

# MODEL 245T (THERMAL CENTER SET) ALUMINUM STOREFRONT SYSTEM



SCAN



## Unlocking Design & Efficiency with Capitol 245T Storefront

The Capitol 245T Thermal Storefront System redefines energy efficiency and aesthetic versatility for commercial and architectural projects. Engineered with precision, this advanced system meets modern demands for high-performance building solutions, offering uncompromising design flexibility and structural integrity.

Ideal for low-rise and interior installations, the 245T features an innovative pour and debridge thermal break. This solution delivers superior insulation, significantly enhancing comfort, reducing energy costs, and aligning with modern sustainability goals by ensuring consistent indoor temperatures.

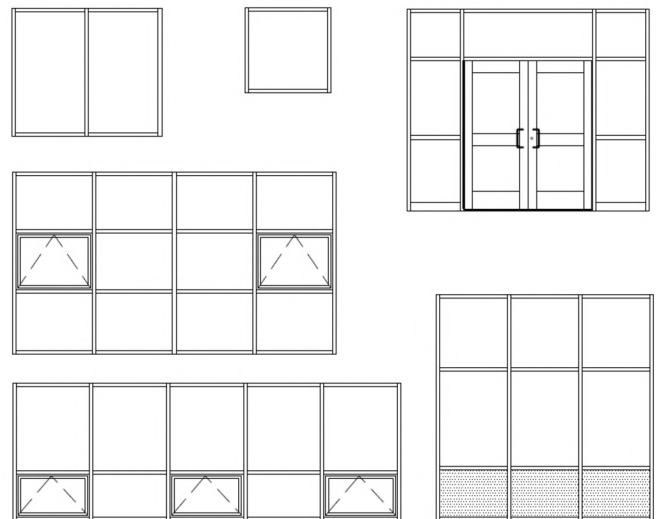
## Warranty Protection

We stand behind the quality of our products with comprehensive warranties. Our focus on reliability and longevity help minimize contractor callback and ensure long-term customer satisfaction.

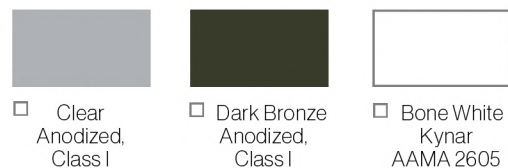


- Storefront - 3 years
- Anodize - 5 years
- Kynar 2605 - 10 years

## Versatile Design Possibilities



## Frame Finish Color Selections



\* Custom color selections available upon request.



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## VERSATILE STOREFRONTS FOR EVERY BUSINESS

Discover the true potential of your commercial project. The Capitol 245T Thermal Storefront delivers distinct advantages, designed to enhance your building's performance and maximize your investment.



### Reduced Energy Consumption

Our advanced pour and debridge thermal break minimizes heat transfer, contributing to lower operational costs and consistent indoor temperatures.



### Enhanced Occupant Comfort

Experience quieter interior environments where indoor temperature is comfortably maintained, thanks to superior thermal insulation and an impressive STC rating of 41, contributing to increased comfort and productivity for building occupants.



### Long-Lasting Durability & Reliability

Enjoy exceptional longevity and robust performance of the 2" x 4-1/2" thermally broken frame, expertly engineered to withstand demanding conditions and provide years of reliable service.



### Complete Design Versatility

Achieve a genuinely tailored appearance by adding Capitol doors, operable window inserts, integral blinds, and insulated panels.





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## TECHNICAL SPECS + HIGHLIGHTS

### MATERIAL STANDARDS

Extruded aluminum framing members are made from ASTM B 221, 6063-T5 alloy and temper. Trim metal is extruded aluminum with a minimum wall thickness of 0.060".

### THERMAL BREAK

Features a pour and debridge thermal break system, with rigid thermal break isolators to prevent contact between exterior and interior aluminum members.

