

SUN WINDOWS & DOORS | COMMERCIAL APPLICATIONS

PATRIOT CLAD VINYL CASEMENT

The commercial-grade performance of thermally broken aluminum — at a fraction of the cost. Engineered for multi-family, senior living, hospitality, and mixed-use projects where energy codes, aesthetics, and budget all matter.

0.17

U-VALUE
(BEST CONFIGURATION)

CR 80

CONDENSATION RESISTANCE
(BEST CONFIGURATION)

AAMA

2604 & 2605
FINISH SPECIFICATION

R-5.88

MAXIMUM
R-VALUE

**Since
1979**

AMERICAN
MANUFACTURER

WHY SPECIFY PATRIOT

OUTPERFORMS THERMALLY BROKEN ALUMINUM

For decades, thermally broken aluminum has been the default specification for commercial casement windows. The Patriot Clad Vinyl Casement changes that equation — delivering superior thermal performance, equal structural ratings, storefront-matching aesthetics, and a significantly lower installed cost. It is the specification that satisfies your energy consultant, your architect, your glazing contractor, and your owner's budget — simultaneously.

PERFORMANCE CRITERIA	PATRIOT CLAD VINYL CASEMENT	THERMALLY BROKEN ALUMINUM	STANDARD ALUMINUM
Best-in-Class U-Value	0.17 (triple glaze)	0.28–0.35 typical	0.45–0.60 typical
Best R-Value	R-5.88	R-2.9–3.6 typical	R-1.7–2.2 typical
Condensation Resistance	CR 80 (NFRC rated)	CR 45–60 typical	CR 20–35 typical
AAMA 2604/2605 Finish	✓ Standard	✓ Available	✓ Available
Storefront Color Match	✓ Full palette + metallics	✓ Limited	✓ Limited
Vinyl Interior (reduced condensation risk)	✓ White or Black	✗ Aluminum interior	✗ Aluminum interior
Structural Performance	✓ Equal to TB aluminum	✓	✓
Installed Cost vs. TB Aluminum	Significantly Lower	Baseline	Lower
Maintenance (exterior)	✓ No painting required	✓ No painting required	Periodic refinishing

"The Patriot delivers what every commercial project demands: energy code compliance, a clean aluminum storefront aesthetic, and a cost structure that works for ownership. It is the rare product that checks every box without compromise."

SUN WINDOWS & DOORS — COMMERCIAL SPECIFICATION TEAM

NFRC CERTIFIED PERFORMANCE DATA

BUILT FOR ENERGY CODE. DESIGNED TO EXCEED IT.

Every Patriot Casement is NFRC certified and tested to meet or exceed IECC and ASHRAE 90.1 commercial energy code requirements across all climate zones. With U-values as low as 0.17 and condensation resistance ratings up to CR 80, the Patriot outperforms thermally broken aluminum on every thermal metric that matters to your energy consultant and building envelope engineer.

<h2>0.17</h2> <p>BEST U-VALUE (TRIPLE GLAZE) NFRC Certified</p>	<h2>R-5.88</h2> <p>BEST R-VALUE (TRIPLE GLAZE) NFRC Certified</p>	<h2>CR 80</h2> <p>CONDENSATION RESISTANCE (BEST CONFIG) NFRC Rated</p>	<h2>0.14</h2> <p>BEST SHGC (LOW-E TRIPLE) NFRC Certified</p>
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REPRESENTATIVE PERFORMANCE VALUES — CASEMENT (SELECTED CONFIGURATIONS)

