



OVERALL FEATURES

- 1 Pinch fusion-welding construction creates a solid, one-piece unit with no excess variance for long-term durability
- 2 Heavy-duty weatherstripping provides a barrier to air and water, saving energy dollars
- 3 Sloped sill with unique SilLock design ensures natural water runoff
- 4 Premium Series comes standard with the vinyl mainframe filled with patented R-Core® insulation (pre-expanded high-density solid polyurethane), the same type used in many refrigerator/freezer doors; for enhanced performance Premium Series Energy Package options feature the mainframe and sash filled with patented R-Core
- 5 Interforce II™ reinforced meeting rails on double hung and sliding windows with Premium Series Energy Package options feature internal structural fiberglass extrusions for reinforcement along with an integral interlocking system, providing unsurpassed strength and durability without conduction
- 6 Glass systems with Warm Edge (standard) or Warm Edge+ (optional upgrade) spacer systems and HP or HP_{MAX} glass package options (see page 6 for details) offer increased energy-efficiency
- 7 New Generation uPVC vinyl never needs painting or caulking and resists conducting heat and cold



A



Fusion-welded strength

B



R-Core® insulated frames and sash

C



Interforce II™ fiberglass-reinforced sash meeting rails

D

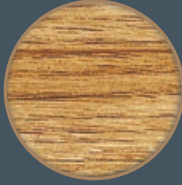


Warm Edge spacer (standard)

COLOR OPTIONS

GOLDEN OAK WOODGRAIN

INTERIOR



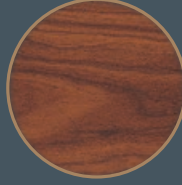
EXTERIOR



WHITE BEIGE EARTHTONE

COLONIAL CHERRY WOODGRAIN

INTERIOR



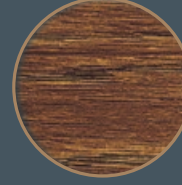
EXTERIOR



WHITE BEIGE EARTHTONE

NATURAL OAK WOODGRAIN

INTERIOR



EXTERIOR



WHITE BEIGE

WHITE

INTERIOR



EXTERIOR



WHITE BEIGE SANDSTONE EARTHTONE DARK BRONZE

BEIGE

INTERIOR



EXTERIOR



BEIGE

Colors are reproduced as accurately as printer technology allows. Please see your authorized Ply Gem Windows representative for actual samples.

SCREEN OPTIONS

Fiberglass mesh is the standard insect screening material used on all Ply Gem Windows replacement products with available half or full screens. This product provides good outward visibility and ventilation and will not rust, corrode or stain. Additional options available include:

ALUMINUM MESH

Provides added protection against aggressive regional insects that eat through normal fiberglass mesh. Charcoal finish reduces glare.

SOLAR BLOCK SCREEN

Blocks 70% of the sun's heat and glare. Keeps living spaces cooler, reduces energy costs and protects furnishings against fading.

OPTIMAL VIEWING SCREEN

Thinner fiberglass material allows maximum viewing while tighter mesh pattern keeps out tiny insects.

PET-RESISTANT SCREEN¹

Strong vinyl-coated polyester provides a screen seven times stronger than traditional insect screening with excellent outward visibility.

1. Doors only.

GRILLES-BETWEEN-THE-GLASS



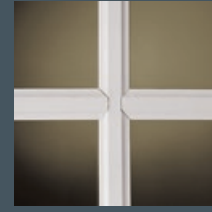
5/8" Flat Colonial



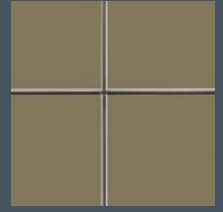
5/8" Flat Diamond



5/8" Flat Perimeter



1/16" Sculptured Colonial



Narrow Brass

CUSTOM DESIGNER WINDOW GLASS

Brighten your outlook with decorative options.

How do you make an endearing home absolutely exquisite? Add a spectacular accent, with custom designer glass. Designed and crafted by hand as fine decorative glass has always been, Premium Windows custom designer glass brings invaluable character and distinction to your home.