### GLAZING GASKETS

Glazing gaskets are replaceable, compression-type, molded or extruded EPDM, designed to provide a watertight seal. The system is center glazed and accepts 1/4" or 1" glazing infill.

### UNIFORM LOAD

A static air design load of 40 psf is applied in the positive and negative direction. Deflection will not exceed  $L/175$  of the clear span of any framing member at design load. At structural test load (1.5 times the design load), no glass breakage or permanent set exceeding 0.2% of clear spans will occur.

### WATER & AIR RESISTANCE

The system includes internal weep and drainage to the exterior to manage water. It is designed to provide weather-tight construction.

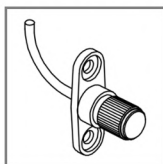
### FABRICATION

The system supports versatile fabrication methods, including screw spline, shear block, stick, or punched opening fabrication. Components are shop fabricated to minimize field cutting and splicing.

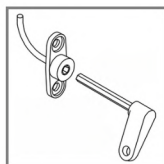
### OPTIONAL INTEGRATIONS

The system is designed for integration with other Capitol products, including FRP, flush, and stile aluminum doors, window inserts, and integral blinds.

### STANDARD BLIND OPERATORS



☐ Blind Knob



☐ Removable Key

**2" X 4 1/2"  
NOMINAL  
DIMENSION**

Center-set, accepts  
1/4" and 1" glazing  
infill thickness

Pour and debridge  
thermal break

### OPTIONAL BAP (BLIND ACCESS PANEL):

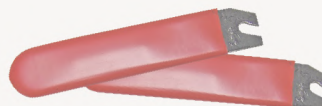
Hinged sash with integrated  
5/8" horizontal mini-blinds  
and 1/4" tempered glass

A gear-drive  
system  
operates the  
blinds; no  
magnets or  
strings

T-slot foam  
provides  
airtight seal,  
keeps out  
dust

Standard  
blind  
operator

Custodial maintenance access  
using (2) blind sash operating tools



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## TEST RESULTS SUMMARY



= Structural Test



= Performance Test

### ARCHITECTURAL TESTING PERFORMED

**ASTM E 283-04:** Determines the rate of air leakage through exterior products under specified pressure differences across the specimen.

**ASTM E 330-02:** A test method for the structural performance of exterior products by uniform static air pressure difference.

**ASTM E 331-00:** A test method for the water penetration of exterior products by uniform static air pressure difference.

**AAMA 1503-09:** Measures the thermal transmittance (u-value) and condensation resistance of fenestration products. This test uses a hot box and cold box to simulate different temperatures, and is the basis for the NFRC ratings.

SUMMARY OF RESULTS	TEST METHOD
Air Infiltration <0.1 L/s/m <sup>2</sup> (<0.01 cfm/ft <sup>2</sup> )	ASTM E283 
Design Pressure +/- 2400 Pa (+/- 50.13 psf)	ASTM E330 
Uniform Load Structural Test Pressure +/- 3600 Pa (+/- 75.19 psf)	ASTM E330 
Water Penetration 580 Pa (12.11 psf)	ASTM E331 
Thermal Transmittance U-Factor: 0.44	AAMA 1503-09 
Condensation Resistance Factor - Frame (CRFf): 49	AAMA 1503-09 
Condensation Resistance Factor - Glass (CRFg): 61	AAMA 1503-09 

### NFRC 100/200/500 COMPUTER SIMULATION (OTHER MAKEUPS AVAILABLE)

**NFRC 100/200/500:** A computer simulation test method that measures a product's energy performance (U-Factor, SHGC, VT, CR) based on computer simulations. It uses NFRC standards (100 for U-Factor, 200 for SHGC/VT, and 500 for Condensation Resistance) to ensure accurate ratings.

**U-Factor (U-Value):** The U-factor measures how well a product prevents heat from escaping. A lower U-factor means better insulation.

**Solar Heat Gain Coefficient (SHGC):** The SHGC indicates how much solar heat is let in. A higher SHGC means more heat gain. This is affected by glazing, number of panes, and coatings.

