



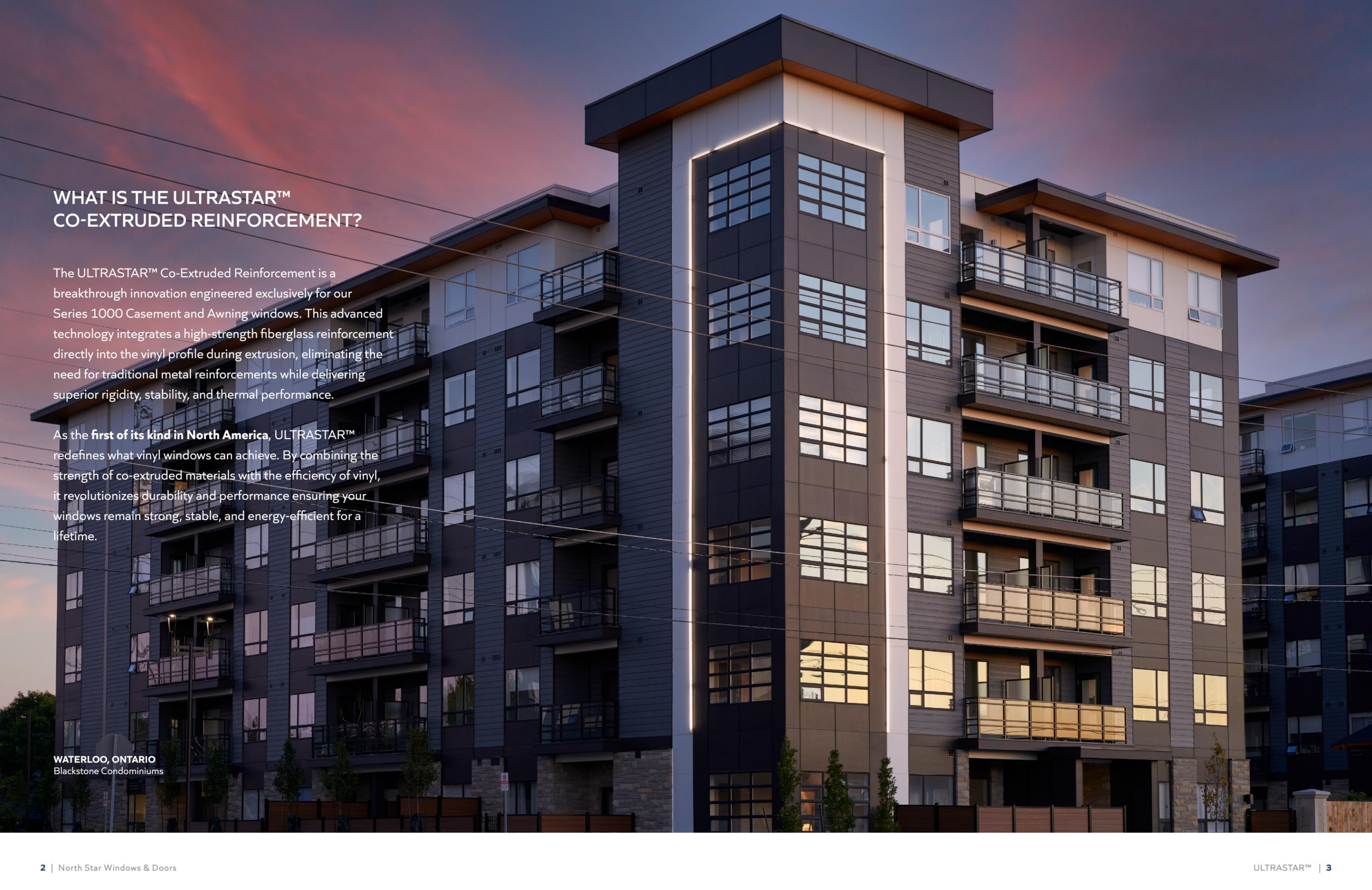
NORTH STAR
WINDOWS & DOORS

ULTRASTAR™
Series 1000 Windows



QUALITY WINDOWS & DOORS. GREAT SERVICE. EXCEPTIONAL VALUE.

northstarwindows.com



WHAT IS THE ULTRASTAR™ CO-EXTRUDED REINFORCEMENT?