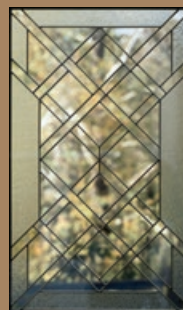
Star-beveled



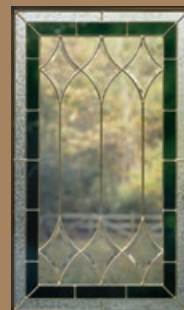
Ceylon



La Parisienne



Charlevoix



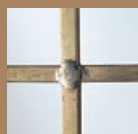
Bratenahl



Sheffield

Shown above is a small selection of the Custom Designer Window Glass options available.

Caming Color Options



Brass



Pewtertone (Patina)

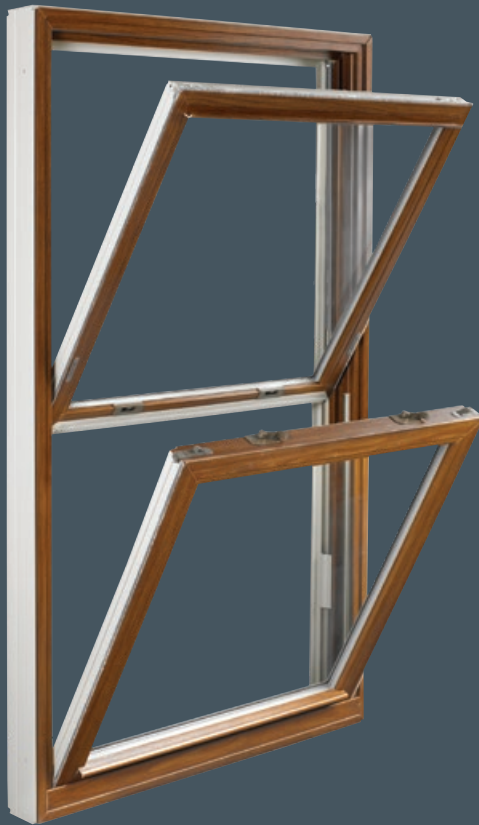


Zinc



FEATURES

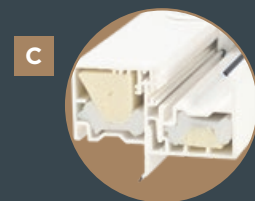
- 1 Fully fusion-welded New Generation uPVC vinyl sash and mainframe for extra strength and enduring beauty with SilLock design – featuring a sloped sill to keep windows dry while ensuring a weather-tight seal at sill
- 2 Meeting rails have integral interlock for a weather-tight seal and extra security
- 3 Fin and pile weatherstripping on both sash and mainframe for protection against air, dust and moisture
- 4 7/8" IGU glass systems offer energy-efficient Warm Edge standard and optional Warm Edge+ for improved performance
- 5 Triple weatherstripped check rail and sash ensures long-term performance
- 6 Ventilation limit latches for added security when windows are partially open; optional child safety vent latch available
- 7 Interforce II™ fiberglass reinforcement in the meeting rails for unsurpassed strength and durability with Premium Series Energy Package option
- 8 Two flush-mounted cam-action locks on windows over 25" wide
- 9 Top and bottom lift rail for ease of operation and both sash tilt-in for easy and safe cleaning of the exterior of window
- 10 Equal sight lines for traditional wood window aesthetics
- 11 Premium Series comes standard with the vinyl mainframe filled with patented R-Core® insulation (pre-expanded high-density solid polyurethane), the same type used in many refrigerator/freezer doors; for enhanced performance Premium Series Energy Package options feature the mainframe and sash filled with patented R-Core
- 12 Constant force balance system
- 13 Comes standard with aluminum extruded half screen with fiberglass mesh



