



**WINDSOR**  
WINDOWS & DOORS  
A Woodgrain Millwork Company



# WINDSOR PRODUCT GUIDE

**WINDSOR WINDOWS & DOORS PRODUCT OVERVIEW**

[www.windsorwindows.com](http://www.windsorwindows.com)





PINNACLE RADIUS DIRECT SET WINDOWS AND IN-SWING PATIO DOORS, AND PINNACLE SELECT CASEMENT WINDOWS. Atlanta, Georgia.

# Windsor Provides a Solution for Every Project

**Windsor Windows & Doors can help you bring your vision to life.** Our windows and doors open up a home to the light, air and beauty of the outside world. But it's the inspired designs and lasting performance of Windsor products that open up a world of possibilities for architects and builders.

Windsor has been developing unique home construction solutions for more than 60 years – from EZ Tilt to the first all-cellular PVC

exterior window. We're dedicated to bringing you the highest quality product on the market – all for the best value.

Choose from a wide selection of products for new construction, remodeling or light commercial applications. Windsor's windows and doors allow you to get creative with your next project, without sacrificing quality or stretching your budget.

***Imagine what you can do with Windsor Windows & Doors.***

ON THE COVER // TOP PHOTO: PINNACLE CASEMENT AND DIRECT SET WINDOWS, AND FRENCH PATIO DOORS. Alpine, Utah. LEFT: LEGEND DOUBLE HUNG WINDOWS FEATURING 5-1/2" FLAT CASING WITH BULL NOSE SILL NOSING MANUFACTURED WITHOUT HEAD CASING. CUSTOM HEADER APPLIED IN THE FIELD. North Augusta, South Carolina. CENTER: REVIVE POCKET REPLACEMENT WINDOWS. RIGHT: NEXT DIMENSION SIGNATURE CASEMENT WINDOWS. Norwalk, Iowa.

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# The History of Windsor Windows & Doors

**Windsor Windows & Doors began as a small operation in Des Moines, Iowa, in 1946.** By crafting some of the finest windows and doors available – and asking fair prices – we've built our reputation of quality and value among architects, builders, contractors and homeowners. Windsor remained a regional wood window company until being purchased by Woodgrain Millwork, Inc., Fruitland, Idaho, in 1987.

Woodgrain began as Dame Lumber & Moulding in 1954 by founder Bud Dame, who pioneered the manufacturing of wood mouldings. In 1984, Dame Lumber & Mouldings merged with a subsidiary to form Woodgrain Mouldings. In 1988, the name was officially changed to Woodgrain Millwork. Bud's two sons, Reed and Kelly Dame, are currently the owners of Woodgrain Millwork.

Windsor is proud to be owned by such a large and successful company. Woodgrain has grown into the largest manufacturer of mouldings and interior doors in the United States. Four separate divisions are now part of the Woodgrain family; Millwork, Distribution, Doors and Windows. Woodgrain Millwork currently employs over 3,000 people in 20 different locations, including two in Chile.

We've come a long way since we built our first window in 1946. Since joining Woodgrain, Windsor has streamlined its manufacturing processes, invested in state-of-the-art equipment, engineered innovative new designs and expanded the product offering. Windsor's corporate headquarters is located in West Des Moines, Iowa. The manufacturing plant in that location occupies 340,000 square feet, and we also operate a second 200,000-square-foot production facility in Monroe, North Carolina. We manufacture four distinct product lines: Pinnacle (wood clad windows and patio doors), Legend (cellular PVC windows), Next Dimension (vinyl windows and patio doors) and Revive™ (wood clad, hybrid and vinyl pocket replacement windows). Windsor enjoys a national presence in the window and patio door marketplace. We ship quality products throughout the United States and to Canada, Mexico and China.

Woodgrain Millwork, Inc., and Windsor Windows & Doors have succeeded as a result of traditional American values. The diligence and hard work of the owners, as well as every employee they have hired throughout the years, has allowed the company to grow into a viable competitor in the residential and light commercial building market. We strive every day to meet our customers' needs and exceed their expectations. Our goal is to provide the best value in the window and door industry.

PINNACLE CASEMENT, DIRECT SET AND PICTURE WINDOWS  
WITH AWNINGS, AND IN-SWING PATIO DOORS.  
Silver Lake, Wisconsin.







PINNACLE CASEMENT, AWNING, DIRECT SET AND PICTURE WINDOWS, WITH IN-SWING AND SLIDING PATIO DOORS. Cleveland, Ohio.

## The Windsor Advantage

At Windsor Windows & Doors, we're committed to providing the finest products, engineered to meet the needs of all your projects. We'd like you to experience the **Windsor Advantage**...a complete set of impactful solutions delivering outstanding service, selection, quality and value.

Whether you're looking for the beauty of wood in our Pinnacle products, the longevity of our Legend cellular PVC, the efficiency of our Next Dimension vinyl or the easy installation of our Revive pocket replacement windows, rest assured Windsor takes pride in producing meticulously crafted windows and doors for each specific order.

We use the highest quality materials, resulting in products that are durable, reliable and weather resistant. Our goal is to exceed your expectations by providing short order lead times, reliable delivery dates and the flexibility to respond to your custom requests.

The **Windsor Advantage** means you won't pay a premium for superior quality, exceptional service and a fair price. You'll find with your very first order, Windsor is not just a window and door company. We're a collection of dedicated professionals working every day to solve problems and build lasting relationships.



LEGEND DOUBLE HUNG WINDOWS. Franklin, Tennessee.

# Growing Green

**In its total commitment to customers, Windsor Windows & Doors promises quality, service, responsiveness and value.**

In its total commitment to the environment, Windsor promises to act as a responsible corporate citizen, optimizing the use of resources and manufacturing products that not only have a positive impact on the environment, but also the health of people.

Windsor understands the challenges builders and architects face when committing to building green, and we want to make it as easy as possible. We seek third party green certifications and join organizations that value what we do – making our Earth a cleaner place to live. We want homeowners to have peace of mind, knowing when they choose Windsor, they are choosing a product that has minimal impact on the environment. And we won't stop there; we are continually reevaluating processes and redefining the expectations that we hold of ourselves as a responsible manufacturer.

As a member of the United States Green Building Council, Windsor supports the work of this nonprofit, which encourages and educates the industry on the importance of environmental responsibility. The USGBC established the standards for LEED building certification, a national benchmark for those seeking third party certification. Windsor's windows have been used in homes that have acquired LEED certification, as well as countless other homes that adhere to strict environmental regulations.

At Windsor, we recognize it's not enough to claim to be green; it's demonstrated through our actions. Recycling has become a key component in our manufacturing process. We purchase materials with recycled components, while carefully optimizing the use of resources and recycling the generated scrap. Windsor recently launched a new packaging program, which is comprised of materials that contain recycled content and can be recycled upon arriving to the jobsite, yielding minimal waste. Consciously recycling and reducing the use of resources is one of the ways Windsor has lessened its footprint on the environment.

Windsor manufactures its products out of facilities in West Des Moines, Iowa, and Monroe, North Carolina. With locations in diverse regions of the United States, Windsor is better suited to distribute products within a reasonable distance; thus reducing the amount of carbon emissions released into the atmosphere on account of vehicle transportation.

With green in mind, Windsor recently built its second manufacturing facility in West Des Moines. The building was engineered to be thermally efficient with optimal airflow. With the use of florescent light bulbs, Windsor uses half the energy that would be used with standard light bulbs. "Zone lighting" was implemented, in order to use the least amount of energy possible during irregular hours.

While Windsor adheres to the strictest of green practices in production, we enforce this philosophy across all departments. When redesigning a product, engineering strives to increase its lifecycle and considers opportunities to integrate more environmentally friendly materials; and all marketing materials are printed on recycled paper.

## Family-owned company, corresponding values

Windsor's parent company, Woodgrain Millwork, is a family owned and operated company, which recognizes stewardship as one of its key values. Woodgrain is a USGBC member and has acquired FSC CoC certification. They purchase wood from FSC-certified forests and other sustainable locations. Woodgrain recycles and strives to operate in an environmentally conscious manner.

## Partnering with those who are like-minded

All of Windsor's primary vendors participate in extensive recycling programs and adhere to, or surpass, all local, state and national environmental regulations.

Many are considered to be environmental leaders in their particular industry, manufacturing products made from recycled materials, receiving awards from organizations such as the DNR and acquiring FSC and SFI certification.











# Windsor Makes Each Project a Success

**Windsor Windows & Doors has a distinct product line for every application.** Residential, light commercial, multi-family and historical renovations. Discover all the products we have to offer...

## Pinnacle Select

Pinnacle Select is an elite product line constructed from enhanced components that provide unsurpassed performance. DP ratings ranging from 50 up to 70 are some of the most impressive in the industry. Select products are currently offered in casements (vented and fixed), picture, transom and awning. This line features a unique push-out style casement and awning, as well as a retractable screen option.

## Pinnacle

Our top-of-the-line Pinnacle wood clad windows and doors offer a large selection of styles and shapes. The exterior comes in either a primed wood or low-maintenance extruded aluminum cladding in 22 standard colors, 20 feature colors or eight anodized finishes. Custom color matching is also available.

The wood interiors of our Pinnacle products are made from the finest Clear Select Pine, specially treated for long life. Select our Douglas Fir, which ranges in natural colors from bright white to a rich rose, or an attractive Natural Alder with wood tones spanning from a golden honey to handsome reddish brown. These exquisite woods will be a complement to any home's décor for years to come.

Pinnacle patio doors are offered in a variety of sizes and styles and are known for their strength, quality and aesthetics. They are easy to operate, and our heavy-duty weatherstripping will ensure your patio doors are ready for the changing seasons.

Whether you choose a swinging or sliding patio door for a traditional look with modern performance, a stunning bi-fold door to let the beauty of nature into your home or a multi-slide door to highlight your outdoor area and expand your interior living space, a Pinnacle patio door is a great way to enhance your view.

## Legend

Our Legend products use state-of-the-art cellular PVC in a solid construction throughout, creating the next innovation in windows. Legend is not a wood window, but is a window offering the best features of both the traditional look and feel of painted wood, plus the low maintenance and durability of cellular PVC. This product offers the only 25-year warranty in the industry. Get the best of both worlds with Windsor's Legend product.





## Legend HBR

Windsor has developed a unique hybrid product that we call Legend HBR. It combines the strength and durability of our Legend cellular PVC frame with a wood clad sash. The merging of these two product types offers a low-maintenance exterior with a beautiful wooden interior. Choosing both of these materials in white provides a traditional appearance, while producing the sash and frame in contrasting colors creates a two-toned effect that is popular in certain regions of the country. Our Legend HBR products are well suited for both new construction and historical renovation.

## Next Dimension Signature

Next Dimension Signature windows and doors are robust, reliable products that offer the resilience of extruded multi-chambered vinyl. Enhanced components and sturdy construction add strength and stability. Homeowners enjoy exceptional performance and energy efficiency.

## Next Dimension Classic

Next Dimension Classic is available in single and double hung units, sliders, as well as sliding patio doors. What makes Next Dimension Classic unique is its sloped sill, tilt sash, brickmould profile frame and decorative features, such as a profiled inner grille and simulated divided lite.

## Next Dimension Pro

Next Dimension Pro vinyl windows and patio doors are designed for light commercial, multi-family and residential applications, all at a highly competitive price. Vinyl extrusions ensure superior weathering, durability and color retention. Construction features are built in to reduce maintenance, add strength and security, and maximize weather resistance.

## Revive™ Pocket Replacement Windows

Our Revive pocket replacement windows let you transform each window in your home with the outstanding Windsor quality homeowners have come to expect – with a simple, one-hour installation process that leaves treasured wood trim and other features undisturbed. And because they are meticulously built to order with customizable features in three available materials (wood clad, hybrid and vinyl), Windsor Revive pocket replacement windows are a fast, uncomplicated upgrade.

## Revive Sash Replacement Kit

Replace old, drafty, inefficient double hung sashes with energy efficient, dual pane sashes. Windsor's Revive Sash Replacement Kit makes updating easy, allowing homeowners to leave existing interior trim and plaster in place. Choose from three different replacement sashes: versatile primed wood, durable aluminum clad or low-maintenance cellular PVC. And, because Revive sashes feature EZ Tilt, cleaning is fast and hassle-free.

FEATURED ABOVE // PHOTO 1: PINNACLE DIRECT SET WINDOWS WITH TRANSOMS. Alpine, Utah. PHOTO 2: PINNACLE AWNING AND CASEMENT PICTURE WINDOWS, AND OUT-SWING FRENCH DOORS IN CHERRY WOOD. Pebble Beach, California. PHOTO 3: PINNACLE 10'0" IN-SWING PATIO DOORS AND STATIONARY DOOR PANELS IN BRONZE. Atlanta, Georgia. PHOTO 4: LEGEND DOUBLE HUNG WINDOWS WITH TRANSOMS. Greenwood, South Carolina. PHOTO 5: NEXT DIMENSION SIGNATURE PICTURE WINDOWS. Ankeny, Iowa. PHOTO 6: NEXT DIMENSION SIGNATURE CASEMENT WINDOWS. Norwalk, Iowa.