The ULTRASTAR™ Co-Extruded Reinforcement is a breakthrough innovation engineered exclusively for our Series 1000 Casement and Awning windows. This advanced technology integrates a high-strength fiberglass reinforcement directly into the vinyl profile during extrusion, eliminating the need for traditional metal reinforcements while delivering superior rigidity, stability, and thermal performance.

As the **first of its kind in North America**, ULTRASTAR™ redefines what vinyl windows can achieve. By combining the strength of co-extruded materials with the efficiency of vinyl, it revolutionizes durability and performance ensuring your windows remain strong, stable, and energy-efficient for a lifetime.

WATERLOO, ONTARIO
Blackstone Condominiums

WHY INCLUDE ULTRASTAR™ IN VINYL WINDOWS?

Because strength, stability, and efficiency should come standard. ULTRASTAR™ reinforcement gives our casement and awning window sashes unmatched rigidity, thermal performance, and long-term reliability, without the weight or thermal loss of traditional metal reinforcements.

1 RAW MATERIAL

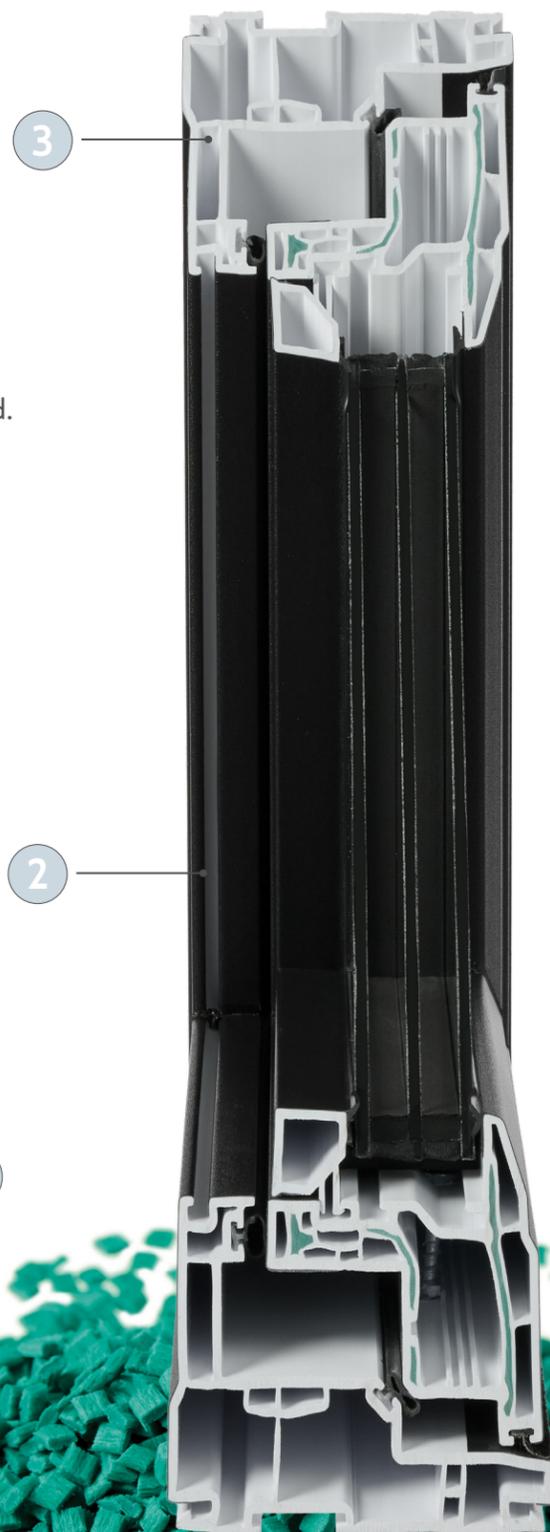
ULTRASTAR™ uses a partially crystalline saturated polyesters comprised of 55% fiberglass content, designed to replace steel in vinyl profiles. It delivers high stiffness, strength, and dimensional stability.

2 DARKER PROFILE PERFORMANCE

Dark-coloured profiles can shrink, warp, or distort with heat. ULTRASTAR™ keeps sashes true to form by minimizing expansion and contraction.