A Flush-mounted cam-action locks



B Ventilation limit latches



C Interforce II™ fiberglass-reinforced sash meeting rails



D Ergonomically designed tilt-latch for ease of cleaning



E Top and bottom lift rail for ease of operation



F Optional child safety vent latch

1. Most double hung windows meet a Design Pressure (DP) rating of 50 (with Energy Package Upgrade).



FEATURES

- 1 Premium Series comes standard with the vinyl mainframe filled with patented R-Core® insulation (pre-expanded high-density solid polyurethane), the same type used in many refrigerator/freezer doors; for enhanced performance Premium Series Energy Package options feature the mainframe and sash filled with patented R-Core
- 2 Integral interlock with Interforce II™ reinforces the meeting rails for unsurpassed strength, warmth and durability with Premium Series Energy Package upgrade
- 3 Full-perimeter, high-performance weatherstripping provides maximum energy-efficiency
- 4 7/8" IGU glass systems offer energy-efficient Warm Edge standard and optional Warm Edge+ for improved performance
- 5 Fully fusion-welded New Generation uPVC vinyl sash and mainframe for extra strength and enduring beauty featuring a sloped sill to keep windows dry while ensuring a weather-tight seal at sill
- 6 Ventilation limit latch for added security when windows are partially open; optional child safety latch available



A

Flush-mounted cam-action locks



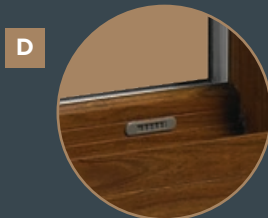
B

Left and right pull rails for ease of operation



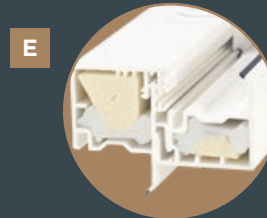
C

Optional child safety vent latch



D

Ventilation limit latches



E

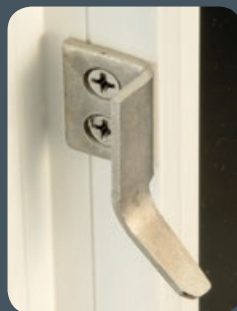
Interforce II™ fiberglass-reinforced sash meeting rails

1. Most sliding windows meet a Design Pressure (DP) rating of 45 (with Energy Package Upgrade).

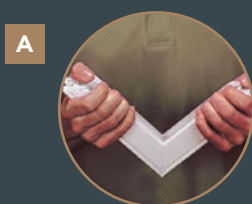


FEATURES

- 1 Premium Series comes standard with the vinyl mainframe filled with patented R-Core[®] insulation (pre-expanded high-density solid polyurethane), the same type used in many refrigerator/freezer doors; for enhanced performance Premium Series Energy Package options feature the mainframe and sash filled with patented R-Core
- 2 Fusion-welded frames and sash stay strong and in place for a lifetime of dependable performance
- 3 Easy-to-reach multi-point locking system provides increased security with a single conveniently located handle
- 4 Folding/nested operating handle standard
- 5 New Generation uPVC vinyl never needs painting or caulking and resists conducting heat and cold
- 6 Aluminum extruded screens with low profile retention clips
- 7 Upgrade casement windows with the optional Premium Series stainless steel hardware for protection against corrosion in coastal areas; this option includes the operator mechanism arms, sash brackets, hinges, snubbers, tiebars and keepers
- 8 ⁷/₈" IGU glass systems offer energy-efficient Warm Edge standard and optional Warm Edge+ for improved performance



Upgrade casement windows with the optional coastal hardware package.



A Fusion-welded strength



B Folding/nested operator handle



C Matching lock features a sleek operating design

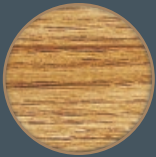
1. Most awning and operating casement windows meet a Design Pressure (DP) rating of 70 (gateway size of 24" by 60") and most fixed casement windows meet a Design Pressure (DP) rating of 45. 2. Optional.