**Visible Transmittance (VT):** VT measures how much visible light passes through a product. A higher VT allows more daylight. Coatings and extra glass layers can reduce VT.

**Condensation Resistance (CR):** The CR measures the ability of a product to resist condensation on its interior surface. A higher CR means a better resistance to condensation.

GLAZING INFILL	U- FACTOR	SHGC	VT	CR
<b>1" Clear SB60 #2 IGU</b>	<b>0.40</b>	<b>0.35</b>	<b>0.62</b>	<b>40</b>
Add Argon Gas	0.36	0.35	0.62	41
Add 1/4" Clear Tmp BAP	0.30	0.30	0.51	41
Add Argon Gas + BAP	0.28	0.30	0.51	41
<b>1" Bronze SB60 #3 IGU</b>	<b>0.40</b>	<b>0.29</b>	<b>0.37</b>	<b>40</b>
Add Argon Gas	0.36	0.29	0.37	41
Add 1/4" Clear Tmp BAP	0.30	0.24	0.31	41
Add Argon Gas + BAP	0.28	0.24	0.31	41
<b>1" Gray SB60 #3 IGU</b>	<b>0.40</b>	<b>0.27</b>	<b>0.31</b>	<b>40</b>
Add Argon Gas	0.36	0.26	0.31	41
Add 1/4" Clear Tmp BAP	0.30	0.22	0.26	41
Add Argon Gas + BAP	0.28	0.22	0.26	41

**ASTM E 90:** Measures how effectively a building component reduces the transmission of airborne sound.

**ASTM E 413-10:** Calculates the Sound Transmission Class (STC) rating from test data to classify a product's sound insulation. A higher STC rating indicates better sound insulation.

**ASTM E 1332-10a:** Calculates the Outdoor-Indoor Transmission Class (OITC) rating, which measures how well a component reduces exterior noise. A higher OITC rating means better noise reduction.

GLAZING INFILL	STC	OITC
<b>1" Laminated IGU</b>	<b>37</b>	<b>31</b>
Add 1/4" Clear Tmp BAP	44	34



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## EXPLORE THE POSSIBILITIES



SCAN

### Explore Our Website for Additional Capitol Manufactured Products!



#### THE CAPITOL ADVANTAGE: YOUR PARTNER IN BUILDING SUCCESS

##### Decades of Expertise:

Leveraging extensive experience in architectural aluminum and glass to deliver proven, reliable solutions.

##### Uncompromising Quality:

Committed to superior craftsmanship and durable products that stand the test of time and performance demands.

##### Integrated Solutions:

Offering a full suite of seamlessly compatible systems for a unified building aesthetic and streamlined installation.

##### Performance Driven:

Engineering every product for exceptional thermal efficiency, structural integrity, and long-term value.

##### Dedicated Partnership:

Providing comprehensive support from initial design concepts through meticulous installation for every project.

##### Customization Capabilities:

Tailoring solutions to meet unique project specifications and help bring your precise design visions to life.



<https://www.capitol-windows.com>



#### WINDOWS

Discover quality and customization in our diverse range of window systems. Whether your project demands energy savings or unique aesthetics, our windows provide the perfect fit for the owner's specific architectural needs and long-term value.



#### ENTRANCES

Create impactful and secure entrances with Capitol's versatile door systems. Designed for diverse commercial applications, our doors offer a blend of style, durability, and security, backed by expert project support ensuring the best long-term solution for the building owner.



#### STOREFRONTS

Make a powerful first impression with Capitol's high-performance storefront solutions. Engineered for both stunning aesthetics and lasting durability, our systems seamlessly integrate with our window and door products, enhancing the building's appeal and long-term value for the owner.



#### CURTAIN WALLS

Unleash your design potential with our versatile and sustainable curtain wall systems. Designed for seamless integration and large-scale impact, our solutions offer exceptional thermal performance and weather protection, contributing to long-term energy savings and occupant comfort.