3 THE ULTRASTAR CO-EXTRUSION

ULTRASTAR™ is co-extruded directly into the vinyl frame, eliminating the need for metal reinforcement, and creating a stronger, lighter, and more efficient window structure.



Casement Cross-Section
Midnight Black Fusion Colour Wrap™

NORTH STAR BELIEVES THAT MATERIALS MATTER.

Because true performance starts from the inside out. We've redefined what vinyl windows can achieve by bringing advanced material science to vinyl windows, creating strength you can see, and quality you can feel, season after season.

BUILT FOR EVERY SEASON

Engineered to resist warping and shrinking even through North America's toughest temperature swings.

STRONGER BY DESIGN

Fiberglass-reinforced technology delivers superior strength and stability that lasts a lifetime.

ENGINEERED FOR EVERY COLOUR

Built for every finish, with added protection that helps darker profiles maintain their shape in high heat.

Tested in temperatures reaching 82°C (180°F) without moving, shrinking or warping.

Made in compliance with ASTM D4726 Section 7, Subsection 72.



CASEMENT + PICTURE + CASEMENT
Midnight Black Exterior

Project Winsor — EC Design + Build | Stevenson Building Products
Cobourg, Ontario

The Next Generation of Vinyl Windows

Windows made with ULTRASTAR™ are built to perform in every season. Reinforced from within, they're stronger and more stable than traditional vinyl windows. Whether facing intense summer heat or frigid winter cold, ULTRASTAR™ keeps your windows true to form — preventing warping, shrinking, or movement over time. The result is a window that not only looks great, but delivers lasting comfort, energy efficiency, and peace of mind year after year.



QUALITY MATERIALS

Crafted from premium virgin vinyl PVC, enjoy superior strength, weather resistance, and lasting performance in any climate.



TRUSTED COVERAGE

Every vinyl window is backed by a transferable Limited Lifetime Warranty, providing peace of mind coverage you can count on.



DURABLE LAMINATES

Our Fusion Colour Wrap™ laminates are scratch and abrasion resistant, delivering vibrant, UV-stable finishes that won't chip, peel, or fade.

THE ULTRASTAR™ REINFORCEMENT.

TEMPERATURE RESISTANCE

With a 55% glass fiber composition, profiles made with ULTRASTAR™ effortlessly resist heat-induced warping, shrinking, and distortion, even at temperatures reaching as high as 82°C (180°F). The result is a stronger, more stable profile that maintains its shape and performance through years of exposure to heat, cold, and environmental stress.



Co-Extruded Reinforcement



55% Glass Fiber Content

EXPANSION MEASUREMENT

ULTRASTAR™

0.3

ASTM D4726

THE INDUSTRY STANDARD FOR ALLOWABLE SHRINKAGE (2.2)

2.2



Interior View Cross-Section

BUILT FOR LASTING PERFORMANCE

ULTRASTAR™ reinforced windows are lighter, stronger, and engineered to maintain its shape and performance for a lifetime, ensuring your windows stay true and reliable season after season.



CASEMENT WINDOW



Exterior View
Espresso Fusion Colour Wrap™

CASEMENT COMPOSITION

Hinged at the side, casement windows open wide for full ventilation and provide a sleek look with exceptional performance and standard multi-point locking.

CASEMENT FEATURES

- ▶ ULTRASTAR™ Co-Extruded Reinforcement
- ▶ Standard Multi-Point Locking Hardware
- ▶ Design Pressure Rating up to DP70
- ▶ Heavy Duty Anti-Glare EZ-Screen
- ▶ Edgetech S-Class Super Spacer®
- ▶ Fusion Welded Multi-Chamber Frame



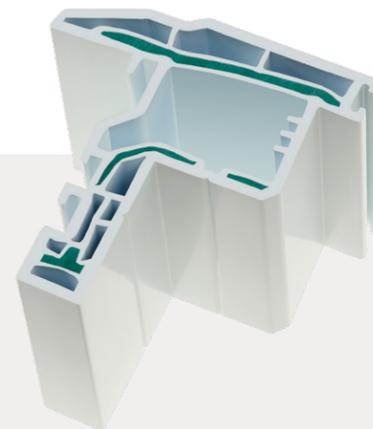
ULTRASTAR™
Reinforcement



Dual-Pane
Standard



Tri-Pane
Optional



THE FIRST OF ITS KIND

For decades, vinyl window sashes have relied on metal for strength. ULTRASTAR™ changes that. Through advanced co-extrusion, we've engineered a sash that's lighter, stronger, more thermally efficient and resistant to condensation.