GLASS CONFIGURATION	U-VALUE	R-VALUE	SHGC	VT	CR
DG — 270 #2 / Clear (3/4" IG)	0.26	3.85	0.25	0.46	62
DG — 366 #2 / Clear (3/4" IG)	0.26	3.85	0.18	0.43	63
DG — 270 #2 / i89 #4 (3/4" IG)	0.23	4.35	0.24	0.45	49
DG — Clear / E180 #3 (3/4" IG)	0.26	3.85	0.46	0.52	62
TG — 270 #2 / Clear / Clear (1.375" IG)	0.21	4.76	0.23	0.42	72
TG — 366 #2 / Clear / Clear (1.375" IG)	0.21	4.76	0.17	0.39	72
TG — 270 #2 / Clear / E180 #5 (1.375" IG)	0.17	5.88	0.22	0.41	80
TG — 366 #2 / Clear / E180 #5 (1.375" IG)	0.17	5.88	0.17	0.38	80

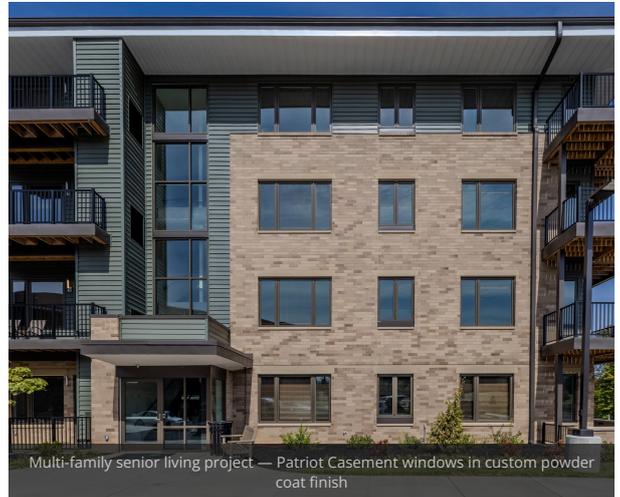
Full NFRC performance data available at sunwindows.com/pdf/PerformanceValues_Patriot_Casement.pdf | DG = Double Glaze | TG = Triple Glaze | IG = Insulating Glass Unit | Values updated 2/5/2025

STOREFRONT-GRADE FINISHES

ALUMINUM AESTHETICS. VINYL PERFORMANCE.

The Patriot's extruded aluminum exterior accepts the same powder coat finishes specified for commercial storefront and curtainwall systems — giving architects and designers the ability to achieve a unified, cohesive facade without the thermal penalty of all-aluminum construction.

Sun's powder coat process meets AAMA 2604 (high-performance) and AAMA 2605 (superior performance) specifications — the same standards required for commercial aluminum fenestration. Metallic, anodized-look, and custom color matches are available, enabling seamless integration with adjacent storefront, curtainwall, and entrance systems.



Multi-family senior living project — Patriot Casement windows in custom powder coat finish

POWDER COAT FINISH SPECIFICATION

Sun's extruded aluminum extrusions are powder coated to meet or exceed AAMA 2604 and AAMA 2605 performance requirements. The finish system provides exceptional resistance to UV degradation, chalking, fading, and corrosion — maintaining color consistency across large commercial installations for the life of the building. Metallic finishes, anodized-look coatings, and custom RAL/Sherwin-Williams color matches are available to coordinate with any storefront system.

AAMA 2604

AAMA 2605

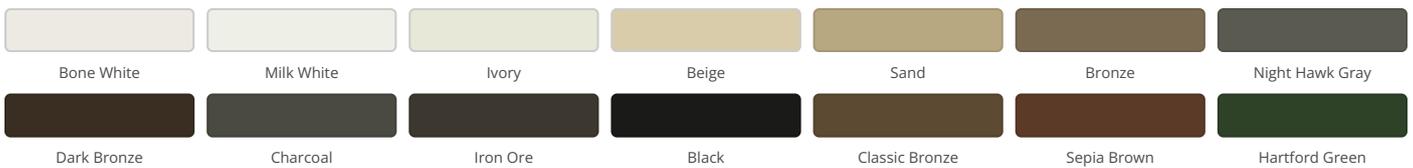
METALLIC FINISHES

ANODIZED LOOK

CUSTOM COLOR MATCH

STOREFRONT COORDINATION

STANDARD FINISH COLORS



TEXTURED FINISH COLORS



METALLIC FINISH COLORS



Swatches are simulations only — not exact color matches. Contact Sun Windows for physical samples. Custom color matching available.



