

ALUMINUM | IMPACT

-Jeff T. Jackson, President & Chief Operating Officer

Engineered to perform. It's a phrase we use a lot when we talk about our WinGuard® impact-resistant windows and doors. It's also a phrase we say with confidence because these products are engineered to meet the toughest hurricane codes in the nation. And because we've seen them perform, both in our test lab and in the "real world", where more than three million units have been installed and zero impact failures have been reported.

But the benefits of our flagship product line go beyond just hurricanes. WinGuard also protects against outside noise, break-ins, UV rays and high energy bills. Plus you get the backing of PGT®, a company engineered to deliver. PGT has one of the largest (and best) design teams in the industry. We oversee every part of the manufacturing process—even the glass processing—at our own plant, to ensure the highest quality. We ship on-time, as promised, using our own fleet of trucks. And we offer 360° service—providing support before, during and after the sale.

With all these benefits, it's easy to see why PGT® WinGuard® is the best-selling brand of impact-resistant windows and doors in America.

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GLOSSARY OF TERMS





No more expensive shutters. No more ugly plywood. No more backbreaking work.

Effortless Hurricane Protection™

With clean, sleek and aesthetically pleasing lines—all for about the price of shutters and ordinary windows, combined.

PGT® WinGuard® Aluminum products feature:

- Heavy-duty, extruded aluminum frames
- Mechanically-fastened corners
- Corrosion-resistant hardware and fasteners with stainless-steel options
- Laminated glass
- Powder-coat paint
- ETERNA® Finish options

WinGuard is the best choice for protecting your home, the people and items in it, and its outward appearance. But don't take our word for it. Homeowners just like you have made WinGuard the best-selling impact-resistant brand in the U.S.

To know our products is to know our promise

PGT® is the authority on impact-resistance. Our expertise is founded from our collaboration with Miami-Dade County to establish testing protocols for impact-resistant products. As a result of this partnership, in 1996 PGT became the first manufacturer to offer a full-suite of impact-resistant windows and doors that are – to this day – among the strongest, safest, and most reliable products in the industry.

From design to delivery, we oversee every step in our manufacturing process to ensure unsurpassed quality in every product we make. Our reputation is built on our dedication to providing superior materials, service and results to your project for a difference you can count on.



WinGuard is America's leading impact-resistant window and door brand with over 3 million products installed—and zero reported impact failures.











Performance testing

You can have confidence in PGT® products. Our windows and doors are tested, relentlessly, to confirm that they meet the exacting standards of the industry's most-respected accredited organizations. These certifications are your guarantee of quality and your assurance that PGT stands behind the products we manufacture.

PGT® WinGuard® Aluminum product certifications, ratings and testing include:

- Miami-Dade Notice of Acceptance
- Florida Product Approval
- International Building Code
- ENERGY STAR®
- National Fenestration Rating Council® (NFRC)
- STC (Sound Transmission Class)

See the Glossary of Terms for more details on each of these certifications and testing protocols.

Designed for strength

PGT invests hundreds of hours testing our windows and doors to ensure that they will perform at their optimum level for many years to come.

Each PGT WinGuard Aluminum window and door is designed to meet or exceed the International Building Code for:

- Air infiltration
- Deglazing
- Structural integrity
- Water resistance
- Forced-entry resistance
- Small and large missile impact protection





WinGuard Aluminum windows and doors combine laminated glass with heavy-duty frames to provide you and your family with superior protection from high winds and flying debris.

Engineered to meet hurricanes head-on

When storms threaten, your home is protected without lifting a finger. PGT® WinGuard® Aluminum products feature laminated glass, which is comprised of two panes of glass bonded together with a strong, clear interlayer for effortless impact-resistance.

PGT WinGuard products also eliminate the need for unsightly, hard-to-install shutters – saving you valuable storage space, time, energy, and money, while improving your home's curb appeal.

Superior protection backed by a superior warranty

PGT® operates on the premise that promises are made to be kept, which is why our WinGuard® Aluminum products are backed by one of the best warranties in the industry.

WinGuard Aluminum products include:

- A 10-year warranty on the frame and laminated glass unit
- Limited lifetime warranty on the insulating glass unit





WinGuard® blocks 99% of UV rays, reduces outside noise and deters residential intruders—all in addition to the effortless hurricane protection it's known for.