Knee Braces

Pre-finished or Laminated Interior Options

GOLDEN OAK



NATURAL OAK



COLONIAL CHERRY



Solid Surface Seat Options



Cameo White



Beach



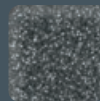
Sandstone



Dusk



Dark Brown



Black

FEATURES

- 1 Custom made to ensure a good fit in your home
- 2 Fusion-welded New Generation uPVC vinyl frames and sash for extra strength, dependable performance and enduring beauty
- 3 Available in casement or double hung styles to complement your architectural style or personal preference
- 4 Heavy-duty weatherstripping ensures a tighter seal
- 5 Bays & bows with double hung or casement style window configurations feature R-Core® insulation and Warm Edge or optional Warm Edge+ spacer system to help keep utility costs down
- 6 For bay or bow configurations with casement style windows, multi-point locking system secures the window in several locations simultaneously with a single handle
- 7 Pre-finished interiors are sealed for beauty and durability and available in golden oak, natural oak and colonial cherry
- 8 Laminated interiors available in three woodgrains and two solid colors: golden oak, natural oak, colonial cherry, white and beige



Support and Insulation Systems

(2) Cable Kits Standard

External Knee Braces

- 1 Provides exterior support for bay, bow and garden windows¹
- 2 Available in white, beige, earthtone and sandstone
- 3 Pre-finished to be maintenance free

¹ Required and included standard with garden window. Knee braces and cable system are required for bay/bow windows and are included with the window.

Superior Insulated Seats

- 1 Insulated with high-density polystyrene insulating board combined with a 3/4" exterior grade plywood surface – 3" overall thickness
- 2 R-Value of 7.6 – six times that of typical non-insulated bay/bow windows
- 3 Available in white or beige (earthtone units are clad with brown coil)





Knee Braces

Pre-finished Laminated Seats, Jambs and Heads are Available in White and Beige

WHITE



BEIGE



Solid Surface Seat Color Options



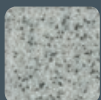
Cameo White



Beach



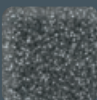
Sandstone



Dusk



Dark Brown



Black

Add custom style to your garden window (available for bays/bows also) by adding a solid surface seat available in six colors

Support and Insulation Systems

External Knee Braces

- 1 Provides exterior support for bay, bow and garden windows¹
- 2 Available in white, beige, earthtone and sandstone
- 3 Pre-finished to be maintenance free

Superior Insulated Seats

- 1 Insulated with high-density polystyrene insulating board combined with a 3/4" exterior grade plywood surface – 3" overall thickness
- 2 R-Value of 7.6 – six times that of typical non-insulated bay/bow windows
- 3 Available in white or beige (earthtone units are clad with brown coil)

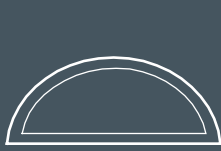


FEATURES

- 1 New Generation uPVC vinyl never needs painting or caulking and resists conducting heat and cold
- 2 Tempered glass interior shelf adds space for plants (standard on units under 50')
- 3 Operating trapezoid casement side panels feature easy-to-operate, easy-to-reach, multi-point locking system
- 4 Fusion-welded frames and sash for extra strength and dependable performance
- 5 Add custom style to your garden window (available for bays/bows also) by adding a solid surface seat available in six colors
- 6 Available in white, beige or earthtone color options on exterior and white on interior
- 7 Sloped top lite is only available with a dual pane insulated glass unit
- 8 7/8" IGU glass systems offer energy-efficient Warm Edge standard and optional Warm Edge+ for improved performance



¹ Required and included standard with garden window. Knee braces and cable system are required for bay/bow windows and are included with the window.



Half Round



Extended Half Round



Full Round



Quarter Round



Extended Quarter Round



Eyebrow



Extended Eyebrow



Quarter Eyebrow



Extended Quarter Eyebrow



Ellipse



Full Oval



Gothic Eyebrow



Extended Gothic



Octagon



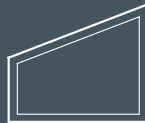
Extended Octagon



Hexagon



Extended Hexagon



Trapezoid Left or Right



Clipped Trapezoid



Pentagon



Pentagon Equilateral



Right Angle Triangle



Isosceles Triangle

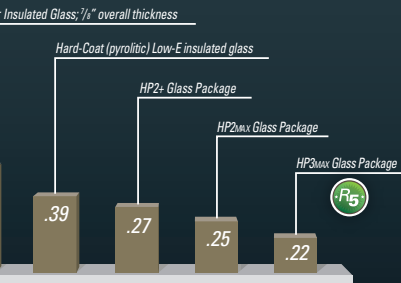
CUSTOMIZE YOUR VIEW

From the road and from within your home, windows tell a story. Every choice adds distinction: from the woodgrain or solid colors that surround each window to stylish hardware finishes. Ultimately, the story of your home is what you see through your eyes.