AWNING WINDOW



Interior View
Midnight Black Fusion Colour Wrap™



Exterior View
Sable Fusion Colour Wrap™

AWNING COMPOSITION

Hinged at the top, awning windows swing outward to allow ventilation even during light rain, combining function with energy efficiency.

AWNING FEATURES

- ▶ ULTRASTAR™ Co-Extruded Reinforcement
- ▶ Standard Single-Point Locking Hardware
- ▶ Heavy Duty Anti-Glare EZ-Screen
- ▶ Edgetech S-Class Super Spacer®
- ▶ Fusion Welded Multi-Chamber Frame



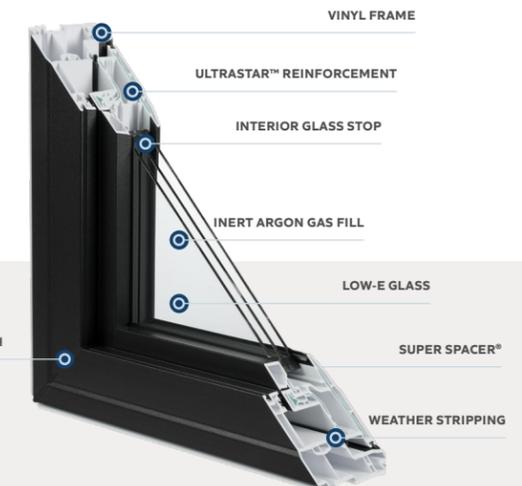
ULTRASTAR™
Reinforcement



Dual-Pane
Standard



Tri-Pane
Optional



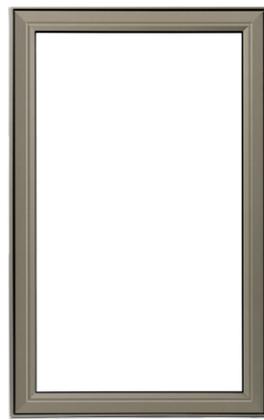
DIMENSIONAL STABILITY

Profiles made with ULTRASTAR™ have been tested in extreme temperatures reaching as high as 82° C (180° F) without moving, shrinking or warping, ensuring long-term stability in varying climates and conditions.

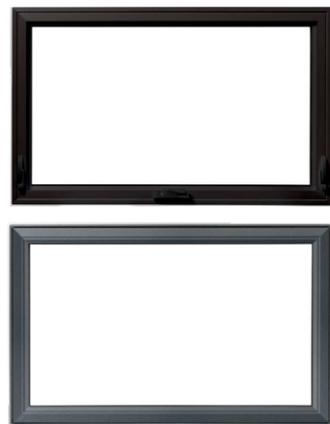
SERIES 1000 WINDOWS



AWARD-WINNING SERVICEBERRY MODEL
 New Build by Tobey Developments | Vanderlaan Building Products
 Brighton, Ontario