WHITE VINYL INTERIOR

Clean, maintenance-free white vinyl interior. Ideal for standard commercial and residential applications. No painting required — ever.



BLACK FILM INTERIOR

Black film over white vinyl — coordinates seamlessly with matte black aluminum exterior. Delivers a true black aluminum storefront look throughout.

CONTRACTOR & SPECIFIER REFERENCE

BUILT FOR THE FIELD. SPECIFIED FOR THE OFFICE.

PRODUCT DIMENSIONS

Available Widths (Unit)	16", 20", 24", 28", 30", 32", 36"
Available Heights (Unit)	32", 36", 40", 48", 52", 59", 64", 72", 78"
Standard Jamb Depth	2-9/16"
Jamb Extension Options	4-9/16" or 6-9/16"
Glazing Unit — Double	3/4" IG unit
Glazing Unit — Triple	1.375" IG unit

HARDWARE & FINISH OPTIONS

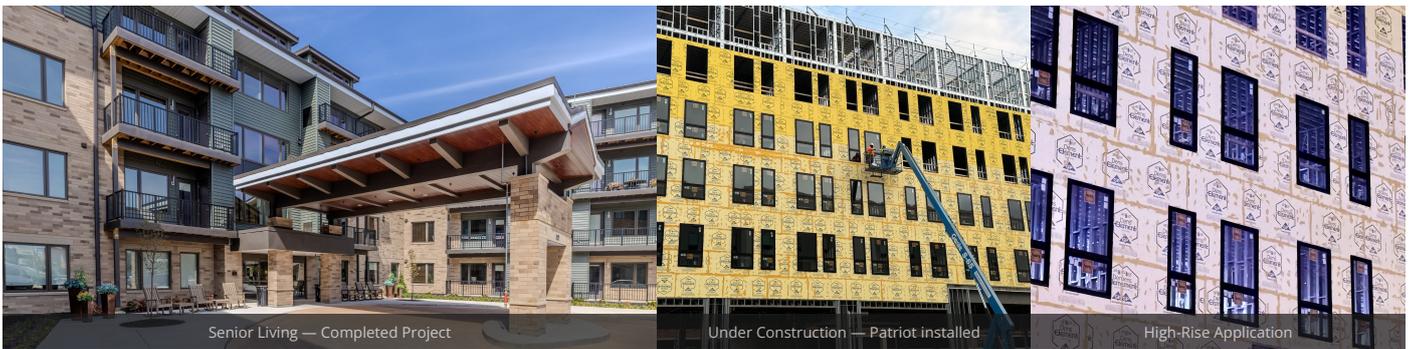
Standard Hardware	White, Tan, Dark Bronze, Black
Upgrade Hardware	Brushed Chrome, Brushed Nickel, Antique Brass, Polished Brass
Exterior Finish Spec	AAMA 2604 / AAMA 2605
Grille Options	SDL — Simulated Divided Lite
Screen	Interior-mounted insect screen

CONSTRUCTION

Exterior Frame	Extruded aluminum, powder coated
Interior Frame	Vinyl (white or black film)
Thermal Break	Vinyl frame — inherent thermal barrier
Glass Spacer	Duralite™ warm-edge spacer
Operation	Crank-out casement, multi-point lock
Hinge System	Top & bottom pivot; L or R hand

INSTALLATION & WATER MANAGEMENT

Nailing Fin	Integral — stronger installation, no separate fin required
Water Management	Sun Water Management System — no trapped water
Flashing Compatibility	Standard commercial WRB & flashing systems
Mulling	Available — contact factory for configurations
Project Types	Multi-family, senior living, hospitality, mixed-use



READY TO SPECIFY THE PATRIOT?

Request submittal documents, performance data, and project pricing from your Sun Windows [Find a Dealer](#) | [Request Specs](#) | [Commercial Projects](#)

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