Whether you are home or not, you are protected

PGT® WinGuard® impact-resistant windows and doors provide effortless protection against hurricane-force winds and flying debris throughout hurricane season. But that's not all. That strong interlayer and durable frame provide other benefits you'll welcome all year long, including:

- Security against vandals, thieves and intruders
- Dramatic noise reduction
- 99% reduction in the fading of products inside your home caused by UV light
- Improved energy efficiency

Our impact-resistant aluminum products also contribute to reduced insurance premiums. Contact your insurance provider to see if you qualify for discounts.

Maximize energy efficiency

PGT WinGuard energy-saving options include:

- Laminated insulating glass which provides an additional layer of insulation between the inside and outside of your home
- High-Performance Low-E to deflect solar heat gain and keep unwanted heat outside your home
- Glass Tints that are effective at reducing heat transmitted through your windows
- Argon Gas which helps reflect outside heat and regulate the temperatures inside your home



Built to your specifications

No two projects are the same. That's why each PGT® WinGuard® Aluminum window and door we make is tailored to the exact specifications of your home. You can be assured that the final product will meet our strict standards of quality. Your satisfaction—and your safety—are our top priorities.

Selections to fit your style

PGT WinGuard Aluminum windows and doors are a perfect fit for any home, including yours, with choices of:

- Frame colors
- Glass tints
- Grid styles and patterns
- High-performance Low-E
- Privacy glass
- Sea Turtle Protection Code glass options



WINGUARD® ALUMINUM

What PGT® WinGuard® means to you



During a hurricane, flying debris can shatter the glass in regular windows and doors, resulting in wind and water damage inside your home. WinGuard Aluminum products can withstand repeated impact from a nine-pound 2' x 4' beam traveling at 34 miles per hour, followed by hurricane-force winds. Even if the glass is damaged, it will remain secure in its frame and continue to keep the elements outside.



Constant exposure to the sun's UV rays can dramatically fade your furnishings. The clear interlayer used in WinGuard Aluminum products filters 99% of these UV rays, helping your furniture, carpet, artwork and drapes retain their original beauty.



Breaking a window is the most common means of entry for an intruder. While non-impact resistant glass shatters easily upon contact and offers little resistance, the durable interlayer used in WinGuard Aluminum products will keep the glass in place and provide an additional barrier that deters intruders.



Noise outside your home is often something you have little control over. However, with WinGuard Aluminum windows and doors, the laminated glass significantly reduces ambient noise by absorbing sound rather than transmitting it, which keeps outside disruptions where they belong.



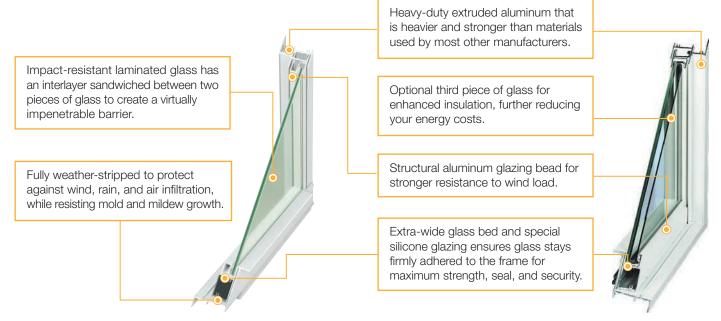


Laminated Glass

Single Pane Glass

Glass Type Comparison

Glass breakage patterns can vary greatly depending on the treatment and construction of the glass used in a window or door. WinGuard® Aluminum products include laminated glass which may crack if impacted, but will keep the glass pieces adhered to the laminate and secure in the frame. Conversely, single pane annealed glass will fracture into large shards and will not be held in the frame after breaking.



WINGUARD® ALUMINUM BENEFITS

Beautiful windows are just the beginning

PGT® WinGuard® Aluminum products do more than just beautify your home – they offer an all-in-one solution for continuous, effortless protection from:

- Hurricane damage
- Intruders
- Outside noise
- UV rays

The high-quality materials used in our signature line of aluminum products include:

- Laminated glass that eliminates the need for hurricane shutters or plywood
- Heavy-duty extruded aluminum that is heavier and stronger than materials used by most other manufacturers
- Mechanically fastened corners that increase the strength of the overall product
- Corrosion-resistant hardware that will stand up to even the harshest coastal environments

ETERNA® finish

When wood is a primary design element used throughout your home, PGT's ETERNA Finish provides an authentic wood look to complement those attributes without sacrificing the strength and durability of aluminum. Even in the harshest coastal environments where conditions are unwelcoming to wood frames, ETERNA Finish can perform.