# Pinnacle Select Casement & Awning

## Benefits of Pinnacle Select

- [1]** Extruded aluminum in 22 standard colors, 20 feature colors and eight anodized finishes; custom colors also available
- [2]** All clad colors painted in-house with the highly durable AAMA 2604 standard finish, or upgrade to AAMA 2605 for the most challenging of environments
- [3]** Clear Select Pine, Douglas Fir, Natural Alder or primed interior finishes
- [4]** Constructed with 2-5/16" wide stiles and rails that add structural stability and provide a more massive architectural appearance
- [5]** Robust 2-3/16" thick sash adds dimension and strength; for Select units with 1-1/4" OA triple IG, the sash thickness increases to 2-7/16"

- [6]** Double mortise and tenon sash joints fastened with screws for strength and stability
- [7]** Select casement and awning available in larger sizes
  - Crank-out: up to 3678 or 3096
  - Push-out: up to 3678
  - Venting awning: up to 6060
- [8]** Select casement and awning available in two styles
  - Operating: standard crank
  - Push-out: lever handle
- [9]** Retractable screens available on operating and push-out products; pull bar, cartridge case and frame of screen produced from same wood species as window
- [10]** Full-width extension jambs standard
- [11]** Windsor Glazing System provides 3/4" double pane insulated glass
  - Cardinal® LoE 366 glass standard
  - Select units with triple IG option feature 1-1/4" OA insulated glass
  - Tinted, tempered, obscure and laminated glass available

## Features of Push-out Units

- [12]** Push-out hardware consists of an easy-to-operate lever with cam rollers and keepers; this mechanism provides a multi-point locking system that is standard
- [13]** Push-outs equipped with adjustable friction hinges and lock rollers in both casement and awning
- [14]** Friction device on larger push-out awning maintains sash opening
- [15]** Push-out casement provides an impressive DP rating of 50 for all sizes
- [16]** DP rating of push-out awning range from 40 up to 70

## Features of Operating Units

- [17]** Operating casement uses adjustable hinges
- [18]** Operating casement provides an amazing DP rating of 70 (*except for the 3678, which has a DP rating of 50*)
- [19]** DP rating of operating awning is 50 for all sizes

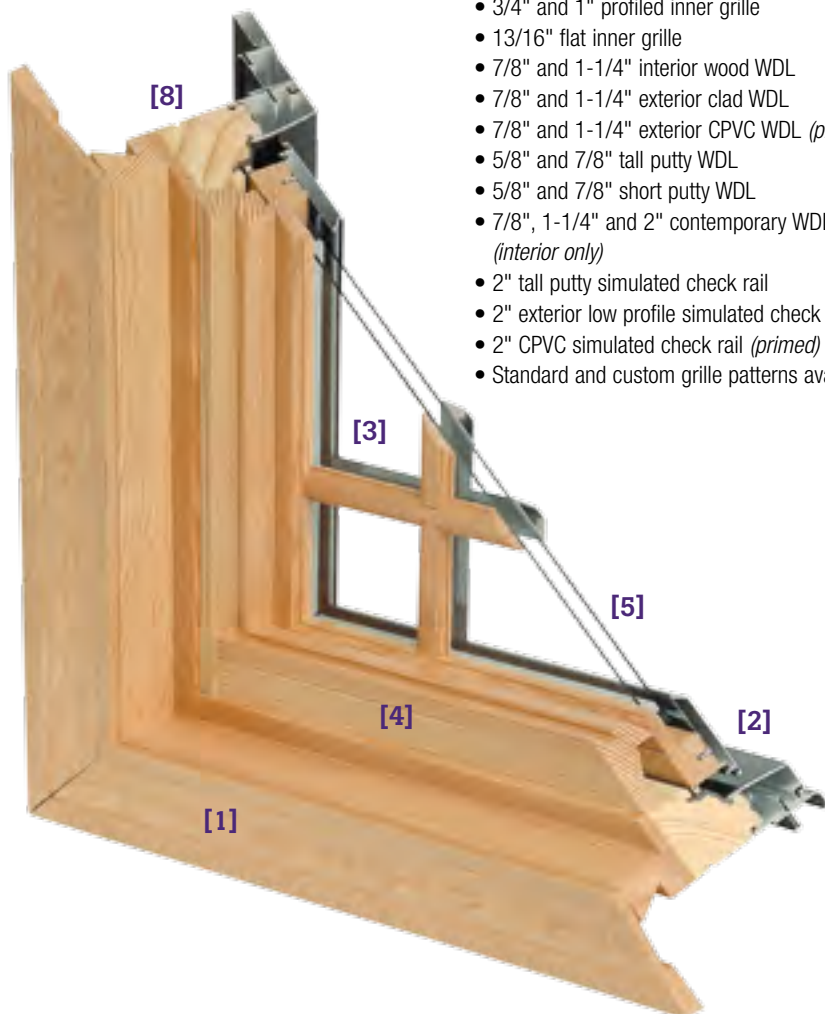




# Pinnacle Casement & Awning

## Features and Benefits

- [1]** The warmth and beauty of Clear Select Pine, Douglas Fir or Natural Alder; can be painted or stained
- [2]** Clad units offer a strong, durable extruded aluminum sash and frame for low maintenance; primed units offer the traditional appearance of decorative trim
- [3]** Glass is replaceable in case of damage
- [4]** 2" thick sash adds beauty and increases insulating value
- [5]** Exterior tape glazing slows conduction of heat/cold through edge of glass; two beads of silicone ensure a water tight seal that creates three seals between glass and sash
- [6]** Single lever, sequential, multi-point lock for sleek look and easy operation
- [7]** Adjustable concealed hinge system ensures smooth operation
- [8]** 1-1/4" jamb creates unmatched strength and stability
- [9]** Silicone-injected frame corners create a stronger and more attractive joint



## Sizes

Available in hundreds of standard and custom sizes

## Glazing

- Windsor Glazing System provides 3/4" double pane insulated glass; Cardinal® LoE 366 glass standard; tinted, tempered, obscure and laminated glass available
- Glazed with tape and silicone sealant
- Custom and special glass types available
- Preserve protective film optional

## Exterior Trim

- Clad windows available with WM 180 brickmould, Williamsburg or 3-1/2" flat casing; primed windows available with WM 180 brickmould, WM 180 brickmould with flange, Williamsburg, 3-1/2" flat, 4-1/2" backband, 5-1/2" flat or plantation casing; 2" bull nose sill nose, casement subsill or 2" casement subsill

## Grilles

*Windsor Divided Lite (WDL) = simulated divided lite*

- 7/8" and 1-1/4" perimeter grille
- 7/8" and 1-1/4" stick grille
- 3/4" and 1" profiled inner grille
- 13/16" flat inner grille
- 7/8" and 1-1/4" interior wood WDL
- 7/8" and 1-1/4" exterior clad WDL
- 7/8" and 1-1/4" exterior CPVC WDL (*primed*)
- 5/8" and 7/8" tall putty WDL
- 5/8" and 7/8" short putty WDL
- 7/8", 1-1/4" and 2" contemporary WDL (*interior only*)
- 2" tall putty simulated check rail
- 2" exterior low profile simulated check rail
- 2" CPVC simulated check rail (*primed*)
- Standard and custom grille patterns available

## Finishes

- Interior – Clad windows available in Clear Select Pine, Douglas Fir, Natural Alder, primed or painted white interior finishes; primed windows available in Clear Select Pine, primed or painted white interior finishes
- Exterior – Clad windows feature heavy-duty extruded aluminum cladding on sash and frame; primed windows offer an assortment of traditional trim options

## Clad Colors

All clad colors painted in-house with the highly durable AAMA 2604 standard finish, or upgrade to AAMA 2605 for the most challenging of environments

- 22 standard colors
- 20 feature colors; custom colors available
- 8 anodized finishes

## Hardware

Encore folding nesting crank and cover by Truth® available in champagne, white, bronze and black; optional finishes in faux bronze, oil rubbed bronze, satin nickel and bright brass

## Performance Ratings

For current performance ratings, visit our website at [windsorwindows.com](http://windsorwindows.com) and click on "Professional Information" in the menu bar



# Pinnacle Double Hung & Glide-by

## Features and Benefits

- [1] The warmth and beauty of Clear Select Pine, Douglas Fir or Natural Alder; can be painted or stained
- [2] Clad units offer a strong, durable extruded aluminum sash and frame for low maintenance; primed units offer the traditional appearance of decorative trim
- [3] Glass is replaceable in case of damage
- [4] Both tape and silicone glazed, with interior wood stops for superior strength and seal
- [5] EZ Tilt operation available for easy removal and replacement of sash (*double hung only*)
- [6] Recessed lock and keeper for a sleek appearance
- [7] Block and tackle balance system for ease of operation
- [8] Both sashes tilt in with compression or concealed jambliner for easy cleaning
- [9] No-finger pull option for hardware application

## Sizes

Available in hundreds of standard and custom sizes

## Glazing

- Windsor Glazing System provides 3/4" double pane insulated glass; Cardinal® LoE 366 glass standard; tinted, tempered, obscure and laminated glass available
- Glazed with tape and silicone sealant
- Custom and special glass types available
- Preserve protective film optional

## Exterior Trim

- Clad windows available with WM 180 brickmould, Williamsburg or 3-1/2" flat casing; primed windows available with WM 180 brickmould, WM 180 brickmould with flange, Williamsburg, 3-1/2" flat, 4-1/2" backband, 5-1/2" flat or plantation casing; double hung sill nose, 2" bull nose sill nose or belly sill nose

## Grilles

*Windsor Divided Lite (WDL) = simulated divided lite*

- 7/8" and 1-1/4" perimeter grille
- 7/8" and 1-1/4" stick grille
- 3/4" and 1" profiled inner grille
- 13/16" flat inner grille
- 7/8" and 1-1/4" interior wood WDL
- 7/8" and 1-1/4" exterior clad WDL
- 7/8" and 1-1/4" exterior CPVC WDL (*primed*)
- 5/8" and 7/8" short putty WDL
- 7/8", 1-1/4" and 2" contemporary WDL (*interior only*)
- 2" exterior low profile simulated check rail
- 2" CPVC simulated check rail (*primed*)
- Standard and custom grille patterns available

## Finishes

- Interior – Clad windows available in Clear Select Pine, Douglas Fir, Natural Alder, primed or painted white interior finishes; primed windows available in Clear Select Pine, primed or painted white interior finishes
- Exterior – Clad windows feature heavy-duty extruded aluminum cladding on sash and frame; primed windows (*double hung only*) offer an assortment of traditional trim options

## Clad Colors\*

All clad colors painted in-house with the highly durable AAMA 2604 standard finish, or upgrade to AAMA 2605 for the most challenging of environments

- 22 standard colors
- 20 feature colors; custom colors available
- 8 anodized finishes

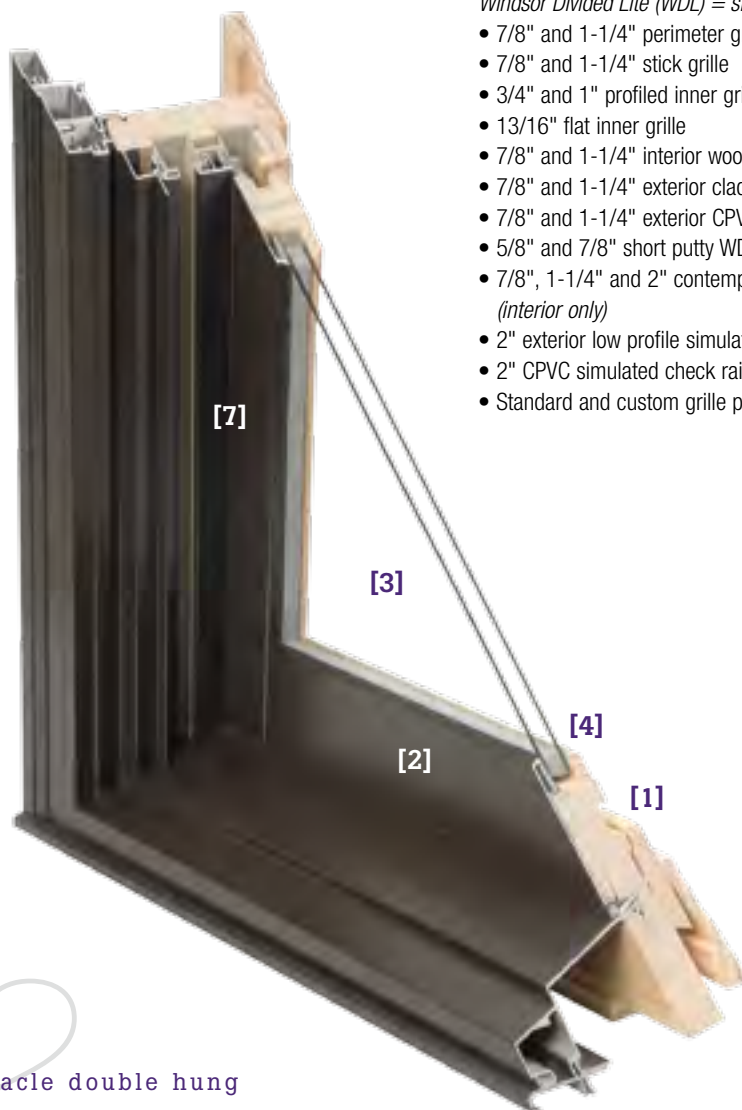
*\*Glide-by products only available in white, ivory, tan, bronze, cinnamon, hunter green and black*

## Hardware

Double hung lock available in champagne, white, bronze and black; optional finishes in faux bronze, oil rubbed bronze, satin nickel and bright brass

## Performance Ratings

For current performance ratings, visit our website at [windsorwindows.com](http://windsorwindows.com) and click on "Professional Information" in the menu bar





# Pinnacle Sliding Patio Door

## Features and Benefits

- [1]** Wood parting stops and absence of screws provide a warm, clean look
- [2]** Integral nail fin on clad doors
- [3]** Heavy-duty interlock improves air and structural performance
- [4]** Standard two-point lock for added security
- [5]** One-piece, fiberglass pultruded sill minimizes cold conduction
- [6]** Aluminum jamb covers at the head and strike jambs hide exposed screws and provide a smoother, more attractive surface
- [7]** Doors slide on two tandem, heavy-duty, end-adjustable, ball bearing rollers for years of smooth, trouble-free operation
- [8]** Improved breakaway force of panel (10 lbs) and operating force (6 lbs) provide effortless operation
- [9]** Taller sill provides excellent water performance and design pressure ratings
- [10]** Foam-backed glazing bead prevents paint and stain from bleeding
- [11]** All stiles constructed of an LVL core for a stronger, straighter, more durable door
- [12]** Panel exterior matches Pinnacle product line with consistent depth from glass to face of the panel for a clean, complementary appearance

## Sizes

- Five standard heights: 6'8", 6'10", 8'0", 9'0" and 10'0" (9'0" and 10'0" doors available in clad French slider only)
- Custom sizes available

## Glazing

- Windsor Glazing System provides 3/4" double pane insulated glass; Cardinal® LoE 366 glass standard; tinted, tempered, obscure and laminated glass available
- Interior stop glazed with silicone sealant
- Custom and special glass types available

## Exterior Trim

- Clad doors available with WM 180 brickmould, Williamsburg or 3-1/2" flat casing; primed doors available with WM 180 brickmould, WM 180 brickmould with flange, Williamsburg, 3-1/2" flat, 4-1/2" backband, 5-1/2" flat or plantation casing

## Grilles

*Windsor Divided Lite (WDL) = simulated divided lite*

- 7/8" and 1-1/4" perimeter grille
- 3/4" and 1" profiled inner grille
- 13/16" flat inner grille
- 7/8" and 1-1/4" interior wood WDL
- 7/8" and 1-1/4" exterior clad WDL
- 7/8" and 1-1/4" exterior CPVC WDL (*primed*)
- 5/8" and 7/8" short putty WDL
- 7/8", 1-1/4" and 2" contemporary WDL (*interior only*)
- 2" exterior low profile simulated check rail
- 2" CPVC simulated check rail (*primed*)
- Standard and custom grille patterns available