Premium Windows feature our two-color vinyl extrusion process allowing you design flexibility to match your exterior style with an easy to coordinate white interior.

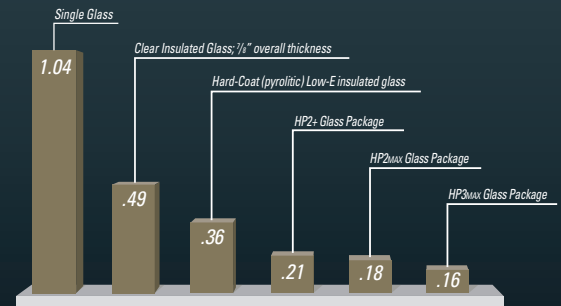
Now share your Premium Windows with the world.

COMPARISON — TOTAL UNIT — U-FACTOR



The lower the U-Factor the greater the insulation value. R-Value is the inverse (R=1/U) of the U-Factor. HP3max is certified to meet ENERGY STAR requirements. Based on double hung product style.

GLASS COMPARISON — CENTER OF GLASS — U-FACTOR

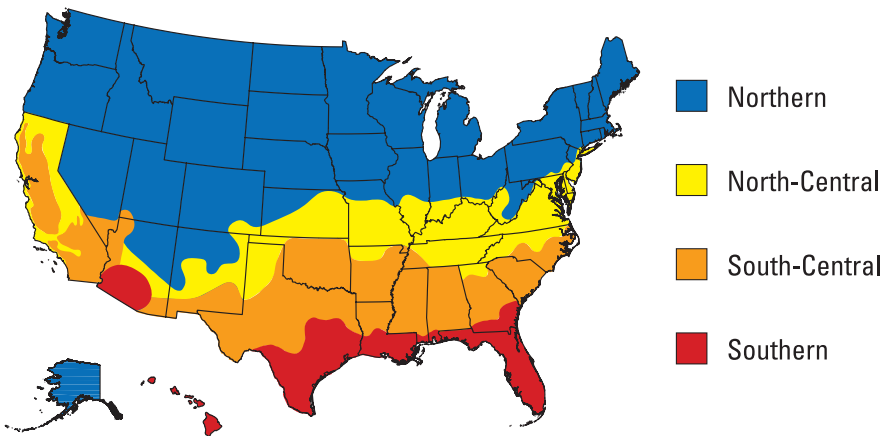


The lower the U-Factor the greater the insulation value. R-Value is the inverse (R=1/U) of the U-Factor. Center of glass factors calculated per Windows 5.2 simulation software (LBNL - Lawrence Berkeley National Laboratories).

ENERGY STAR® INFORMATION



ENERGY STAR® for Windows, Doors, and Skylights CLIMATE ZONE MAP



Ply Gem Replacement Premium Series windows and patio doors can be configured to meet a specific ENERGY STAR zone in all states. Your investment in ENERGY STAR products will pay for itself over time in reduced energy bills, as well as increase the comfort level inside your home.



Home Innovation
NGBS GREEN CERTIFIED

PLY GEM PREMIUM SERIES WINDOWS & DOORS HAVE BEEN GREEN APPROVED BY THE HOME INNOVATION RESEARCH CENTER.

This means you can be assured that Ply Gem Premium Series windows and patio doors comply with specific green practice criteria in the National Green Building Standard. Visit GreenApprovedProducts.com for more details.