PGT's ETERNA Finish:

- Uses a marine-grade powder coating that provides long-lasting protection
- Is available in authentic reproductions of four popular wood grains
- Adds beauty and warmth in a low-maintenance option

The ETERNA process results in a wood grain finish that outperforms wood frame alternatives, providing you with the protection of WinGuard and the beauty of wood.

Powder-coat paint finish

When it comes to paint finishes, not all processes are created equal. PGT® WinGuard® Aluminum products come standard with a powder-coat paint finish that provides:

Color Retention

- Finish is naturally resistant to fading and wearing
- Withstands exposure to natural elements

Quality

- Identical color from batch to batch
- Single-pass application ensures a uniform coat
- Thicker, stronger coatings eliminate runs and drips

Durability

- Resistant to scratching and corrosion
- Tested to continuously withstand salt water, heat, light and moisture exposure

Low Environmental Impact

- Finish is 100% solvent-free
- No VOCs or heavy toxic metals

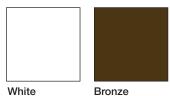
GRID STYLES & PATTERNS



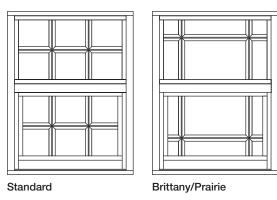
Standard Features

Products in this series come standard with clear laminated glass and a white or bronze frame that is ideal for new construction and remodeling projects. Operable windows also include a screen with 1816 mesh.

Standard Frame Colors



Grid Patterns



Premium Options

Glass

- Tempered glass
- Heat-strengthened glass
- Laminated insulating glass
- Privacy glass
 - Obscure (textured for enhanced privacy)
 - White Interlayer (opaque interlayer for enhanced privacy)
- Popular glass tints
- High-performance Low-E
 - EnergyShield
 - EnergyShield Max
- Argon gas

Frame Colors



ETERNA® Finishes



*Available for select styles only. Ask your dealer for more details.

GRID STYLES & PATTERNS



Series 700 Window Grid Styles



Raised / Flat Grids

- 1" wide raised muntin applied to exterior
- 1" wide flat bar applied to interior



Raised / Low Profile Ogee

- 1" wide raised ogee applied to exterior
- 1" wide low profile ogee applied to interior



Flat Bar

- 1" wide flat bar applied to exterior
- 1" wide flat bar applied to interior



Flat Grid

• 9/16" wide flat grid between the glass



Series 700 Door Grid Styles



Raised / Flat Grid

- 1" wide raised muntin applied to exterior
- 1" wide flat bar applied to interior



Raised / Raised

- 1" wide raised muntin applied to exterior
- 1" wide raised muntin applied to interior



Raised / Low Profile Ogee

- 1" wide raised ogee applied to exterior
- 1" wide low profile ogee applied to interior



Raised / Raised Ogee

- 1" wide raised ogee applied to exterior
- 1" wide raised ogee applied to interior



Flat Grid

• 9/16" wide flat grid between the glass



Low Profile Simulated Divided Lite Grids

- 1" wide low profile ogee applied to exterior and interior
- 9/16" wide flat grid between the glass



Traditional Simulated Divided Lite

- 1" wide raised ogee applied to exterior and interior
- 9/16" wide flat grid between the glass

WINDOWS



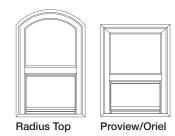
Single Hung (SH700)

Pre-tensioned spiral balance system

• Provides smooth, easy opening and closing

Integrated lift rails and deluxe swivel locks

• Allow easy fingertip operation





Horizontal Roller (HR710)

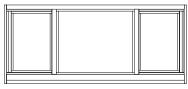
Available in 2- and 3-lite configurations