## Weatherstripping

- Flexible, weatherable PVC and foam seal at the head and jambs with a pile fin-seal weatherstripping at the interlocks; pile weatherstripping also used at the bottom of the operating panel and at the ends of the interlock

## Finishes

- Interior – Clad doors available in Clear Select Pine, Douglas Fir, Natural Alder, primed or painted white interior finishes; primed doors available in Clear Select Pine, primed or painted white interior finishes
- Exterior – Clad doors available in heavy-duty extruded aluminum cladding; primed doors offer an assortment of traditional trim options

## Clad Colors

All clad colors painted in-house with the highly durable AAMA 2604 standard finish, or upgrade to AAMA 2605 for the most challenging of environments

- 22 standard colors
- 20 feature colors; custom colors available
- 8 anodized finishes

## Hardware

D-shaped handle available in white, brushed chrome, polished chrome, satin nickel, antique nickel, brass, antique brass, faux bronze, oil rubbed bronze and black

## Performance Ratings

For current performance ratings, visit our website at [windsorwindows.com](http://windsorwindows.com) and click on "Professional Information" in the menu bar



# Pinnacle Swinging Patio Door

## Features and Benefits

- Stainless steel multi-point locking hardware option for added security
- Integral structural astragal allows for doors up to 12 feet wide to be placed in a single frame, which decreases the potential for air and water infiltration
- "Easy Adjust" hinge system for effortless operation and correction after installation
- Wept sill system to eliminate water infiltration
- Dual-seal frame weatherstripping at panel face and edge improves air and thermal performance
- Taller sill provides excellent water performance and design pressure ratings
- Foam-backed glazing bead prevents paint and stain from bleeding
- Active stiles constructed of an LVL core material for added strength and stability
- Panel exterior matches Pinnacle product line with consistent depth from glass to face of the panel for a clean, complementary appearance
- Low-clearance (ADA-approved) sill options
- In-swing and out-swing options available
- 1/2 and 3/4 lite available with flat or split panel option
- Seg-top available

## Sizes

- Five standard heights: 6'8", 6'10", 8'0", 9'0" and 10'0"
- Custom sizes available

## Glazing

- Windsor Glazing System provides 3/4" double pane insulated glass; Cardinal® LoE 366 glass standard; tinted, tempered, obscure and laminated glass available
- Interior stop glazed with silicone sealant
- Custom and special glass types available

## Exterior Trim

- Clad doors available with WM 180 brickmould, Williamsburg or 3-1/2" flat casing; primed doors available with WM 180 brickmould, WM 180 brickmould with flange, Williamsburg, 3-1/2" flat, 4-1/2" backband, 5-1/2" flat or plantation casing

## Grilles

*Windsor Divided Lite (WDL) = simulated divided lite*

- 7/8" and 1-1/4" perimeter grille
- 3/4" and 1" profiled inner grille
- 13/16" flat inner grille
- 7/8" and 1-1/4" interior wood WDL
- 7/8" and 1-1/4" exterior clad WDL
- 7/8" and 1-1/4" exterior CPVC WDL (*primed*)
- 5/8" and 7/8" short putty WDL
- 7/8", 1-1/4" and 2" contemporary WDL (*interior only*)
- 2" exterior low profile simulated check rail
- 2" CPVC simulated check rail (*primed*)
- Standard and custom grille patterns available

## Weatherstripping

- Rigid, weatherable PVC or urethane foam encased in polyethylene film
- In-swing and out-swing doors feature bottom heavy-duty, self-adjusting sweep

## Finishes

- Interior – Clad doors available in Clear Select Pine, Douglas Fir, Natural Alder, primed or painted white interior finishes; primed doors available in Clear Select Pine, primed or painted white interior finishes
- Exterior – Clad doors available in heavy-duty extruded aluminum cladding; primed doors offer an assortment of traditional trim options

## Clad Colors

All clad colors painted in-house with the highly durable AAMA 2604 standard finish, or upgrade to AAMA 2605 for the most challenging of environments

- 22 standard colors
- 20 feature colors; custom colors available
- 8 anodized finishes

## Hardware

Classic or contemporary handle available in white, brushed chrome, polished chrome, satin nickel, antique nickel, brass, antique brass, faux bronze, oil rubbed bronze and black

## Performance Ratings

For current performance ratings, visit our website at [windsorwindows.com](http://windsorwindows.com) and click on "Professional Information" in the menu bar



pinnacle swinging patio door



# Pinnacle Multi-slide Patio Door

## Features and Benefits

- Stacking and pocket configurations
  - Stacking multi-slide door systems stack all panels in line with the stack stationary panel when the panels are in the fully-open position; in the stacking configuration, all panels are still visible
  - Pocketed multi-slide door systems incorporate a pocket in the wall cavity to conceal all panels when they are in the fully-open position; in the pocketed configuration, all panels are hidden in the pocket
- Single-direction handing; all panels operate either all-left or all-right
- Door jamb widths vary depending on the number of panels in the multi-slide system
- One panel (pocket only) to eight panel configurations with maximum 20'0" frame width
- Main frame head jamb and sill use dark bronze anodized aluminum extrusions with powder paint color-matched frame nosing and pocket covers
- Folding aluminum nailing fins applied
- Pinnacle 1-3/4" thick sliding patio door panels
- Heavy-duty interlock improves air and structural performance
- Panels slide on two tandem, heavy-duty, end-adjustable ball bearing rollers for years of smooth, trouble-free operation
- Standard Pinnacle patio door IG options available
- Standard Pinnacle patio door grille options available

## Sizes

- Standard heights
  - French panels: 6'8", 6'10", 8'0", 9'0", 10'0"
  - Narrow panels: 6'8", 6'10", 8'0"
- Panel width callouts: 2'6", 3'0", 4'0"
- Maximum frame width: 20'0"

## Glazing

- 3/4" double pane LoE 366 Cardinal® IG standard; tinted, obscure and laminated glass available
- Interior stop glazed with tape and silicone

## Grilles

*Windsor Divided Lite (WDL) = simulated divided lite*

- 7/8" and 1-1/4" interior wood ogee WDL
- 7/8" and 1-1/4" exterior clad ogee WDL
- 5/8" and 7/8" interior wood putty WDL
- 5/8" and 7/8" exterior clad short putty WDL
- 7/8", 1-1/4" and 2" interior wood contemporary WDL
- 2" low profile exterior clad WDL
- 7/8" and 1-1/4" perimeter grille
- 3/4" and 1" profiled inner grille
- 13/16" flat inner grille
- Standard and custom grille patterns available

## Finishes

- Interior – Doors with French panels available in Clear Select Pine, Douglas Fir and Natural Alder; doors with narrow-stile panels available in Clear Select Pine
- Exterior – Doors standard with heavy-duty extruded aluminum cladding

## Clad Colors

- All clad colors painted in-house with the highly durable AAMA 2604 standard finish, or upgrade to AAMA 2605 for the most challenging of environments
- 22 standard colors
  - 20 feature colors
  - Custom colors available

## Hardware

- Pinnacle sliding patio door end-adjustable roller system
- Pinnacle sliding patio door two-point locking gear and keeper
- Flush-mount handles standard on pocket and stacking door systems; available in oil rubbed bronze, faux bronze, black and brushed nickel (*figure 1*)
- Flush-mount handles standard with a keyed lock
- All panels standard with brushed nickel finger pull located at the edge of the lead operating panel (*figure 2*)



Fig. 1



Fig. 2



All applications using multi-slide door systems require outdoor overhangs equal to or greater than the height of the multi-slide door.

When using the staggered sill option, a mop zone on the interior of the door is highly recommended, as this application can experience water infiltration under certain conditions.

# Pinnacle Bi-fold Patio Door



Pinnacle bi-fold doors may vary slightly in appearance and features.

## Features and Benefits

- Multi-point locking system on passage panels features three-point jamb-engaged tongue system for uncompromised security
- Centor Architectural E3 bi-fold hardware system provides stability and smooth operation
- Lever handle activated head and sill twin bolt system for added security
- Wept sill system to eliminate water infiltration
- Dual weatherstrips at panel edge improve air and thermal performance
- Foam-backed glazing bead minimizes paint and stain bleeding.
- Stiles constructed of an LVL core material for added strength and stability
- Panel exterior matches Pinnacle product line with consistent depth from glass to face of the panel for a clean, complementary appearance

## Sizes

- Five standard heights: 6'8", 6'10", 8'0", 9'0" and 10'0"
- Can be assembled with as few as two panels, and up to eight panels wide
- Custom sizes available

## Glazing

- Windsor Glazing System provides 3/4" double pane insulated glass; Cardinal® LoE 366 glass standard
- Interior stop glazed with silicone sealant
- Custom and special glass types available

## Grilles

*Windsor Divided Lite (WDL) = simulated divided lite*

- 3/4" and 1" profiled inner grille\*
- 13/16" flat inner grille
- 7/8" and 1-1/4" interior wood WDL
- 7/8" and 1-1/4" exterior clad WDL
- 5/8" and 7/8" short putty WDL
- 7/8", 1-1/4" and 2" contemporary WDL (interior only)
- Standard and custom grille patterns available

\*1" profile inner grille not available on 10'0" tall doors.

## Weatherstripping

- Two weatherstrip barriers between each panel and between panels and frame; urethane foam encased in polyethylene film around entire frame; pile weatherstripping along head and sill provide added protection

## Finishes

- Interior – Clear Select Pine, Douglas Fir or Natural Alder
- Exterior – Heavy-duty extruded aluminum cladding

## Clad Colors

All clad colors painted in-house with the highly durable AAMA 2604 standard finish, or upgrade to AAMA 2605 for the most challenging of environments

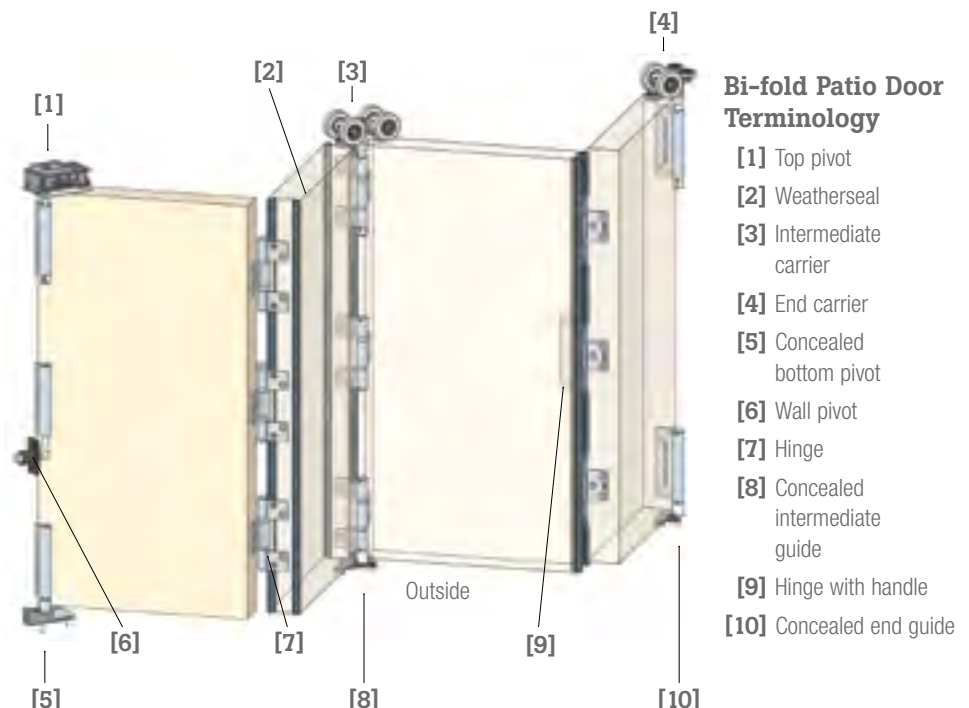
- 22 standard colors
- 20 feature colors; custom colors available
- 8 anodized finishes

## Hardware

Classic or contemporary handle available in satin nickel, brass and oil rubbed bronze

## Performance Ratings

For current performance ratings, visit our website at [windsorwindows.com](http://windsorwindows.com) and click on "Professional Information" in the menu bar



## Bi-fold Patio Door Terminology

- [1] Top pivot
- [2] Weatherseal
- [3] Intermediate carrier
- [4] End carrier
- [5] Concealed bottom pivot
- [6] Wall pivot
- [7] Hinge
- [8] Concealed intermediate guide
- [9] Hinge with handle
- [10] Concealed end guide



# Pinnacle Impact featuring Seastorm™ Glass

**Pinnacle Impact is available in casement, awning, double hung, radius, direct set, French sliding patio doors and out-swing patio doors.**

## Features and Benefits

- The warmth and beauty of Clear Select Pine, Douglas Fir or Natural Alder; can be painted or stained
- Clad units offer a strong, durable extruded aluminum sash and frame for low maintenance; Impact double hung units require higher inside stop
- Glass is replaceable in case of damage
- Specialty windows available in a wide variety of direct set and radius styles
- Certified, proven-safe solution against hurricane blasts; laminated glass allows unit to crack instead of shatter when under great pressure
- Meets and exceeds modern building codes for extreme coastal environment conditions
- Dampens sounds from traffic, neighbors and the outdoors
- Resistant to interior fading from constant sunlight
- Offers security against intruders with shatterproof and cutter-detering glass
- Preserve protective film standard

## Sizes

Available in hundreds of standard and custom sizes

## Glazing

- Glazed with tape and Dow Corning® 955 silicone sealant – the strongest silicone bonding agent available
- Cardinal SeaStorm™ LoE 366 insulated glass standard, featuring stainless steel spacers; tinted, tempered and laminated glass available
- Custom and special glass types available
- Insulated glass utilizes annealed glass on exterior and laminated glass on interior
- Laminated glass features PVB inner layer on units up to 26 square feet and SGP inner layer on units over 26 square feet

## Grilles

*Windsor Divided Lite (WDL) = simulated divided lite*

- 7/8" and 1-1/4" perimeter grille
- 7/8" and 1-1/4" stick grille
- 3/4" and 1" profiled inner grille
- 13/16" flat inner grille
- 7/8" and 1-1/4" interior wood WDL
- 7/8" and 1-1/4" exterior clad WDL
- 5/8" and 7/8" tall putty WDL
- 5/8" and 7/8" short putty WDL
- 7/8", 1-1/4" and 2" contemporary WDL (*interior only*)
- 2" tall putty simulated check rail
- 2" exterior low profile simulated check rail
- Standard and custom grille patterns available