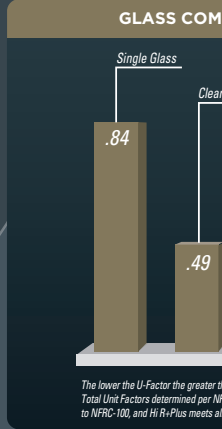
DESIGN PRESSURE (DP) RATINGS



Ply Gem Premium Series products are tested to meet the air, water and structure requirements of AAMA/WDMA 101/I.S.2. Our products meet a Design Pressure (DP) rating of 35 (double hung) to as high as DP70 (operating casement gateway size of 24" x 60").

With advanced level engineering and top-notch innovation, you are assured of the most durable, high-performing windows available nationwide.

Ask your Ply Gem Windows dealer or distributor for specific DP ratings for each Premium Series replacement style.



ENERGY PACKAGE UPGRADE OPTIONS



The Energy Package Upgrade options include the HP Glass Package (see page 6 for glass package options) of your choice with the addition of R-Core to the sash and frame. R-Core is a patented process utilizing pre-formed polyurethane insulation. In addition, Interforce II™ fiberglass reinforcement is placed in the meeting rails of double hung and slide windows providing DP50 and DP45 product ratings. The Energy Package options provide unsurpassed strength, durability and energy-efficiency.

LIMITED LIFETIME WARRANTY

One of Life's Few Guarantees.

Life comes with few guarantees. Fortunately, Premium Windows & Doors offer you a permanent solution. Our custom vinyl windows offer more than construction quality, unmatched energy-efficiency and low maintenance. They also offer a Limited Lifetime Warranty.

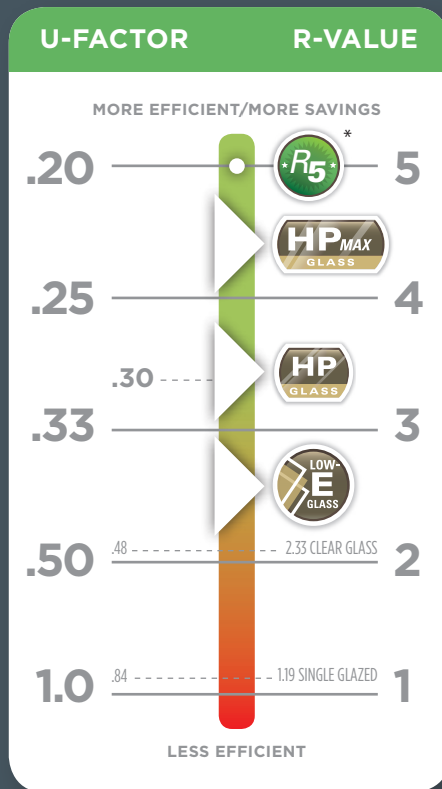
We believe so strongly in the durability of our windows that we back each window unit with our hassle-free Limited Lifetime Warranty. Lifetime means your windows are protected under the warranty for as long as you live in your home. And your warranty is transferable to the next homeowner, helping you protect your investment by increasing your home's resale value.

Wouldn't it be nice if you could feel so confident about everything you bought?



EXPLANATION OF GLASS PACKAGES

PERFORMANCE COMPARISON



The lower the U-Factor, the greater the insulation value. R-Value is the inverse ($R=1/U$) of the U-Factor. Total Unit Factors determined per NFRC-100 (National Fenestration Rating Council). Chart shows relationship between performance and Ply Gem Windows glass package options, not including energy package upgrade.

*Ply Gem Windows R-5 products meet or exceed a U-Factor of 0.20 on fixed units & 0.22 on operating units.



LOW-E GLASS PACKAGES

Our Low-E glass packages combine Low-E and Warm Edge spacer options, providing insulating glass options to meet your specific needs. Our Low-E glass packages provide better performance in regions with hot summers and cold winters. Our Low-E^{SC} (solar cooling) glass packages are optimized for regions with significant indoor cooling and glare reduction requirements. Our Low-E glass packages can be combined with capillary tubes to address performance needs in high elevation applications.

Low-E — One lite of Low-E

Low-E^{SC} — One lite of solar cooling Low-E

Low-E2[†] — One lite of Low-E and one lite of Interior Surface Low-E

Low-E2^{SC†} — One lite of solar cooling Low-E and one lite of Interior Surface Low-E

Low-E2^{MAX†} — Triple-pane with two lites of Low-E with an interior glass substrate

Low-E3^{MAX†} — Triple-pane with two lites of Low-E and one lite of Interior Surface Low-E

[†] These glass packages are combined with capillary tubes to address performance needs in high elevation applications.