Low-friction brass tandem rollers in a nylon housing

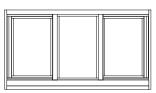
• Provide smooth, durable, adjustable operation

Removable sash design

• For easy exterior cleaning



Unequal Lite



Equal Lite



Casement (CA740)

Available in various configurations

- Single unit hinged for opening either left or right
- Double unit hinged for opening: one left, one right
- Triple unit hinged for opening: one left, one right, fixed center unit

Multi-point locking system

• Provides added strength and security

Egress hinge standard

Optional washable hinge

• For easy cleaning from inside the home

Optional fold away handle

• Will not interfere with your window treatments

Awning (AW740)

Available in single vent

 Individual vent units can be mulled vertically or horizontally for custom configurations

Multi-point locking system

• Provides added strength and security





WINDOWS



Picture Window / Fixed Lite Architectural (PW/AR720)

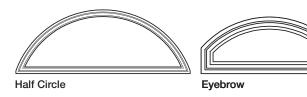
Available in a variety of shapes & sizes

- Provides maximum amount of light
- Can serve as standalone or companion window

Installation covers

• For a complete, clean appearance

Popular Fixed Lite Architectural Shapes





Arch Trapezoid

Casement Picture Window (CA740)

Available in a variety of sizes

- Provides maximum amount of light
- Can serve as standalone or companion window
- To be used in conjunction with the Casement or Awning window for matching sight lines

Installation screw covers

• For a complete, clean appearance



DOORS



Preferred Sliding Glass Door (SGD770)

Expansions of up to 40 feet

• Amazing, uninterrupted views and a great source of natural light

Panels up to 4' x 10' or 5' x 8'

• Sizes available for every opening

By-pass, pocket, and 90-degree or 135-degree corner door configurations

• Customizable with multiple tracks from 2 to 8 panels

Dual-point locking mechanism

• Provides added security for your home by restricting panels from being lifted off the tracks

Heavy-duty tandem rollers

• Allow easy opening with just your fingertips

Hidden installation and assembly screws

• Deliver a sleek, finished appearance

Raised pull handles or recessed pulls available

Optional screens available

• Standard or box screen



DOORS



Premium Sliding Glass Door (SGD780)

French door-look

- Standard 4" bottom rail
- Optional 9" bottom rail

Expansions of up to 40 feet

• Amazing, uninterrupted views and a great source of natural light

Panels up to 4' x 12' or 5' x 10'

• Sizes available for every opening

By-pass, pocket, and 90-degree or 135-degree corner door configurations

• Customizable with multiple tracks from 2 to 8 panels

Dual-point locking mechanism

 Provides added security for your home by restricting panels from being lifted off the tracks

Heavy-duty tandem rollers

• Allow easy opening with just your fingertips

Optional unique, stylish handles available

Optional screens available

• Standard or box screen



Essential French Door (FD101H)

Pre-hung

• Available as a single or a double door

Heavy duty hinge

Allows easy operation

Optional side lites available

 Beautifully fills large openings and provides additional light

Concealed 2-point locking system

• Provides added strength and security

Prepped for industry-standard hardware

 Accommodates an array of handle and deadbolt hardware



Preferred French Door (FD750)

Heavy-duty, hidden piano hinge

- Supports the weight of the door
- Allows enduring optimal operation

3-point, stainless steel locking mechanism

• Secures the door to the frame or adjoining door in three places

Prepped for European-style hardware

• Trim-sets are available

Optional side lites

- Full jamb
- Narrow jamb



Glossary of Terms

Annealed glass: Standard sheet of float glass which has not been heat-treated.

Argon gas: A safe, odorless, colorless, non-toxic, non-flammable inert gas that is commonly used in place of air between the glass panes of an insulated Low-E glass unit to reduce temperature transfer.

Box screen: A heavy duty sliding glass door screen frame that simulates the actual glass panels. It is typically similar in size and shape to the glass door panels.

By-pass door: A sliding door that has two or more panels that can slide horizontally in either direction in upper and lower tracks.

Corrosion-resistant: Refers to how well a substance can withstand damage caused by oxidization or other chemical reactions.

Deglazing: An effect of severe weather on windows, where the silicone glazing bead separates from the window pane, thus reducing the window's ability to restrict water from entering the structure and decreasing the strength of the overall window.