## Finishes

- Interior – Clad units available in Clear Select Pine, Douglas Fir, Natural Alder, primed or painted white interior finishes; primed units available in Clear Select Pine, primed or painted white interior finishes
- Exterior – Clad units available in heavy-duty extruded aluminum cladding; primed units offer an assortment of traditional trim options

## Clad Colors

All clad colors painted in-house with the highly durable AAMA 2604 standard finish, or upgrade to AAMA 2605 for the most challenging of environments

- 22 standard colors
- 20 feature colors; custom colors available
- 8 anodized finishes

## Hardware

- Casement, awning and double hung hardware available in champagne, white, bronze and black; optional finishes in faux bronze, oil rubbed bronze, satin nickel and bright brass
- Patio door handles available in white, brushed chrome, polished chrome, satin nickel, antique nickel, brass, antique brass, faux bronze, oil rubbed bronze and black

## Performance Ratings

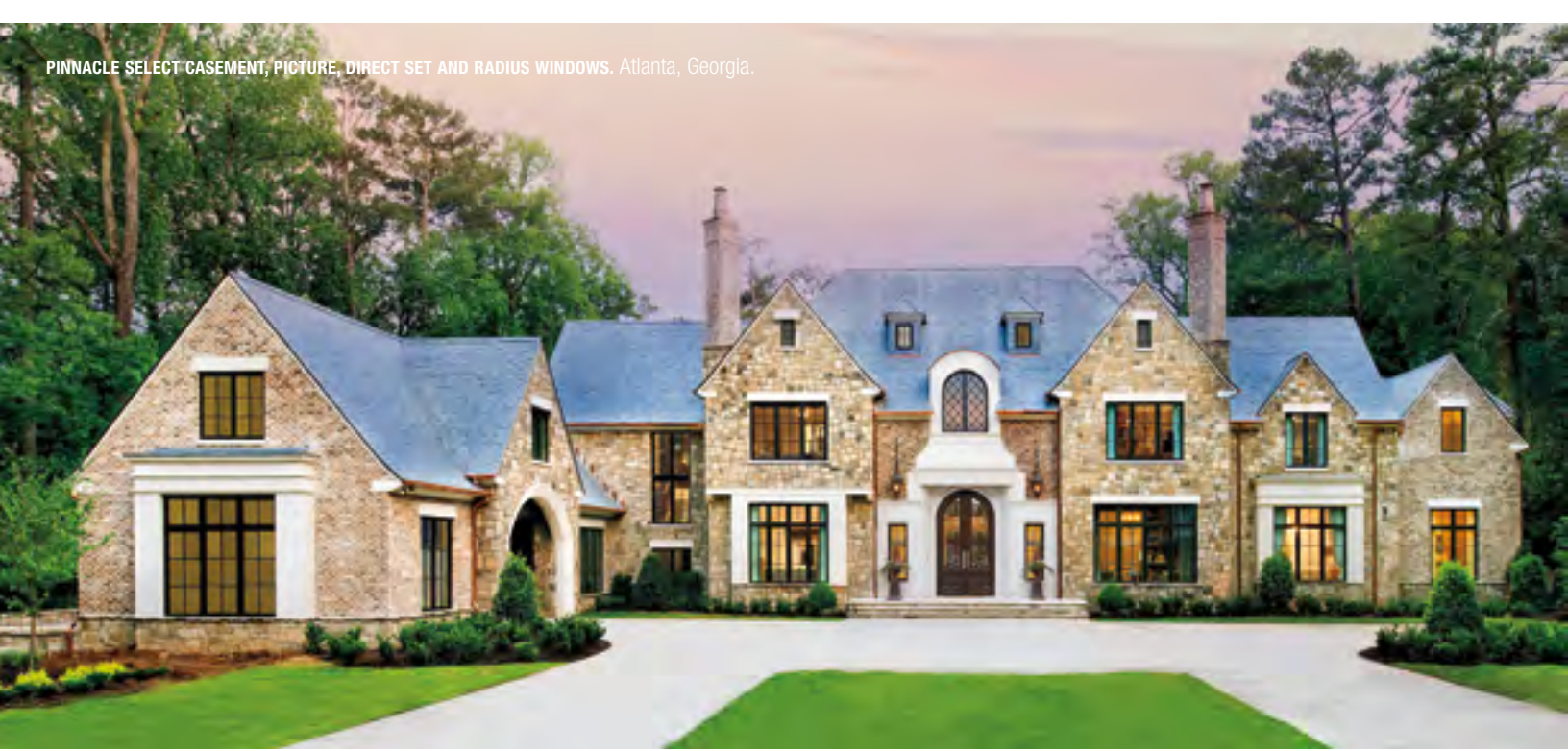
For current performance ratings, visit our website at [windsorwindows.com](http://windsorwindows.com) and click on "Professional Information" in the menu bar

## Certification

Performance rated to DP 50 overall; structural rating exceeds DP 50. Florida Building Commission approved; exception Dade-Broward small missile

Visit [floridabuilding.org](http://floridabuilding.org) for more information; including section details and installation





# Pinnacle Options & Accessories

## Standard Clad Colors

										
White	Linen	Ivory	Sandstone	Clay	Tan	Sage Brown	Walnut	Desert Dust	Bronze	Appalachian Brown
										
Red River Rouge	Cinnamon	Sage Green	Hunter Green	Military Blue	Clear	Dove Gray	Slate Gray	Charcoal Gray	Sable	Black

## Feature Clad Colors

Custom color matching is also available.

									
French Vanilla	Burnt Sun	Pueblo Tan	Dijon	Beige	Coastal Tan	Sierra Tan	Putty	Antique Bronze	Sunflower
									
Burnt Pumpkin	Copper	Brick Red	Redwood	Boysenberry	Patina Green	Camarillo Green	Midnight Blue	Stormy Monday	Dark Bronze



## Anodized Finishes



Clear

Champagne

Light Bronze

Medium Bronze

Dark Bronze

Extra Dark Bronze

Black

Copper

## Interior Finishes



Clear Select Pine

Douglas Fir

Natural Alder

Primed

Painted White

## Radius Interior Trim

Custom-fitted wood trim for radius-shaped windows and radius-top doors is available in five moulding styles. All styles are available in Clear Select Pine, Oak, Douglas Fir and Natural Alder.



WM 324 • 2-1/4"  
*Shown in Clear Select Pine*

WM 346 • 2-1/4"  
*Shown in Clear Select Pine*

WM 356 • 2-1/4"  
*Shown in Oak*

WM 366 • 2-1/4"  
*Shown in Douglas Fir*

WM 444 • 3-1/2"  
*Shown in Natural Alder*

## Casement Crank and Finishes



Champagne

White

Bronze

Black



Faux Bronze

Oil Rubbed  
Bronze

Satin Nickel

Bright Brass

## Double Hung Lock and Finishes



Champagne

White

Bronze

Black



Faux Bronze

Oil Rubbed  
Bronze

Satin Nickel

Bright Brass

**NOTE:** Printing limitations prevent exact color/finish representation. See your Windsor distributor for actual samples.

pinnacle options & accessories

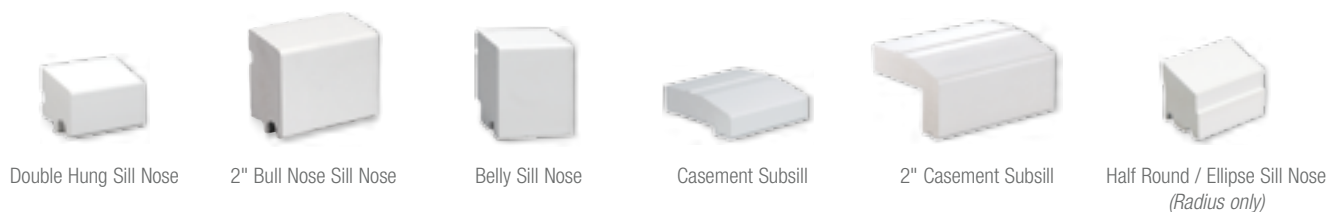
## Glass *\*Special order item*

Units with 1-1/4" OA triple IG are only available in LoE 366/180, obscure, satin etch, glue chip, rain and reed glass.



## Exterior Trim

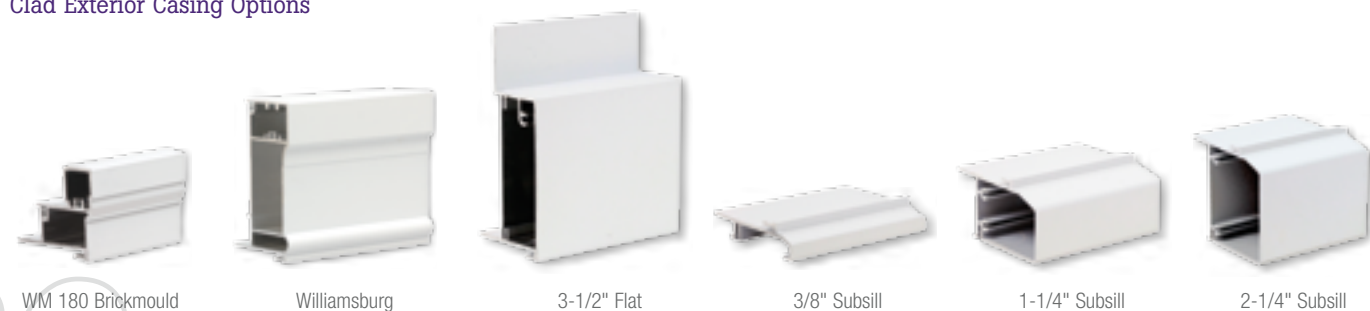
### Cellular PVC Exterior Sill Options (Primed only)



### Cellular PVC Exterior Casing Options (Primed only)



### Clad Exterior Casing Options





## Grilles

All of our wood and cellular PVC (CPVC) Windsor Divided Lite bars are hand-fitted to ensure a perfect fit.



7/8" & 1-1/4"  
Perimeter Grille



7/8" & 1-1/4"  
Stick Grille



3/4" & 1"  
Profiled Inner Grille



13/16" Flat Inner Grille  
(Not available on Select)



7/8" & 1-1/4"  
Interior Wood  
Windsor Divided Lite



7/8" & 1-1/4"  
Exterior Clad  
Windsor Divided Lite



7/8" & 1-1/4"  
Exterior CPVC  
Windsor Divided Lite  
(Primed only)



5/8" & 7/8" Tall Putty  
Windsor Divided Lite



5/8" & 7/8" Short Putty  
Windsor Divided Lite



2" Tall Putty  
Simulated Check Rail



2" Exterior Low Profile  
Simulated Check Rail

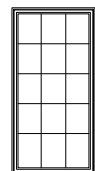


2" CPVC Simulated  
Check Rail (Primed only)

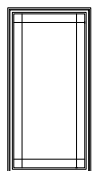
## Grille Patterns

Some grille patterns are not available in all configurations and products.

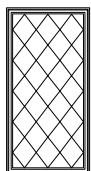
### Casement Grille Patterns



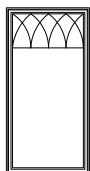
Colonial



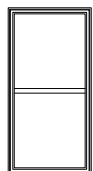
Prairie



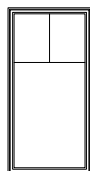
Diamond



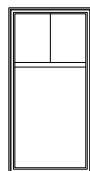
Gothic



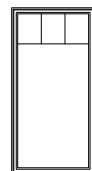
Simulated  
Check Rail



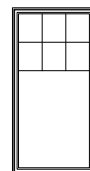
Custom  
Plaza



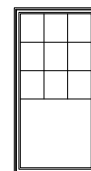
Custom Plaza  
with 2" Bar



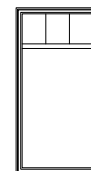
Single  
Plaza



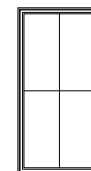
Double  
Plaza



Triple  
Plaza

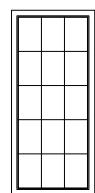


Plaza with  
2" Bar

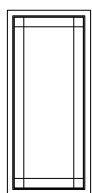


Specified  
Equal Lite  
(2x2 shown)

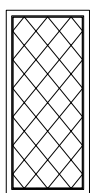
### Patio Door Grille Patterns



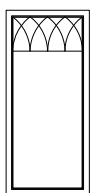
Colonial



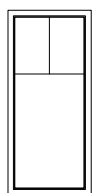
Prairie



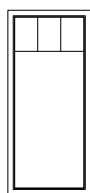
Diamond



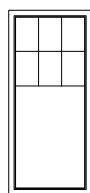
Gothic



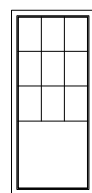
Custom  
Plaza



Single  
Plaza



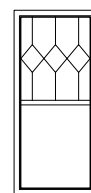
Double  
Plaza



Triple  
Plaza

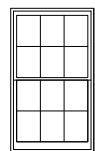


Specified  
Equal Lite  
(2x2 shown)

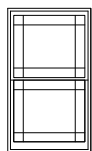


Custom  
Pattern  
(Example)

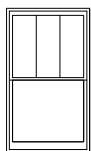
### Double Hung Grille Patterns



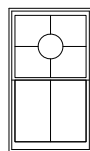
Colonial



Prairie



Plaza



Custom Pattern  
(Example)

### Grille Widths



5/8"



7/8"



1-1/4"



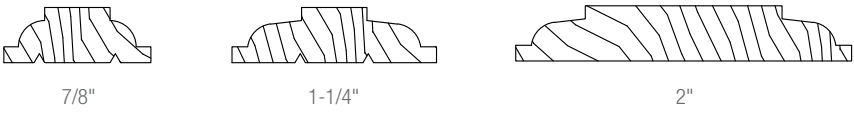
2"

**NOTE:** Printing limitations prevent exact color/finish representation. See your Windsor distributor for actual samples.