Casement



Awning



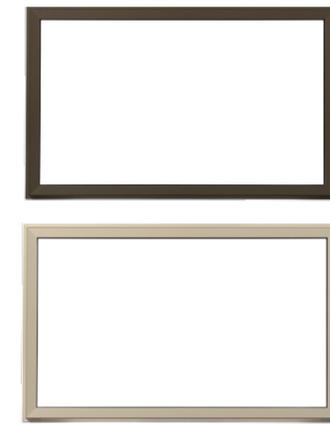
Single Hung



Double Hung



Single & Double Slider



Fixed Picture

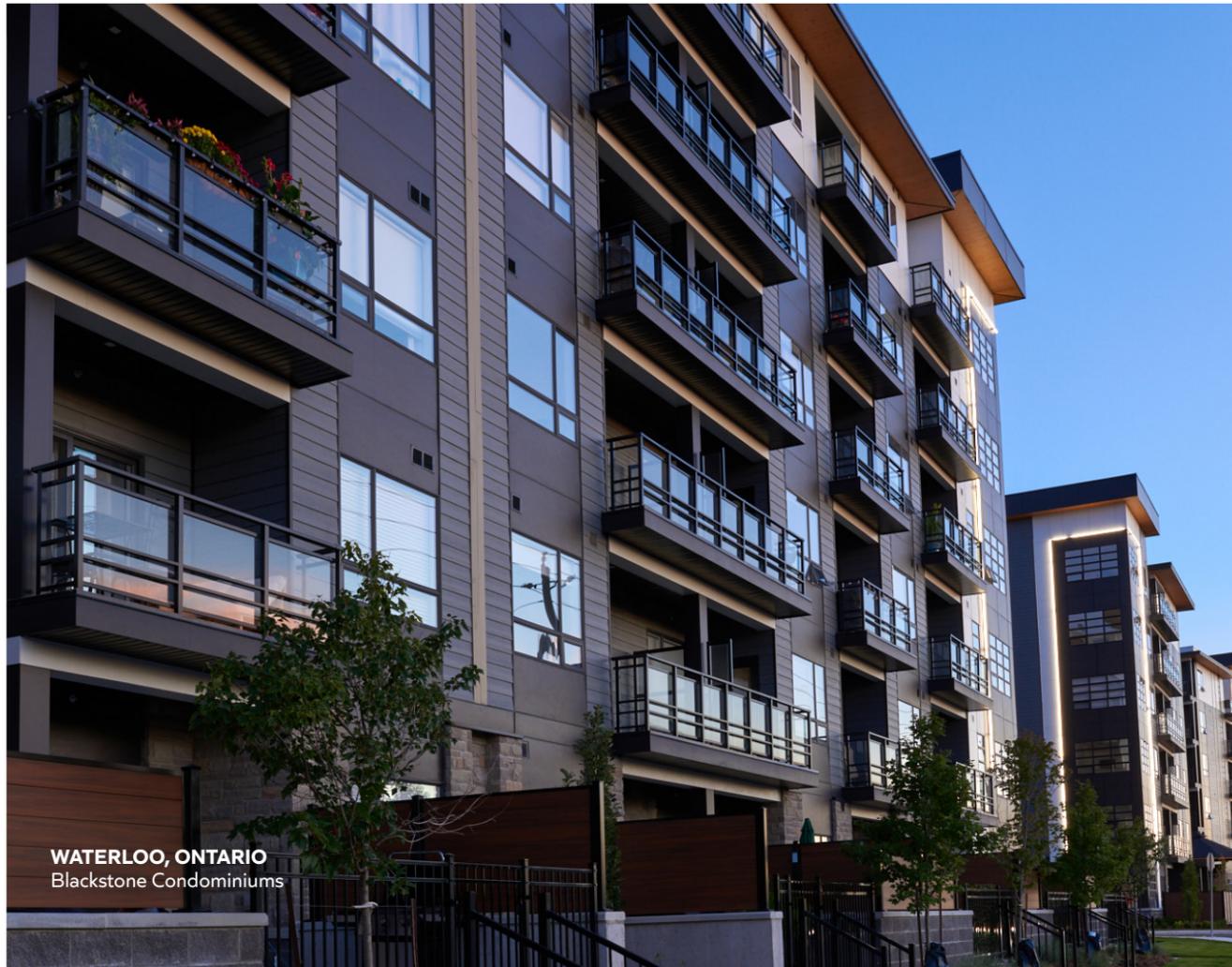


Bay & Bow



Custom Shaped

UltraStar™ reinforcement is integrated into the sash of North Star casement and awning windows only and is not included in other window styles unless noted.



WATERLOO, ONTARIO
Blackstone Condominiums

Built to Meet Commercial Window Standards

Commercial window (CW) ratings are held to significantly higher performance requirements than residential and light commercial (R&LC) testing. ULTRASTAR™-reinforced windows are engineered and tested to meet these stricter standards, including limits on deflection under load, durability during repeated operation, and performance during extreme exposure conditions.

Unlike residential testing, commercial testing evaluates how a window performs not only when closed, but also while fully open, applying loads to hinges, operators, and sash components to ensure long-term reliability.

