM/SF @ 6.24 PSF
WATER: NO LEAKAGE @ 15.0 PSF
CRF-FRAME: 61

Note: All performance value data is based on laboratory testing per AAMA 101/I.S.2/A440 for Air/Water/Structural, ASTM E90 and or E413 for Acoustical, AAMA 507 and or NFRC 100/200/500 for UFactors and AAMA 1503 for Condensation Resistance Factor (CRF). Printed values are subject to change pending the frequency of recertification testing. Field results will vary depending on size, the field test method, the addition of sub-frames, paning, multians, accessories and instalation into the surrounding condition.

S-510-I HARDWARE CHART

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<tr>
<th>BUTT HINGES</th>
<th>4-BAR ARMS</th>
<th>FRICTION ADJUSTER</th>
<th>KEY RELEASE</th>
<th>ROTOR OPERATOR*</th>
<th>CAM HANDLE</th>
<th>POLE RING CAM HANDLE</th>
<th>POLE RING PULL**</th>
<th>ACCESS CONTROLLED LOCK</th>
<th>LIFT LOCK</th>
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S-510-I GLAZING CHART

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<tr>
<th>POLYCARBONATE</th>
<th>GLASS OR PANEL</th>
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<tbody>
<tr>
<td>A</td>
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*Obscure glass thickness
**Laminated glass thickness
A - Available glazing option
I - Internal blinds can be used with this type of dual glazing
Blank - N/A

Note: Based on NFRC 100. Job specific performance ratings may vary due to differences in glass and glass spacer selection. If NFRC certified ratings are required, EFCO recommends requesting a CMA Bid Report at the bid stage from EFCO’s Product Technical Support Group to ensure performance will meet project specifications.

Some size restrictions may apply depending on hardware selected.
* Casements requiring roto operators will be furnished with lift locks, providing vents meet minimum width requirements.
** Pole ring pull will be furnished on project-out vents when optional pole ring cam handle is selected.
O - Optional
S - Standard
Blank - N/A

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Series 510
2 7/16" Architectural Grade Projected Window

Main Frame Construction
The frame is constructed from .125" nominal material wall thickness aluminum of 6063-T6 alloy with a depth of 2 7/16". An equal leg frame is standard. Corners are of screw spline construction and back sealed with a small-joint seam sealer. See Illustration 1.

Vent Frame Construction
The 2 7/16" deep vent consists of tubular aluminum members with .125" nominal material wall thickness of 6063-T6 alloy. Vent corners are mitered, angle-reinforced, crimped, cold epoxy welded, and back sealed with a small-joint seam sealer. See Illustration 2.

Weather Stripping
All vents are dual weather-striped with a dual durometer Santoprene® gasket. The exterior gasket is intentionally omitted at the vent bottom rail for project-out vents and at the vent top rail for project-in vents. This allows the air to pressure equalize the void between the vent and frame. Each vent utilizes the pressure equalization technique for superior water resistance. Two holes or slots per vent through the window frame facilitate weepage.

Screens
Screen frames are extruded 6063-T6 aluminum alloy. Full width hinged wickets or fully hinged screens are available. 18 x 16 mesh screens are available in fiberglass and .011" diameter aluminum. 18 x 18 mesh screens are available in .009" diameter stainless steel.

Thermal Barrier
All frames and vents are thermally isolated with two thermal struts consisting of glass reinforced polyamide nylon, mechanically crimped in raceways extruded in the exterior and interior extrusions. See Illustration 3.

Hardware
Locking cam handles, access controlled locks, and keepers are of cast white bronze in a US25D finish. 4-bar arms are fabricated from stainless steel meeting AAMA 904.1 requirements. Butt hinges are fabricated from extruded aluminum of 6063-T6 alloy with stainless steel pins. See Hardware Chart for available hardware types.

Glazing
Windows are inside glazed with an extruded aluminum snap-in glazing bead. Glazing of 3/16" to 2" can be accommodated. Dual glazing is also available in 1/8" and 1/4" glass. Between the glass aluminum blinds are available with dual glazed windows. See the Glazing Chart for the exact size.