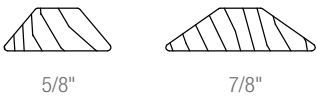
pinnacle options & accessories

# Grille Profiles

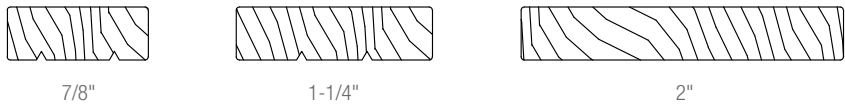
## Interior Grilles – Ogee



## Interior Grilles – Putty



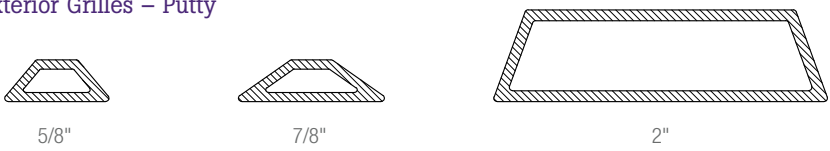
## Interior Grilles – Contemporary



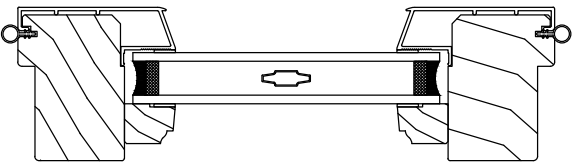
## Exterior Grilles – Ogee



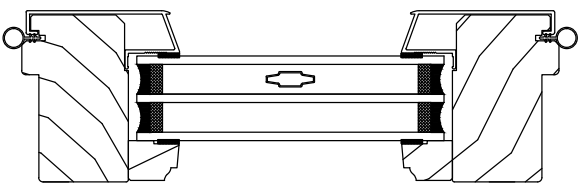
## Exterior Grilles – Putty



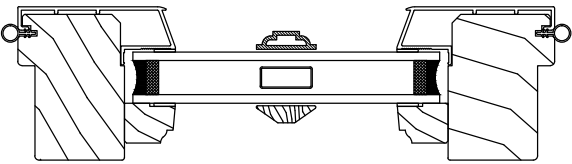
# Grille Sections



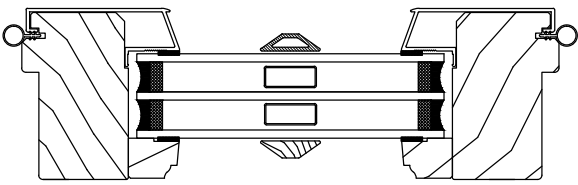
Standard Select IG with Inner Grille



Triple IG with Inner Grille

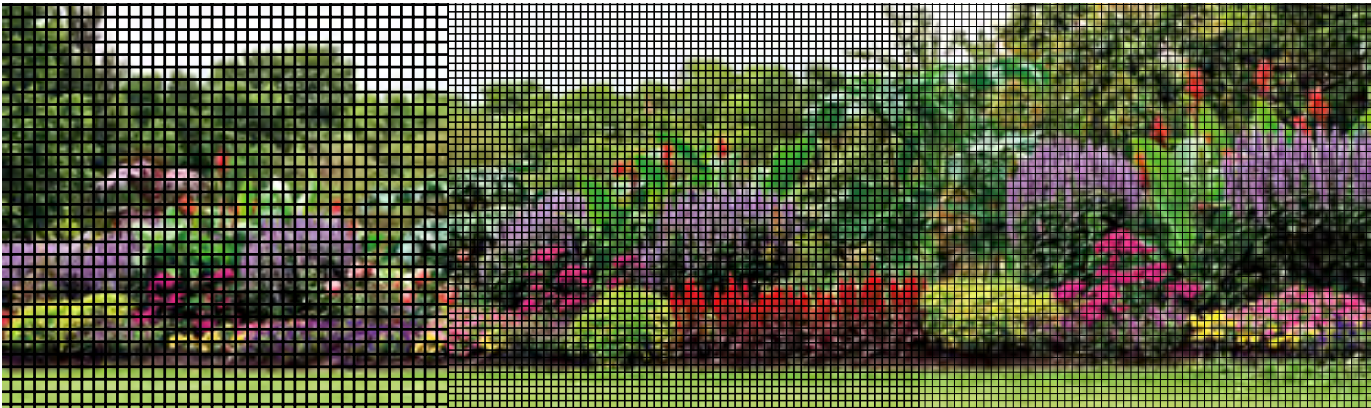


Standard Select IG with WDL and Inner Bar



Triple IG with WDL and Inner Bar

# Screens



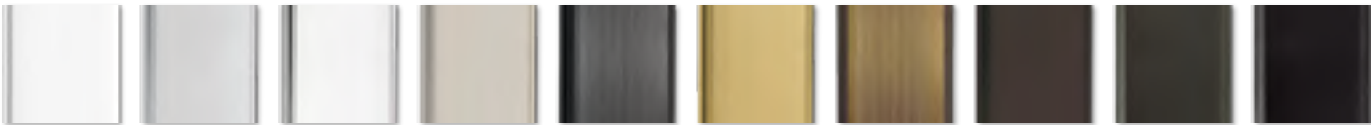
Conventional Screen Mesh

BetterVue® (Standard)

UltraVue®

# Patio Door Handle and Hinge Finishes

Finishes marked with (\*) feature a clear coating that protects the finish against tarnishing and peeling. It extends the rich, bright life of the finish and dramatically delays the aging process.



White

Brushed  
Chrome\*

Polished  
Chrome\*

Satin Nickel\*

Antique Nickel

Brass\*

Antique Brass

Faux Bronze

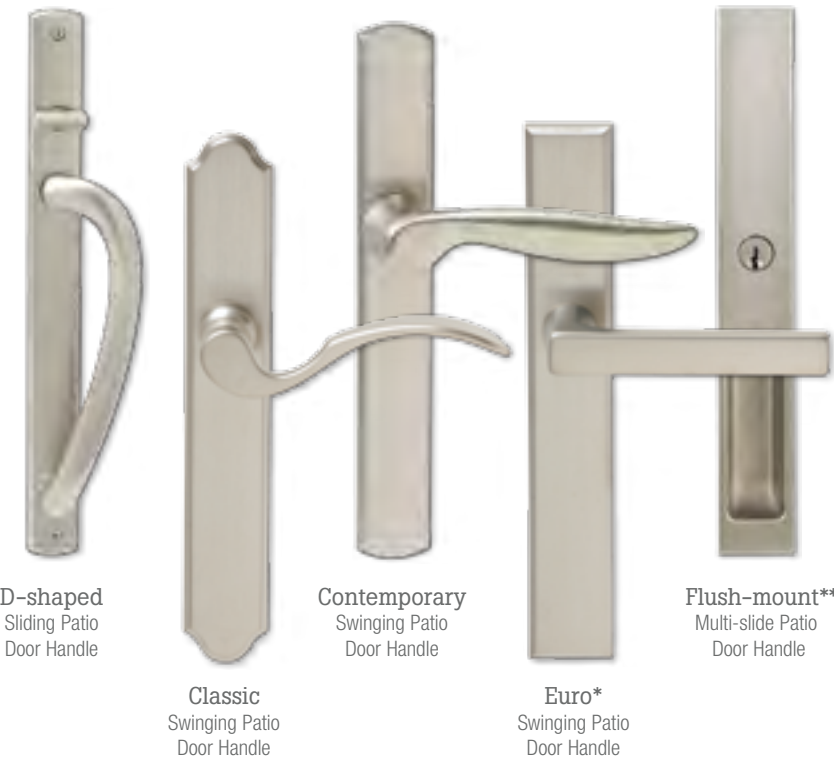
Oil Rubbed  
Bronze

Black

# Patio Door Handles

\*Euro handle is only available in satin nickel and black.

\*\*Flush-mount handle is only available in satin nickel, faux bronze, oil rubbed bronze and black.



D-shaped  
Sliding Patio  
Door Handle

Classic  
Swinging Patio  
Door Handle

Contemporary  
Swinging Patio  
Door Handle

Euro\*  
Swinging Patio  
Door Handle

Flush-mount\*\*  
Multi-slide Patio  
Door Handle

# Swinging Patio Door Hinges



Adjustable Guide Hinge

Adjustable Set Hinge

Ball Bearing Hinge

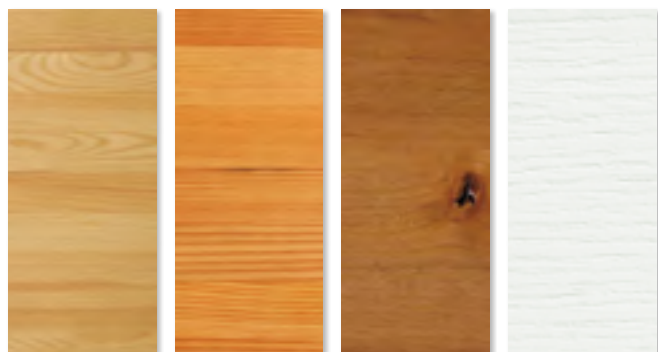
**NOTE:** Printing limitations prevent exact color/finish representation. See your Windsor distributor for actual samples.

pinnacle options & accessories



# Pinnacle Select Options & Accessories\*

## Interior Finishes



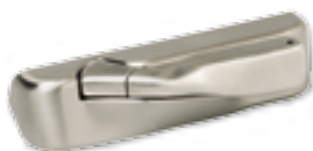
Clear Select Pine

Douglas Fir

Natural Alder

Primed

## Operating (Crank) Hardware and Finishes



Champagne

White

Bronze

Black

Faux Bronze



Oil Rubbed  
Bronze

Satin Nickel

Bright Brass

## Push-out (Lever) Hardware and Finishes



White

Black

Faux Bronze

Oil Rubbed  
Bronze

Satin Nickel

## Clad Exterior Trim



WM 180 Brickmould

Williamsburg

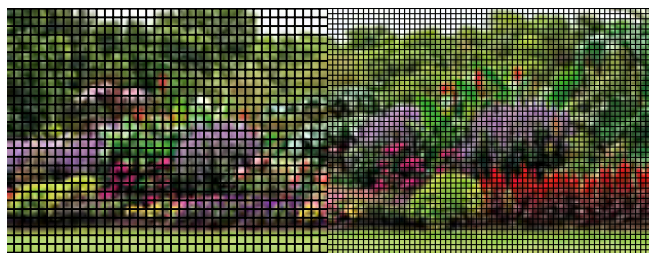
3-1/2" Flat

3/8" Subsill

1-1/4" Subsill

2-1/4" Subsill

## Retractable Screens



Conventional Screen Mesh

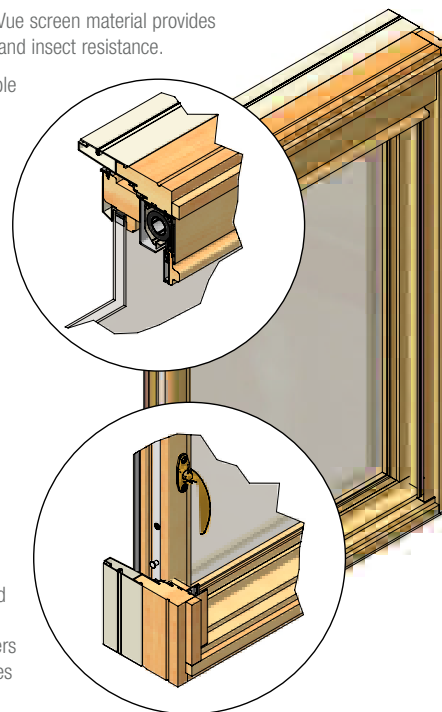
BetterVue®

Windsor's standard BetterVue screen material provides improved visibility, airflow and insect resistance.

Operating units are available with a standard screen or a retractable screen option. Standard screens are pressure mounted to fit within the frame of the window and are easily installed and removed.

Push-out casements and awnings are available with a retractable screen.

Retractable screens are available in pine, alder and fir wood species and have a solid wood pull at the bottom of the screen for easy operation. These spring-loaded units pull down from the top and lock into place at the sill. All interior tracks and covers come standard with species matched wood veneer.



**\*Pinnacle Select utilizes the same standard colors, feature colors, anodized finishes, glass and grilles as standard Pinnacle products. (See pages 18-22 for options.)**

# Legend

**Give your home legendary beauty and quality with Windsor's Legend product line. These finely crafted windows provide your home with the look and feel of painted wood, but provide the outstanding, long-lasting performance of cellular PVC.**

## Features and Benefits

- Engineered, high-endurance cellular PVC materials will not decay, warp, crack, stick or swell
- UV protectors and impact modifiers incorporated into cellular PVC material enhance durability
- Finely crafted details, like sloped sill with sill nosing, offer traditional beauty and solid density of real wood
- Solid cellular PVC construction carries 25-year guarantee
- High-performance option available
- Energy efficient double hung balance allows top and bottom sashes to tilt for easy cleaning
- Easy installation with nails or screws
- Perfect for new construction or replacement of double hung windows; approved for historic renovation
- Integral finger pulls in double hung top and bottom sash offer easy opening and closing
- No-finger pull option in bottom sash for traditional or historical appearance
- Standard EZ Tilt operation on both the top and bottom sash; both sashes tilt in for easy cleaning
- Block and tackle balance on standard EZ Tilt is quiet, secure and operates smoothly
- Interlocking meeting rails for enhanced air and structural performance
- Dual-seal weatherstrip at bottom end rail
- PVC cap stock sash, sill and exterior stops
- Taller double hung exterior stops fully hide edge of jambliner

## Sizes

Available in hundreds of standard and custom sizes

## Glazing

- Windsor Glazing System provides 3/4" double pane insulated glass; Cardinal® LoE 366 glass standard; tinted, tempered, obscure and laminated glass available
- Interior stop glazed with silicone
- Custom and special glass types available

## Grilles

*Windsor Divided Lite (WDL) = simulated divided lite*

- 3/4" and 1" profiled inner grille
- 13/16" flat inner grille
- 7/8" and 1-1/4" WDL
- 5/8" and 7/8" tall putty WDL
- 5/8" and 7/8" short putty WDL
- 2" CPVC simulated check rail
- Standard and custom grille patterns available

## Finishes

- Interior and exterior trim can be painted; for exterior applications, do not use paint with an LRV rating of 54 or lower (See Windsor's Care and Use Guide for details)

## Hardware

- Casement crank available in champagne, white, bronze and black; optional finishes in faux bronze, oil rubbed bronze, satin nickel and bright brass
- Double hung recessed lock, keeper and bottom sash tilt latch offered in white only

## Exterior Trim

- WM 180 brickmould (*standard*)
- WM 180 brickmould with flange
- Williamsburg
- 3-1/2" flat
- 4-1/2" backband
- 5-1/2" flat
- Plantation
- Double hung sill nose
- 2" bull nose sill nose
- Belly sill nose
- Casement subsill
- 2" casement subsill
- Half round/ellipse sill nose (*radius only*)

## Performance Ratings and Certification

For current performance ratings, visit our website at [windsorwindows.com](http://windsorwindows.com) and click on "Professional Information" in the menu bar

For Florida Building Commission approvals, including section and installation details, go to [floridabuilding.org](http://floridabuilding.org)



# Legend HBR

**Windsor's finely crafted windows combine the traditional beauty of our Legend frame and low-maintenance aluminum clad sash with a stain-grade wood interior.**