HP GLASS PACKAGES

Our HP glass packages combine Low-E with argon gas fill and Warm Edge spacer options, providing high-performance insulating glass options to meet your specific needs. Argon is a safe, odorless, colorless gas, which is heavier or denser than air. When used in conjunction with Low-E glass, argon provides better insulation. That's because heat and cold do not pass through argon gas as easily as through air. Argon is nontoxic and presents no human health or environmental concerns. Our HP glass package is also available in a solar cooling (^{SC}) glass package for regions with significant indoor cooling and glare reduction requirements.

HP — One lite of Low-E and argon gas fill

HP^{SC} — One lite of solar cooling optimized Low-E and argon gas fill

HP2 — Two lites of Low-E with argon gas fill

HP2+ — One lite of Low-E and one lite of Interior Surface Low-E with argon gas fill



HP^{MAX} GLASS PACKAGES (triple-pane)

Our HP^{MAX} glass packages are triple-pane units that combine Low-E with two chambers of argon gas fill and Warm Edge spacer options, providing enhanced high-performance insulating glass options to meet your specific needs.

HP2^{MAX} — Triple-pane with two lites of Low-E with an interior glass substrate and two chambers of argon gas fill

HP3^{MAX} — Triple-pane with two lites of Low-E and one lite of Interior Surface Low-E and two chambers of argon gas fill



WHAT ARE R-5 WINDOWS?

High-performance R-5¹ windows are highly insulating windows with a whole-window R-Value of 5 (a U-Factor of around 0.2). Most of our Premium series products can be configured as R-5 units. These products are the top tier of energy-efficient windows for cold and mixed climates.

ENERGY STAR[®] windows have a U-Factor of around 0.3. Reducing the U-Factor from 0.3 to 0.2, with high-performance R-5 windows, reduces average heat loss through the window by more than 30%,² and saves consumers money on energy bills.

¹ R-5 = U-Factor of .22 or lower for operating units; .20 for fixed units

² U.S. Department of Energy – Energy Efficiency and Renewable Energy EERE News, May 27, 2010

GLASS OPTIONS

- Low-E
- Low-E^{SC}
- Low-E2
- Low-E2^{SC}
- Low-E2^{MAX}*
- Low-E3^{MAX}*
- HP
- HP^{SC}
- HP2
- HP2+
- HP2^{MAX}*
- HP3^{MAX}*
- Tinted
- Double Strength glass
- Obscure
- Glue Chip Obscure
- Tempered
- Laminated
(security)
- Sound Package
(off-set glass)

* See page 6 for explanation of glass packages. Low-E2^{MAX}, Low-E3^{MAX}, HP2^{MAX} and HP3^{MAX} are not available on all products, see product pages for details. Contact your Ply Gem sales representative for a full list of Premium Series glass thickness options and ratings.



Optional Advanced Easy Clean® Glass is a remarkable advancement in glass design that eliminates frequent exterior window cleaning. Windows and doors with special Easy Clean Glass require less effort than windows with ordinary glass.

WHAT IS LOW-E?

Low-E glass has a secondary, very thin metallic dual layer coating. This allows the sun's heat and light to pass through the insulating glass, but, at the same time, actually works to reflect radiant heat back toward its source. Since Low-E coating reflects radiant heat waves, it helps keep your home warmer in the winter by trapping radiant heat and cooler in the summer by blocking it from your home. Low-E^{SC} is optimized for warmer climates by applying two heavier layers, through a patented process, resulting in blocking 73% of the sun's radiant heat from entering your home while providing superior insulation in cooler weather to save you energy year-round.