Design pressure: Wind load pressure, usually expressed in pounds per square foot (psf). Equal to 2/3 of the Structural Test Load.

Dual-point mortise lock: A lock that is recessed in the edge of a stile and has two throw hooks that engage with a keeper.

ENERGY STAR®: An independent U.S. government program establishing a standard set of guidelines to recognize the energy efficiency of various products. ENERGY STAR® guidelines are used in conjunction with a variety of building materials, including windows and doors.

Florida Product Approval: A series of tests performed by a State of Florida approved testing lab to ensure certain building components meet Florida standards.

Forced-entry resistance: The test methods intended to establish a measure of resistance for window assemblies subjected to attacks, other than by impact.

Heat-strengthened glass: Glass that is reheated, after forming, to just below melting point, and then cooled, forming a compressed surface that increases its strength beyond that of typical annealed glass.

Impact-resistant: Shatter-resistant glass, when the outer glass breaks the shattered pieces will adhere to an intermediate layer of a shatter-proof membrane.

Insulating glass: Window panes separated by an air or other gas filled space to reduce heat transfer.

Interlayer: A shatterproof membrane sandwiched between two panes of glass.

International Building Code: A model building code developed by the International Code Council that has been adopted throughout most of the United States.

Laminated glass: Comprised of two panes of glass bonded together with a strong, clear interlayer.

Laminated Insulating glass: Comprised of three panes of glass: two panes bonded together with a strong, clear interlayer and one pane for added insulation.

Large Missile Impact: Test used on windows and doors in which a 9lb 2x4 traveling at 50ft per second is propelled at a speed of 34 mph into test subject.

Lift rail: A handhold for raising and lowering the sash. Rail implies that the handhold is continuous across the sash.

Low-E (Emissivity) glass: Glass with a transparent metallic oxide coating applied onto or into a glass surface. The coating typically allows short-wave energy to pass through but reflects long-wave infrared energy which improves the U-value.

Miami-Dade Notice of Acceptance: Protocol for testing windows for impact by large or small missiles.

National Fenestration Rating Council (NFRC): A nonprofit organization which provides energy performance ratings on windows, doors, skylights, and attachment products. Obscure glass: Glass that has been made translucent instead of transparent.

Pocket door: Sliding glass door that when opened slides clear of the opening.

Powder Coat Paint: A free-flowing, dry powder that is typically applied electrostatically. It is then cured under heat and used to create a hard finish that is tougher than conventional paint.

Sea Turtle Protection Code: Lighting ordinance to protect Sea Turtles along the Florida coastline during nesting season by restricting the amount of light permitted through windows and doors.

Sound Transmission Class (STC): The sound transmission loss rating of a material over a selected range of sound frequencies. The higher the number, the less sound is transmitted.

Small Missile Impact: Test used on windows where it has been exposed to various impacts with 10 ball bearings traveling at a speed of 80 feet per second (50 mph).

Tempered glass: Treated glass that is strengthened by reheating it to just below the melting point and then suddenly cooling it. When shattered, it breaks into small pieces. Approximately four times stronger than standard annealed glass; is required as safety glazing in patio doors, entrance doors, side lites, and other hazardous locations. It cannot be recut after tempering.

Ultra-violet (UV): The invisible rays of the spectrum that are outside of the visible spectrum at its short-wavelength violet end. Ultraviolet rays are found in everyday sunlight and can cause fading of paint finishes, carpets, and fabrics.

Washable hinges: Track type hinges on casement windows that, aside from normal operation, have the ability to slide towards frame center and allow for easy sash cleaning.

A TRADITION OF EXCEPTIONAL PRODUCTS, RELIABILITY, AND SERVICE

Founded in 1980, PGT® pioneered the U.S. impact-resistant window and door segment, growing from just four employees to approximately 1,700 at its manufacturing facility in Venice, Florida.

Today, PGT offers a total of nine different high quality window and door lines.

Hurricane protection, security against intruders, noise reduction, UV filtering, energy efficiency, affordability, and style are some of the most notable benefits that PGT's products have to offer.

When you choose PGT products for your home or business, you can always expect top design, improved energy efficiency and extraordinary strength for the life of your investment.

You can have the confidence that PGT will not just meet, but exceed your expectations.