## Features and Benefits

- [1]** 25-year CPVC warranty against rotting, warping, cracking or swelling
- [2]** Cellular PVC exterior with extruded clad sash
- [3]** Extruded aluminum in 22 standard colors, 20 feature colors and eight anodized finishes; custom colors also available
- [4]** Architectural trim available in a variety of CPVC casing and sill options, providing a historically accurate appearance
- [5]** Factory-applied trim details save significant time and cost
- [6]** Rough openings are identical to standard Legend windows, making it easy to mix and match on the same job
- [7]** Standard EZ Tilt operation on both the top and bottom sash; both sashes tilt in for easy cleaning
- [8]** Block and tackle balance on standard EZ Tilt is quiet, secure and operates smoothly
- [9]** High-performance option available

## Sizes

Available in hundreds of standard and custom sizes

## Glazing

- Windsor Glazing System provides 3/4" double pane insulated glass; Cardinal® LoE 366 glass standard; tinted, tempered, obscure and laminated glass available
- Interior stop glazed with silicone
- Custom and special glass types available

## Exterior Trim

- Units available with WM 180 brickmould, WM 180 brickmould with flange, Williamsburg, 3-1/2" flat, 4-1/2" backband, 5-1/2" flat or plantation casing; double hung sill nose, 2" bull nose sill nose, belly sill nose, casement subsill, 2" casement subsill or half round/ellipse sill nose

## Grilles

*Windsor Divided Lite (WDL) = simulated divided lite*

- 7/8" and 1-1/4" perimeter grille
- 7/8" and 1-1/4" stick grille
- 3/4" and 1" profiled inner grille
- 13/16" flat inner grille
- 7/8" and 1-1/4" interior wood WDL
- 7/8" and 1-1/4" exterior clad WDL
- 5/8" and 7/8" tall putty WDL
- 5/8" and 7/8" short putty WDL
- 2" tall putty simulated check rail
- 2" exterior low profile simulated check rail
- WDL aluminum clad exteriors come with stain-grade wood or CPVC for primed interiors
- Standard and custom grille patterns available

## Finishes

- Interior – Available in Clear Select Pine, primed or painted white interior finishes
- Exterior – Clad products feature heavy-duty extruded aluminum cladding on sash and frame; primed products offer an assortment of traditional trim options
- *Patio door frames are primed wood*

## Clad Colors

All clad colors painted in-house with the highly durable AAMA 2604 standard finish, or upgrade to AAMA 2605 for the most challenging of environments

- 22 standard colors
- 20 feature colors; custom colors available
- 8 anodized finishes

## Window Hardware

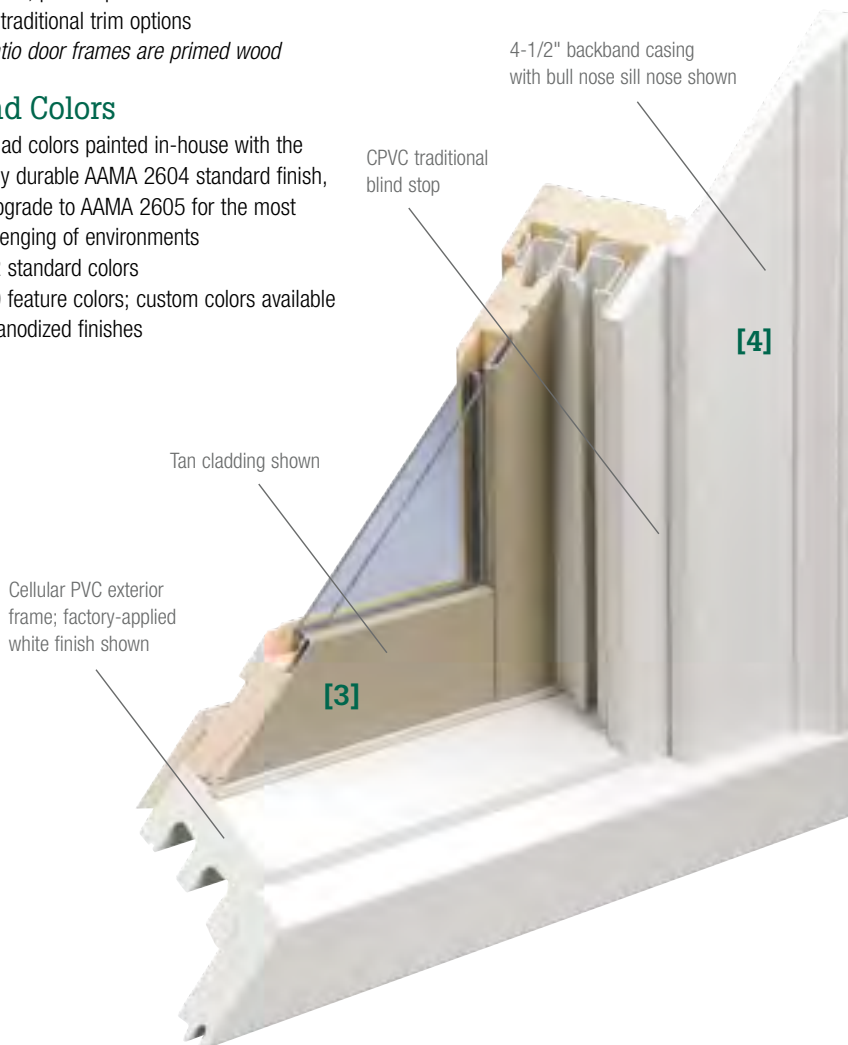
Casement and double hung hardware available in champagne, white, bronze and black; optional finishes in faux bronze, oil rubbed bronze, satin nickel and bright brass

## Sliding Patio Door Hardware

D-shaped handle available in white, brushed chrome, polished chrome, satin nickel, antique nickel, brass, antique brass, faux bronze, oil rubbed bronze and black

## Performance Ratings

For current performance ratings, visit our website at [windsorwindows.com](http://windsorwindows.com) and click on "Professional Information" in the menu bar



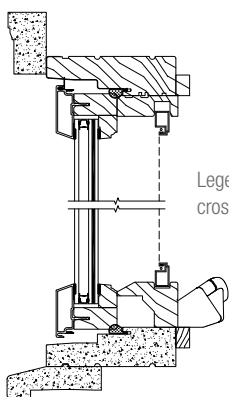


# Legend HBR Impact featuring Seastorm™ Glass

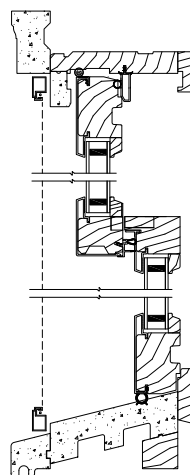
**Legend HBR Impact is available in casement, casement picture, casement transom, awning, double hung and double hung picture. True Legend Impact is available in direct set and radius.**

## Features and Benefits

- 25-year CPVC warranty against rotting, warping, cracking or swelling
- Cellular PVC exterior with extruded clad sash
- Extruded aluminum in 22 standard colors, 20 feature colors and eight anodized finishes; custom colors also available
- Architectural trim available in a variety of CPVC casing and sill options, providing a historically accurate appearance
- Factory-applied trim details save significant time and cost
- Rough openings are identical to standard Legend windows, making it easy to mix and match on the same job
- Standard EZ Tilt operation on both the top and bottom sash; both sashes tilt in for easy cleaning
- Block and tackle balance on standard EZ Tilt is quiet, secure and operates smoothly
- Certified, proven-safe solution against hurricane blasts; laminated glass allows window to crack instead of shatter when under great pressure
- Meets and exceeds modern building codes for the coast's extreme environmental conditions
- Dampens sounds from traffic, neighbors and the outdoors
- Resistant to interior fading from constant sunlight
- Offers security against intruders with shatterproof and cutter-deterring glass



Legend HBR casement cross-section



Legend HBR double hung cross-section

## Sizes

Available in hundreds of standard and custom sizes

## Glazing

- Glazed with tape and Dow Corning® 955 silicone sealant – the strongest silicone bonding agent available
- Cardinal SeaStorm™ LoE 366 insulated glass standard, featuring stainless steel spacers; tinted, tempered and laminated glass available
- Custom and special glass types available
- Insulated glass utilizes annealed glass on exterior and laminated glass on interior
- Laminated glass features PVB inner layer on units up to 26 square feet and SGP inner layer on units over 26 square feet

## Exterior Trim

- Units available with WM 180 brickmould, WM 180 brickmould with flange, Williamsburg, 3-1/2" flat, 4-1/2" backband, 5-1/2" flat or plantation casing; double hung sill nose, 2" bull nose sill nose, belly sill nose, casement subsill, 2" casement subsill or half round/ellipse sill nose

## Grilles

*Windsor Divided Lite (WDL) = simulated divided lite*

- 7/8" and 1-1/4" perimeter grille
- 7/8" and 1-1/4" stick grille
- 3/4" and 1" profiled inner grille
- 13/16" flat inner grille
- 7/8" and 1-1/4" interior wood WDL
- 7/8" and 1-1/4" exterior clad WDL
- 5/8" and 7/8" tall putty WDL
- 5/8" and 7/8" short putty WDL
- 2" tall putty simulated check rail
- 2" exterior low profile simulated check rail
- WDL aluminum clad exteriors come with stain-grade wood or CPVC for primed interiors
- Standard and custom grille patterns available

## Finishes

- Interior – Available in Clear Select Pine, primed or painted white interior finishes
- Exterior – Clad products feature heavy-duty extruded aluminum cladding on sash and frame; primed products offer an assortment of traditional trim options

## Clad Colors

All clad colors painted in-house with the highly durable AAMA 2604 standard finish, or upgrade to AAMA 2605 for the most challenging of environments

- 22 standard colors
- 20 feature colors; custom colors available
- 8 anodized finishes

## Hardware

Available in champagne, white, bronze and black; optional finishes in faux bronze, oil rubbed bronze, satin nickel and bright brass

## Performance Ratings

For current performance ratings, visit our website at [windsorwindows.com](http://windsorwindows.com) and click on "Professional Information" in the menu bar

## Certification

Performance rated to DP 50 overall; structural rating exceeds DP 50. Florida Building Commission approved; exception Dade-Broward small missile

Visit [floridabuilding.org](http://floridabuilding.org) for more information; including section details and installation

LEGEND DOUBLE HUNG WINDOWS FEATURING 4-1/2"  
BACKBAND CASING WITH BULL NOSE SILL NOSE.  
Beaufort, South Carolina.



# Legend Options & Accessories

## Standard Clad Colors (Legend HBR)

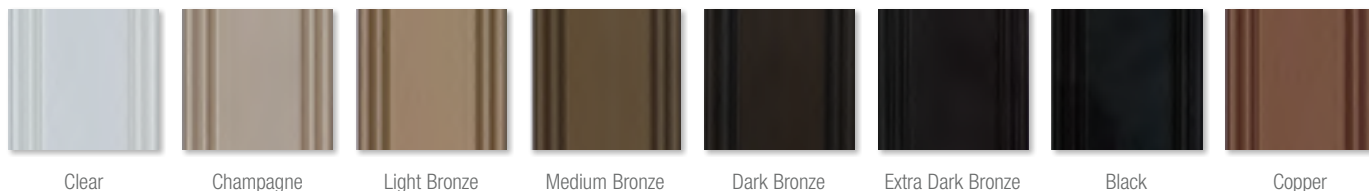
White	Linen	Ivory	Sandstone	Clay	Tan	Sage Brown	Walnut	Desert Dust	Bronze	Appalachian Brown
Red River Rouge	Cinnamon	Sage Green	Hunter Green	Military Blue	Clear	Dove Gray	Slate Gray	Charcoal Gray	Sable	Black

## Feature Clad Colors (Legend HBR)

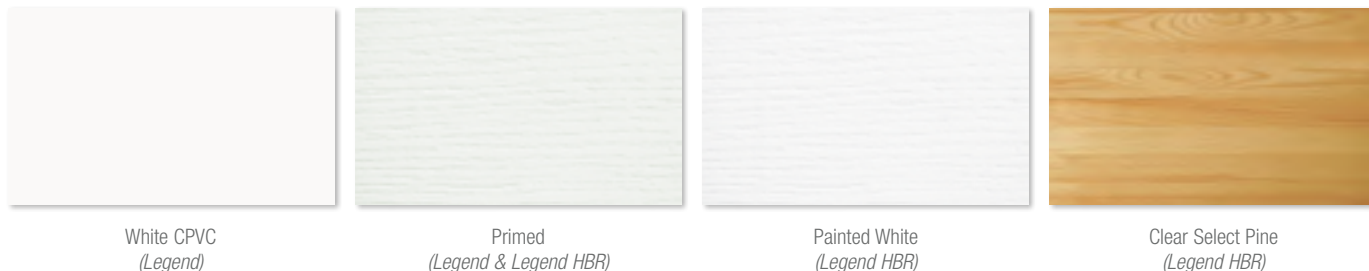
Custom color matching is also available.

French Vanilla	Burnt Sun	Pueblo Tan	Dijon	Beige	Coastal Tan	Sierra Tan	Putty	Antique Bronze	Sunflower
Burnt Pumpkin	Copper	Brick Red	Redwood	Boysenberry	Patina Green	Camarillo Green	Midnight Blue	Stormy Monday	Dark Bronze

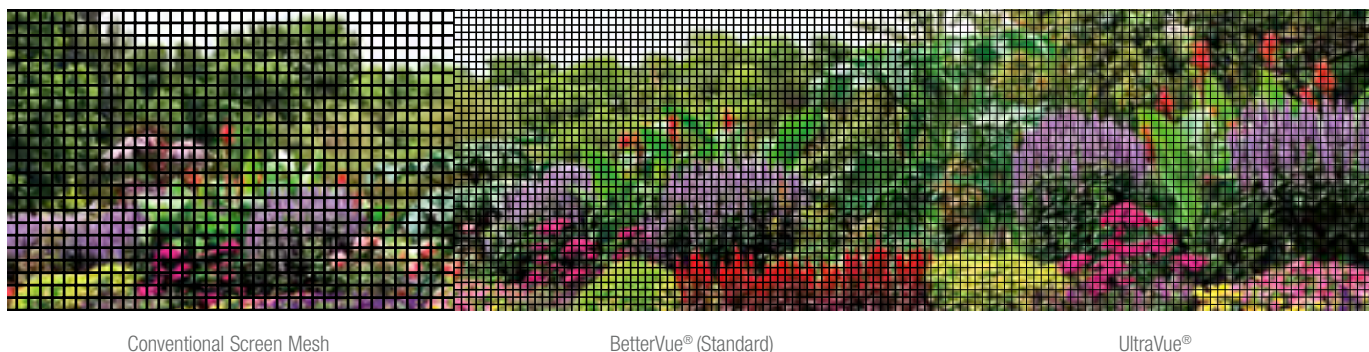
## Anodized Finishes (Legend HBR)



## Interior Finishes



## Screens



## Casement Crank and Finishes

The casement crank is available in all eight finishes.