Our Interior Surface Low-E is engineered to have the characteristic window manufacturers and homeowners need most — lower U-Factor— and is applied to the surface of the glass you can touch inside your home, providing increased comfort and improved energy savings. One major benefit is a decrease in U-Factor of approximately 0.04, improving the energy efficiency so that many of our doors and windows meet new energy codes and ENERGY STAR® zone requirements. The neutral color with low haze and ultra-smooth surface of our Interior Surface Low-E provides a clearer view of the outdoors and can be cleaned with common household glass cleaners. No special instructions. Our Interior Surface Low-E is durable and scratch-resistant.

NATURAL LIGHT WITHOUT THE GLARE.

Ply Gem's Low-E glass has many advantages such as minimal visible darkening. Our glass minimizes interior glare, reducing eyestrain and making it easier to watch television or look at a computer screen when bright sunlight fills a room.



Below is a glossary of our icons that you will see throughout the Ply Gem Windows & Doors Replacement brochures. These icons identify features and benefits for each window so you can easily understand what is available to you with each style.



CUSTOM SIZING

Ply Gem Premium Series Replacement windows and patio doors can be ordered in 1/8 inch increments to accommodate any replacement application, providing a perfect fit and minimizing installation time and special trimming requirements.



DP CERTIFIED

Ply Gem Premium Series Replacement windows are tested to meet the air, water and structure requirements of AAMA/WDMA 101/I.S.2. Our products meet a Design Press (DP) rating of 35 (double hung) to as high as DP70 on our operating casement (gateway size 24" x 60"). With advanced-level engineering and top-notch innovation, you are assured of the most durable, high-performing windows available nationwide.



INTERFORCE II™

Our Premium windows feature Interforce II™ internal fiberglass reinforced meeting rails for unsurpassed strength and durability.



WARM EDGE TECHNOLOGY

The Warm Edge glass spacer system within Ply Gem Premium Series Replacement windows reduces thermal transfer around the glass perimeter by utilizing a unique U-shaped channel to separate glass panes and interrupt the natural flow of heat to cold. Warm Edge is one continuous piece creating a stronger, more energy-efficient insulated glass unit. Plus it flexes with glass expansion and contraction to ensure a strong seal for the life of the window.



WARM EDGE+ TECHNOLOGY

The Warm Edge+ Spacer System has all of the features of the Warm Edge Spacer, but utilizes a new, less conductive material which provides a lower U-Factor.



R-CORE® INSULATION

The vinyl mainframes of Ply Gem Premium Series windows are filled with patented† R-Core® insulation (pre-expanded high-density solid polyurethane), the same type used in many refrigerator/freezer doors. It prevents voids and settling and results in even distribution of the maximum insulating barrier. Premium Series windows with Energy Package (EP – see page 9 for details) upgrades feature R-Core in both the frame and sash for the ultimate in thermal performance.

†U.S. Patent Number: 4,516,356



NEW GENERATION VINYL

Wood or metal windows can stick when they swell or deteriorate from corrosion. New Generation Vinyl withstands harsh weather as well as wear and tear better. Ply Gem Premium Series Replacement windows are constructed with rugged, maintenance-free New Generation uPVC. Its low conductivity and high energy-efficiency properties are ideal for Ply Gem's advanced window construction. And because vinyl's base color is solid through and through, you'll never need to paint or stain these windows.



PINCH FUSION WELDING

Ply Gem Premium Series Replacement windows are entirely fusion-welded – sashes and mainframes – to create a solid, one-piece unit that maintains its strength over the years. Our state-of-the-art fusion process ensures frame and sash corners won't have the excess variance found with other welding techniques.



SIL LOCK

Premium double hung windows with SilLock are built with a sloped sill which forces water to drain to the exterior of the window, keeping your windows dry. This unique design also ensures a tight weatherstrip contact at the sill.



COASTAL HARDWARE

Typical hardware can easily become corroded or damaged when exposed to constant salt in the air. Ply Gem casement windows with optional coastal hardware will consistently stand up to saltwater and other harsh coastal conditions.

PREMIUM SERIES REPLACEMENT

PREMIUM SERIES REPLACEMENT windows & doors are available in double hung, sliding, casement & awning, garden, bay & bow and sliding patio doors. A number of grilles, glass packages and color options as well as designer glass are also available.