PRODUCT TYPE	SIZE TESTED	PERFORMANCE GRADE	STRUCTURAL	WATER	AIR
1171 Casement	914 x 1829 (36" x 72")	CW-PG70	3360 Pa (70.18 psf)	720 Pa (15.04 psf)	0.12
1173 Awning	1524 x 1016 (60" x 40")	CW-PG35	1680 Pa (35.09 psf)	720 Pa (15.04 psf)	0.15
		LC-PG45	2160 Pa (45.11 psf)		0.15

All testing was performed by UL Laboratory Canada Inc. under applicable NAFS standards to AAMA/WDMA/CSA 101/I.S.2/A440-22 (NAFS-2022)

UltraStar™ delivers commercial confidence, long-term durability, and thermal efficiency — all in one integrated solution.

WHAT A CW RATING MEANS FOR YOUR PROJECT

The CW classification confirms that ULTRASTAR™-reinforced windows are suitable for mid-rise and commercial exposure conditions, where higher wind loads, open terrain, and elevated building heights increase structural demands.

This allows dealers, builders, and architects to confidently specify North Star windows on projects requiring higher performance, while reducing service risk related to deflection, water infiltration, and long-term durability.

TYPICAL APPLICATIONS

- ▶ Schools + Educational Facilities
- ▶ Mid-Rise Condominiums + Rental Apartments
- ▶ Healthcare Facilities
- ▶ Office Buildings
- ▶ Retail Plazas
- ▶ Coastal, Open-Terrain, + Elevated Developments



PROVEN COMMERCIAL PERFORMANCE

The validated CW-PG70 rating of the 1171 Casement confirms that UltraStar reinforcement delivers commercial-grade structural performance while maintaining superior thermal efficiency compared to steel-reinforced systems.



UltraStar™ delivers commercial confidence, long-term durability, and thermal efficiency — all in one integrated solution.

WHY ULTRASTAR OUTPERFORMS

By integrating glass fiber reinforced materials directly into the PVC profiles, UltraStar delivers a step-change in performance:

- ▶ Up to 5x Greater Stiffness
- ▶ Reduced Thermal Expansion
- ▶ Elimination of Steel Thermal Bridging
- ▶ Lighter Weight
- ▶ Fully Integrated Reinforcement
- ▶ Certified Commercial-Grade Performance

ACOUSTIC PERFORMANCE

The ULTRASTAR™ reinforcement also supports strong acoustic performance across glazing options:

- ▶ Double Glazed (3mm): **STC 29**
- ▶ Triple Glazed (3mm): **STC 31**
- ▶ Triple Glazed (4mm): **STC 32**

Optional STC-enhanced glass configurations can add up to **4 additional STC points**, making ULTRASTAR™-reinforced windows ideal for urban, multi-family, and noise-sensitive environments.

ASTM E90 — Sound Rating



To go beyond minimum requirements, North Star subjected UltraStar™ reinforced windows to additional testing not typically required.

THERMAL CYCLING (AAMA 501.5)

Pushed beyond required standards, our windows underwent rigorous thermal cycling from -18°C to +82°C, with full air, water, and operational testing conducted.

OPERATIONAL CYCLING

Casement windows were cycled 10,000 times, equivalent to 27 years of daily use, validating smooth and reliable operation over years of daily use in accordance with AAMA 904 & 901.

AUXILIARY LOAD TESTING

Loads were applied while windows were fully open, verifying the strength of hinges, operators, and sash connections under real-world stress.

SASH VERTICAL DEFLECTION

With specified loads of 270 N applied according to NAFS-22 to the top of an open sash, deflection remained under 2%, and the sash returned to its original position, confirming structural resilience without permanent deformation.

FORCED ENTRY RESISTANCE

Tested to Grade 40 (ASTM F588-07), demonstrating enhanced resistance to forced entry.

DESIGNED TO SUPPORT GUARD LOAD REQUIREMENTS

With the proper glazing options and hardware selection, the UltraStar window can comply to the toughest guard load requirement, where an additional 1KN point load is applied in addition to wind load.

UltraStar reinforcement significantly improves structural stability, giving projects a stronger margin of safety when guard load and deflection requirements must be met simultaneously.



northstarwindows.com

North Star Windows & Doors
40684 Talbot Line
St. Thomas, ON
N5P 3T2



Scan the QR Code
or Visit Us Online at
northstarwindows.com

The strong relationship we have with our various manufacturing partners has helped us maintain our reputation for leadership, innovation and the production of windows and doors of impeccable quality.



ULTRASTAR™