## Double Hung Lock and Finishes

The Legend HBR double hung lock is available in all eight finishes; the Legend double hung lock is only available in champagne, white, bronze, faux bronze and satin nickel.

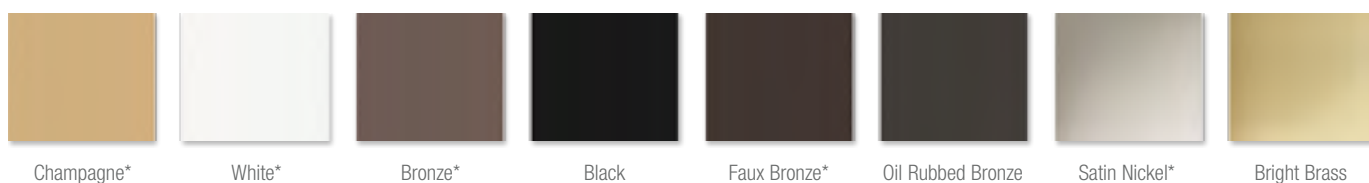


Legend HBR



Legend

\*Available finishes



**NOTE:** Printing limitations prevent exact color/finish representation. See your Windsor distributor for actual samples.

legend options & accessories



## Glass

\*Special order item



LoE 366 (Standard)



Dual Low-E



LoE 240



LoE 272



Clear



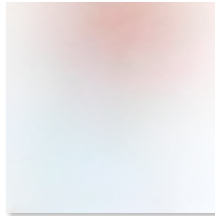
Gray Tint



Bronze Tint



Obscure



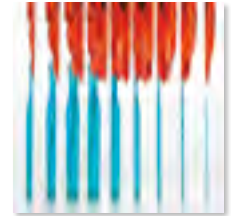
Satin Etch



Glue Chip\*

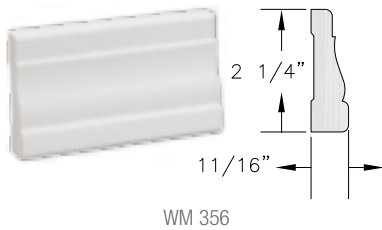


Rain\*



Reed\*

## Radius Interior Cellular PVC Trim (Legend)



WM 356

## Radius Interior Wood Trim (Legend HBR)

Custom-fitted wood trim for Legend HBR radius-shaped windows and radius-top doors is available in five moulding styles. These wood styles are available in Clear Select Pine, Oak, Douglas Fir and Natural Alder.



WM 324 • 2-1/4"  
Shown in Pine



WM 346 • 2-1/4"  
Shown in Pine



WM 356 • 2-1/4"  
Shown in Oak



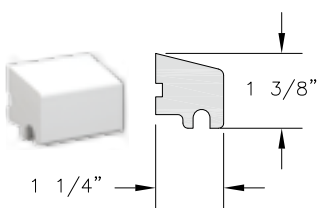
WM 366 • 2-1/4"  
Shown in Fir



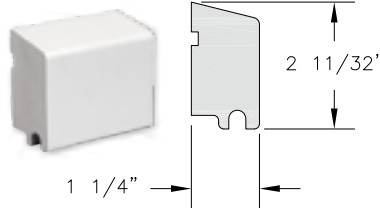
WM 444 • 3-1/2"  
Shown in Alder

## Exterior Trim

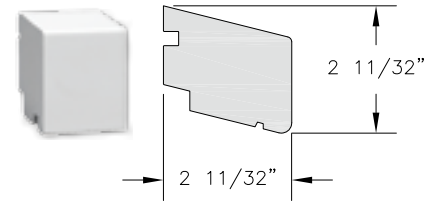
### Cellular PVC Exterior Sill Options



Double Hung Sill Nose

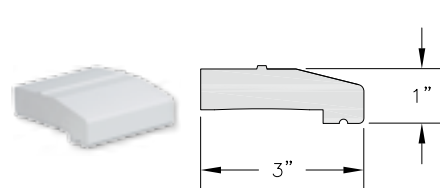


2" Bull Nose Sill Nose

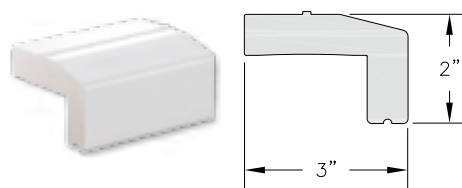


Belly Sill Nose

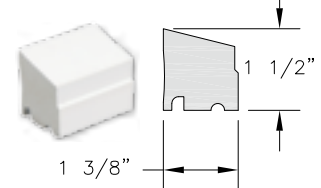
### Cellular PVC Exterior Sill Options



Casement Subsill



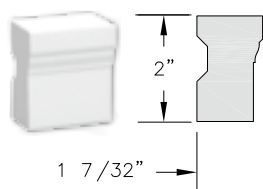
2" Casement Subsill



Half Round / Ellipse Sill Nose (Radius only)

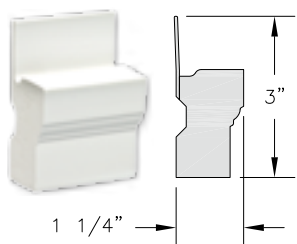
## Exterior Trim

### Cellular PVC Exterior Casing Options



WM 180 Brickmould

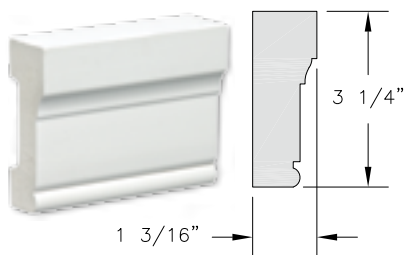
### Cellular PVC Exterior Casing Options



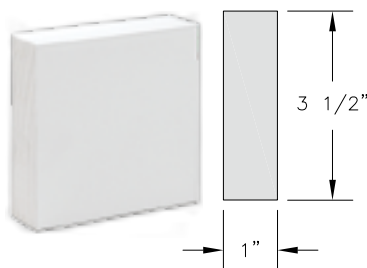
WM 180 Brickmould with Flange



### Cellular PVC Exterior Casing Options

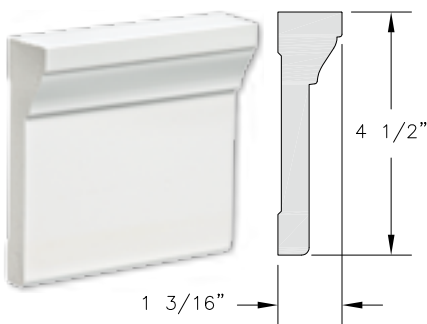


Williamsburg

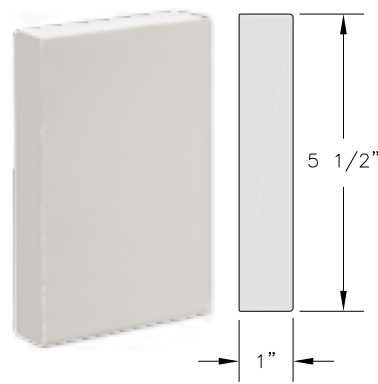


3-1/2" Flat

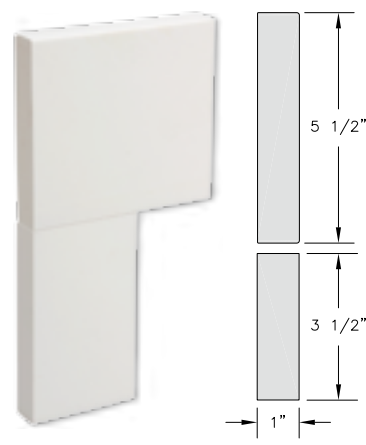
### Cellular PVC Exterior Casing Options



4-1/2" Backband



5-1/2" Flat



Plantation (3-1/2" Side; 5-1/2" Head)

**NOTE:** Printing limitations prevent exact color/finish representation. See your Windsor distributor for actual samples.

legend options & accessories

## Grilles

All of our wood and cellular PVC Windsor Divided Lite (WDL) bars are hand-fitted to ensure a perfect fit. Tall and short bars are available on casement and direct set. Short bars are available on double hung and patio doors.



7/8" Perimeter Grille  
(Legend HBR)



7/8" Stick Grille  
(Legend HBR)



1-1/4" Perimeter Grille  
(Legend HBR)



1-1/4" Stick Grille  
(Legend HBR)



3/4" Profiled Inner Grille  
(Legend & Legend HBR)



1" Profiled Inner Grille  
(Legend & Legend HBR)



13/16" Flat Inner Grille  
(Legend & Legend HBR)



7/8" Interior Wood  
Windsor Divided Lite  
(Legend HBR)



7/8" Exterior Clad  
Windsor Divided Lite  
(Legend HBR)



7/8" Windsor  
Divided Lite  
(Legend)



1-1/4" Interior Wood  
Windsor Divided Lite  
(Legend HBR)



1-1/4" Exterior Clad  
Windsor Divided Lite  
(Legend HBR)



1-1/4" Windsor  
Divided Lite  
(Legend)



5/8" Tall Putty  
Windsor Divided Lite  
(Legend & Legend HBR)



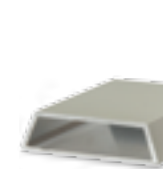
5/8" Short Putty  
Windsor Divided Lite  
(Legend & Legend HBR)



7/8" Tall Putty  
Windsor Divided Lite  
(Legend & Legend HBR)



7/8" Short Putty  
Windsor Divided Lite  
(Legend & Legend HBR)



2" Tall Putty  
Simulated Check Rail  
(Legend HBR)

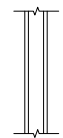


2" Exterior Low Profile  
Simulated Check Rail  
(Legend HBR)

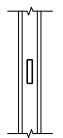


2" CPVC Simulated  
Check Rail  
(Legend)

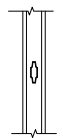
## Grille Profiles



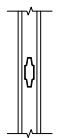
Standard  
Insulating Glass



13/16" Inner Grille



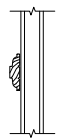
3/4" Profiled  
Inner Grille



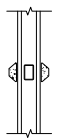
1" Profiled  
Inner Grille



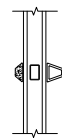
7/8" Stick &  
Perimeter Grille



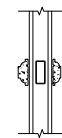
1-1/4" Stick &  
Perimeter Grille



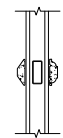
Legend 5/8" Short Putty WDL  
w/ Inner Bar



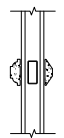
Legend 5/8" Tall Putty WDL  
w/ Inner Bar



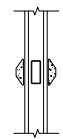
Legend 7/8" Ogee WDL  
w/ Inner Bar



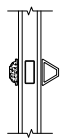
Legend 7/8" Short Putty & Ogee WDL  
w/ Inner Bar



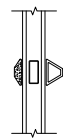
Legend 7/8" Ogee & Short Putty WDL  
w/ Inner Bar



Legend 7/8" Short Putty WDL  
w/ Inner Bar



Legend 7/8" Ogee & Tall Putty WDL  
w/ Inner Bar



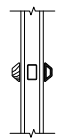
Legend 7/8" Short & Tall Putty WDL  
w/ Inner Bar



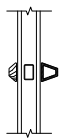
Legend 1-1/4" Ogee WDL  
w/ Inner Bar



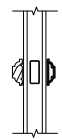
Legend 2" Ogee WDL  
w/ Inner Bar



Legend HBR 5/8" Short Putty WDL  
w/ Inner Bar



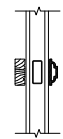
Legend HBR 5/8" Short & Tall Putty WDL  
w/ Inner Bar



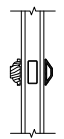
Legend HBR 7/8" Ogee WDL  
w/ Inner Bar



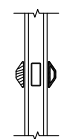
Legend HBR 7/8" Short Putty & Ogee WDL  
w/ Inner Bar



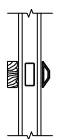
Legend HBR 7/8" Contemporary & Ogee WDL  
w/ Inner Bar



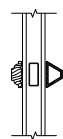
Legend HBR 7/8" Ogee & Short Putty WDL  
w/ Inner Bar



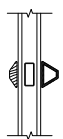
Legend HBR 7/8" Short Putty WDL  
w/ Inner Bar



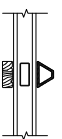
Legend HBR 7/8" Contemporary & Short Putty WDL  
w/ Inner Bar



Legend HBR 7/8" Ogee & Tall Putty WDL  
w/ Inner Bar



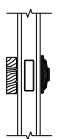
Legend HBR 7/8" Tall Putty WDL  
w/ Inner Bar



Legend HBR 7/8" Contemporary & Tall Putty WDL  
w/ Inner Bar



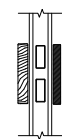
Legend HBR 1-1/4" Ogee WDL  
w/ Inner Bar



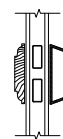
Legend HBR 1-1/4" Contemporary & Ogee WDL  
w/ Inner Bar



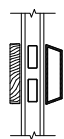
Legend HBR 2" Ogee WDL  
w/ Inner Bar



Legend HBR 2" Contemporary WDL  
w/ Inner Bar



Legend HBR 2" Ogee & Putty WDL  
w/ Inner Bar



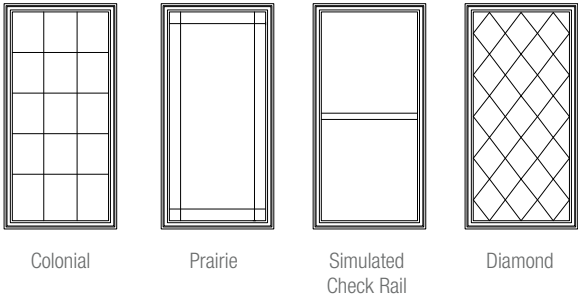
Legend HBR 2" Contemporary & Putty WDL  
w/ Inner Bar



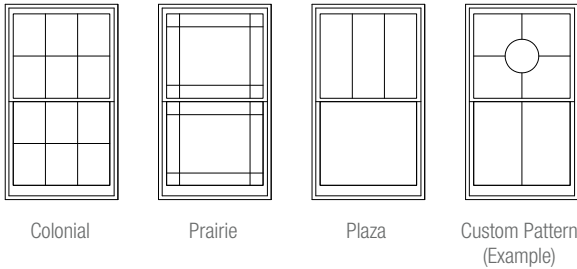
# Grille Patterns

Some grille patterns are not available in all configurations and products.

