

# AA™ 6400/6500/6600 Thermal Window

The Comfort of Thermal Performance and Condensation Resistance in a Masterful Design



A window that keeps what's on the outside out, while maintaining occupant comfort on the inside is a valuable commodity. The AA™6400/6500/6600 Thermal Window delivers superior thermal and water performance and excellent condensation resistance while meeting the unique challenges of northern climates. A fusion of beauty, strength and functionality, the AA™6400/6500/6600 Thermal Window enhances any application – new and retrofit construction – while delivering architectural aesthetic appeal and ease of installation.

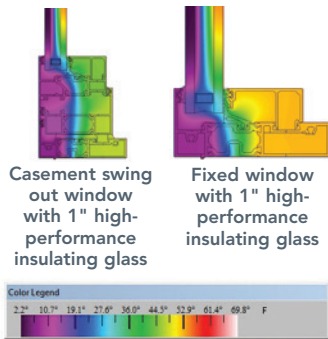
Ideal for new and retrofit construction, the AA™6400/6500/6600 Thermal Window enables the designer to leverage aesthetic options while maintaining the thermal integrity of the exterior façade. By employing high-performance polyamide thermal break technology, the window meets or exceeds the highest performance levels set forth by AAMA/WDMA/CSA 101/I.S.2/A440 (NAFS) for windows. With outstanding water performance, condensation resistance and thermal transmittance performance capabilities, the AA™6400/6500/6600 Thermal Window raises the standards for high-performing windows by maintaining occupant comfort on the inside while keeping what's on the outside out.

## Performance

The high-performing 4" (101.6 mm) deep AA™6400 Thermal Window, 5" (127 mm) deep AA™6500 Thermal Window and 6" (152.4 mm) deep AA™6600 Thermal Window achieve a superb condensation index (I value) and thermal transmittance (U-factor). The advanced design provides the ability to interface with air and vapor barriers to ensure the continuity of the seal at the window perimeter.

Additionally, the AA™6400/6500/6600 Thermal Window has a pressure-equalized cavity and a rain screen design that deters water infiltration. The window accommodates 1" (25 mm) or 1-3/4" (44.5 mm) insulating glass units combined with a polyamide thermal break for enhanced thermal performance. The structural aspects of

**Thermal simulations show temperature variations from exterior/cold side to interior/warm side of AA™6400 Thermal Window.**



**Casement swing out window with 1" high-performance insulating glass**

**Fixed window with 1" high-performance insulating glass**

the product are also enhanced through the polyamide thermal break connecting the exterior portion of the frame to the interior portion. This technology permits composite action, thus achieving greater load resistance while still offering design flexibility. Additionally, the "top hat" accent feature of the AA™6500/6600 Thermal Window provides a deeper 5" and 6" frame for thicker wall construction and greater structural capability.

Since the window is made from aluminum, it will never rot, warp or buckle due to moisture and weather exposure. Because it attains outstanding condensation resistance, the window is ideal for healthcare and education applications where condensation and mold are significant concerns. Superior thermal efficiency also makes the window a good choice for buildings seeking Leadership in Energy and Environmental Design certification with the U.S. and Canadian green building councils.

Designed to perform above current North American testing standards, the AA™6400/6500/6600 Thermal Window has been fully tested and meets or exceeds the minimum requirements for architectural window performance class, including lifecycle testing.

## Performance Test Standards

Windows are tested in accordance with CSA A440 and AAMA/WDMA/CSA 101/I.S.2/A440-08 (NAFS).

Air Infiltration	ASTM E283
Water	ASTM E331, E547
Structural – Uniform Wind Load	ASTM E330
Thermal Cycling	AAMA 501.5
Thermal Transmittance – U-Factor	AAMA 1503, 507; NFRC 100
Condensation Resistance (CRF, I, CR)	AAMA 1503; CSA A440.2; NFRC 500
Solar Heat Gain Coefficient (SHGC)	
Visible Transmittance (VT)	AAMA 507; NFRC 200
Sound Transmission (STC, OITC)	ASTM E90, E1425; AAMA 1801

\* Test results available from Kawneer.  
Contact your Kawneer sales representative for more information.

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## Fabrication and Installation

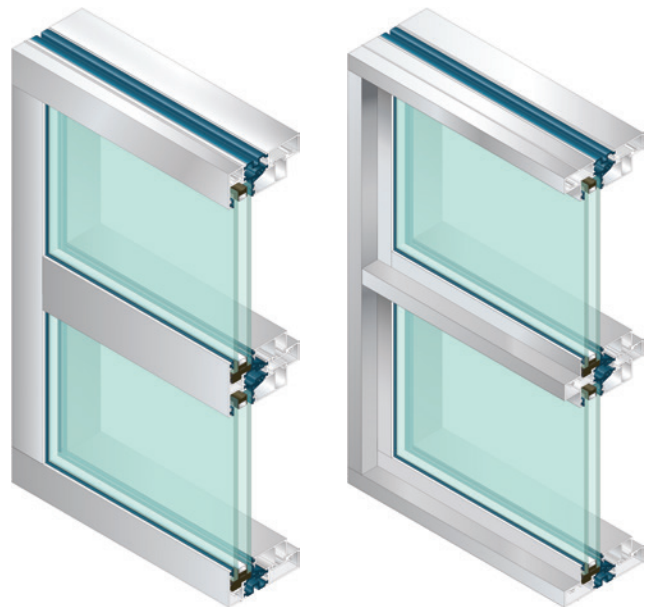
This window is perfect for punched and strip openings. A specially designed coupling mullion allows the windows to be installed in a multi-modular strip application. The framing systems can accommodate both projected and casement vents. Additionally, the projecting and casement vents can be installed into 1600UT System™1 Curtain Wall.

The window is interior glazed, which allows for easy glazing and reglazing in the field – an added benefit in cold climates.

## Aesthetics and Design Options

Kawneer's AA™6400/6500/6600 Thermal Window offers the versatility in design and the high performance required for today's building applications. Whether it is the overall flush appearance provided by the AA™6400 Thermal Window with its extreme frontal placement of glass or the distinctive "top hat" accent feature of the AA™6500/6600 Thermal Window, beauty never has to be sacrificed for functionality.

The operable vents have 45° mitered corners, which give the window a smooth and attractive appearance. A dual color option offers the flexibility to vary interior and exterior finishes, enabling designers to coordinate and accent multiple environments. Stylish hardware options include Euro-groove multipoint locking, roto operators, cam handles, pole rings, access control locks and stainless steel 4-bar hinges or concealed hinges.



The AA™6400 Thermal Window features a flush appearance.

The AA™6500 Thermal Window with "top hat" accent feature provides added strength and interest to the sightline.