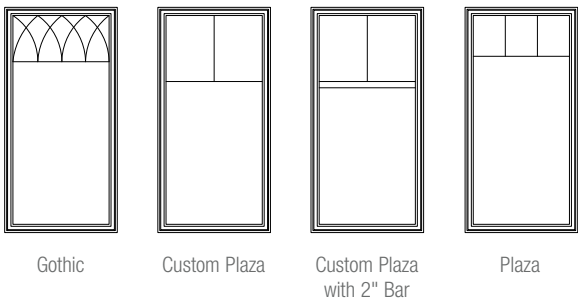
## Casement Grille Patterns



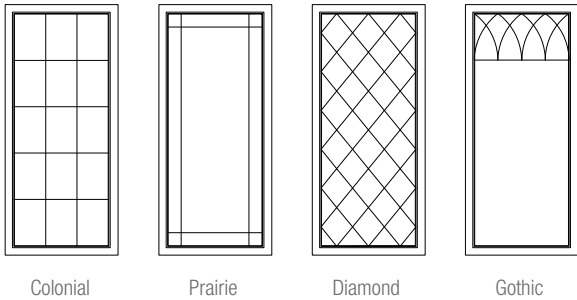
## Double Hung Grille Patterns



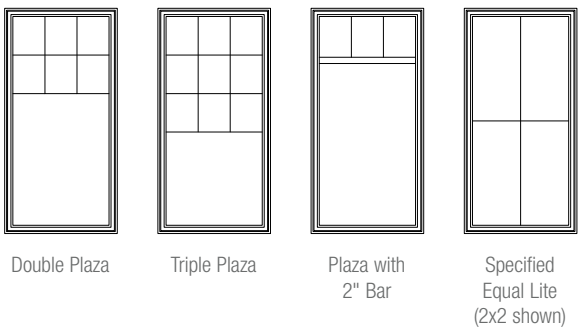
## Casement Grille Patterns



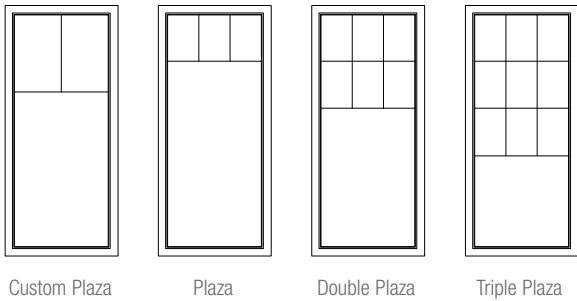
## Patio Door Grille Patterns



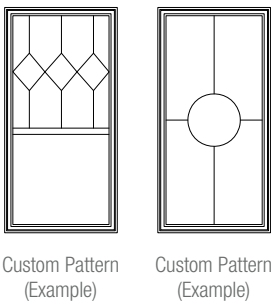
## Casement Grille Patterns



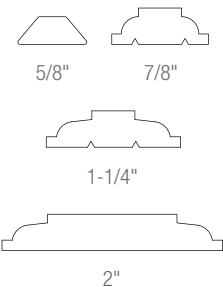
## Patio Door Grille Patterns



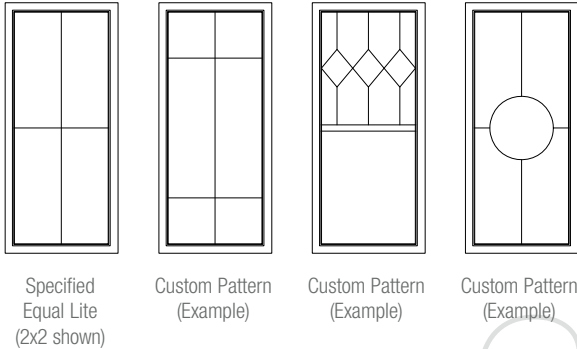
## Casement Grille Patterns



## Grille Widths

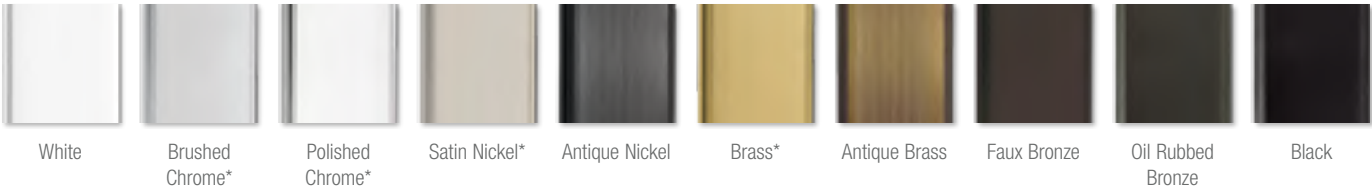


## Patio Door Grille Patterns



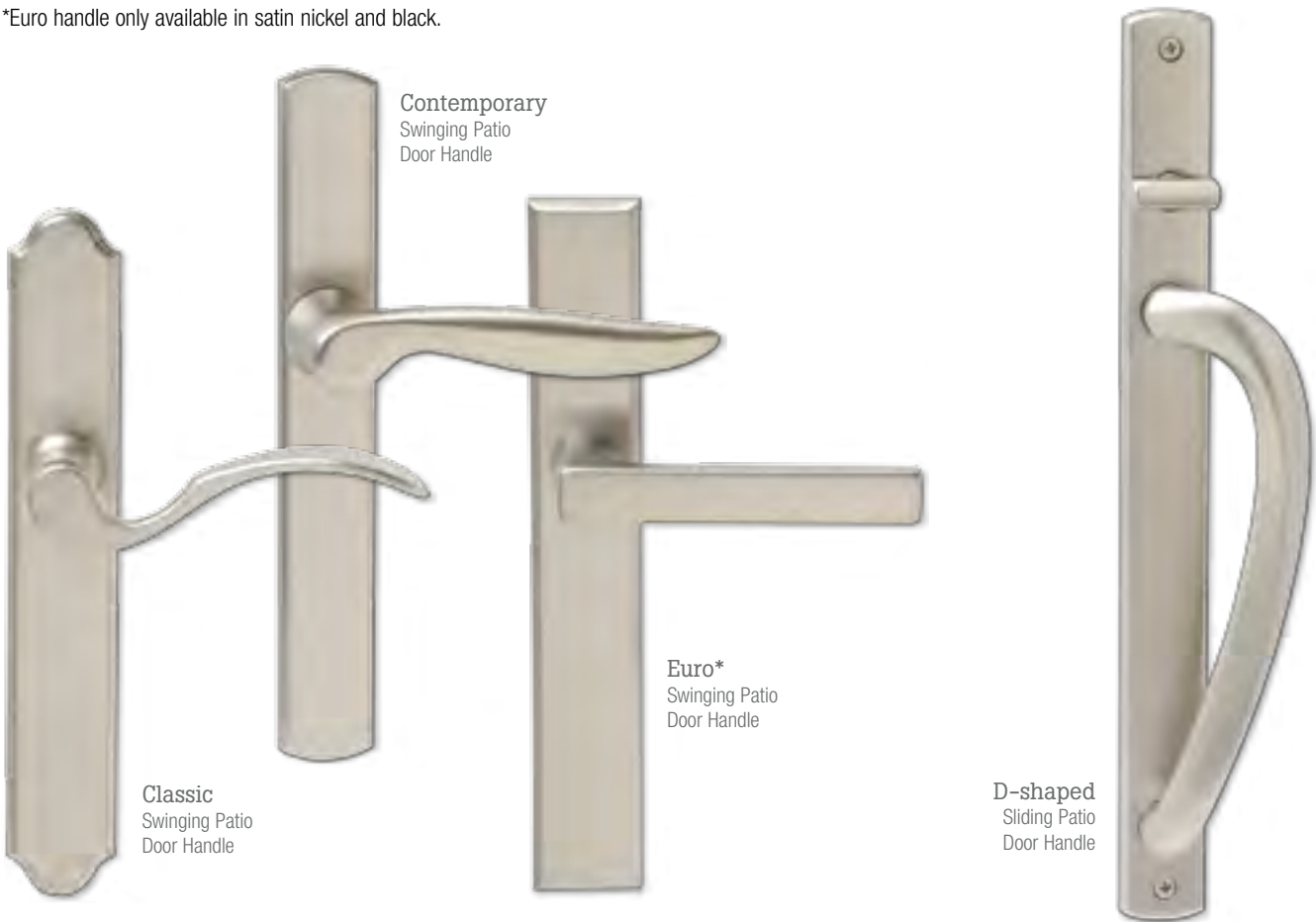
## Patio Door Handle and Hinge Finishes

Finishes marked with (\*) feature a clear coating that protects the finish against tarnishing and peeling. It extends the rich, bright life of the finish and dramatically delays the aging process.



## Patio Door Handles

\*Euro handle only available in satin nickel and black.



## Swinging Patio Door Hinges







LEGEND DOUBLE HUNG AND DIRECT SET WINDOWS WITH WM 180 BRICKMOULD, STANDARD SILL NOSING AND CUSTOM SEGMENT HEAD APPLIED IN THE FIELD. Charlotte, North Carolina.



# Next Dimension Classic

## Features and Benefits

- Thick, multi-chambered vinyl extrusions are optimized for superior weathering, durability and color retention
- 4" frame width on double hungs and 3-7/16" frame width on single hungs and sliders with integral extruded nail fin for strength and ease of installation; Classic single hungs and sliders are available in a non-brickmould 3-1/4" standard frame
- Air spaces in chambers provide superior energy efficiency
- Fusion-welded frame and sash for strong, leak-resistant construction
- Locking mechanism and check rail interlock to create a tight seal between vent and fixed sash for improved weather performance
- Block and tackle balances provide years of smooth operation
- Integral lift/pull handle located on bottom rail for easy access and operation
- Integral weep system for sleek appearance; no flaps, sponges or screens
- Tilt sash for easy cleaning
- Sloped sill on single hung and double hung, and pocketed sill on slider, provide a traditional appearance
- Available with simulated divided lite or inner grille
- Multi-level profile for attractive architectural sightlines
- Jamb extensions offered as a kit or applied
- Vent latch option available

## Glazing

- Windsor Glazing System provides 3/4" double pane insulated glass; Cardinal® LoE 366 glass standard; tinted, tempered, obscure and laminated glass available
- Custom and special glass types available
- Super Spacer® technology provides excellent thermal performance and sound absorption\*
- Hot melt butyl secondary seal creates a moisture and gas barrier for improved durability and longevity

## Sizes

Available in hundreds of standard and custom sizes

## Colors

Available in standard white or clay, with seven additional painted exterior colors to choose from

## Grilles

- 3/4" profiled aluminum grilles are color matched to the unit and installed within the insulated glass airspace providing the look of authentic divided lite and allows for easy cleaning
- 5/8" and 7/8" putty simulated divided lite grilles are available in direct set and radius windows

## Hardware

Available in white or clay; color matched to window

## Frame

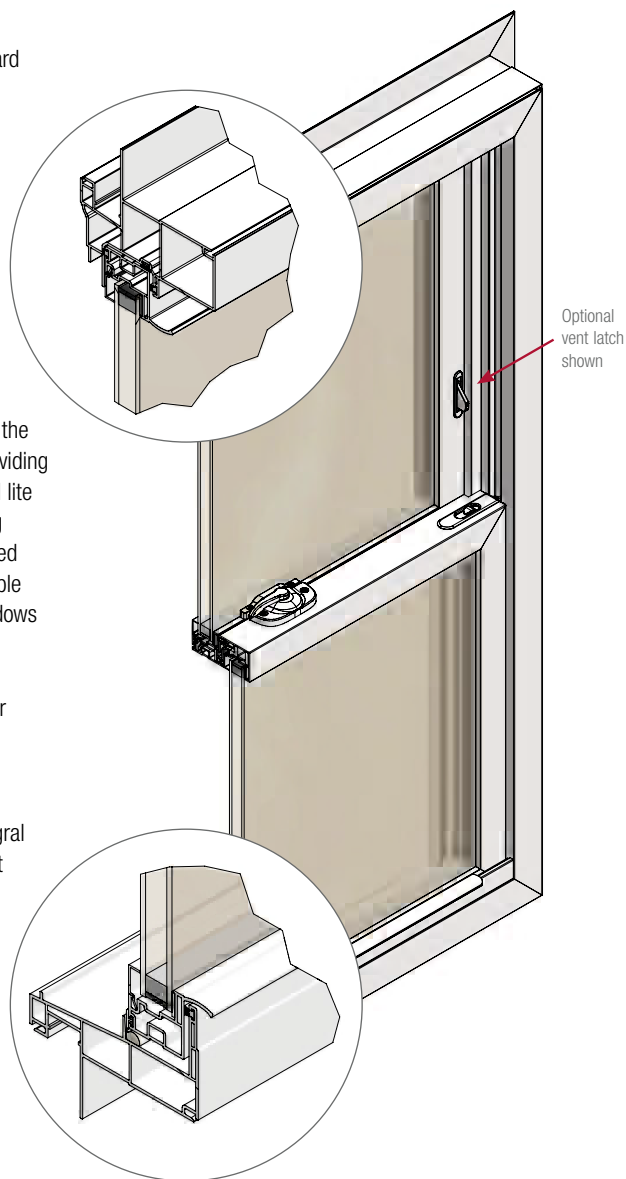
- Brickmould profile with integral J-channel provides an offset that allows for more nail fin exposure and easier installation available on all Classic products
- Non-brickmould standard frame available on double hung

## Warranty

Lifetime Limited Warranty\*\*  
10-year warranty on glass

## Performance Ratings

For current performance ratings, visit our website at [windsorwindows.com](http://windsorwindows.com) and click on "Professional Information" in the menu bar



\*Certain sizes, shapes or glazings may be alternate IG system

\*\*See Next Dimension warranty for more details



# Next Dimension Pro Single Hung

## Features and Benefits

- Thick, multi-chambered vinyl extrusions are optimized for superior weathering, durability and color retention
- 2-3/4" frame width with integral extruded nail fin for strength and ease of installation
- Air spaces in chambers provide superior energy efficiency
- Fusion-welded frame and sash for strong, leak-resistant construction
- Lock and keeper creates a tighter seal between the vent and fixed sash for improved weather performance
- Block and tackle balances provide years of smooth operation
- Pocketed sill for unbeatable strength and performance
- Integral lift/pull handle located on bottom rail for easy access and operation
- Integral weep system for sleek appearance; no flaps, no sponges or screens

## Glazing

- Windsor Glazing System provides 3/4" double pane insulated glass; Cardinal® LoE 366 glass standard; tinted, tempered, obscure and laminated glass available
- Custom and special glass types available
- Super Spacer® technology provides excellent thermal performance and sound absorption\*
- Hot melt butyl secondary seal creates a moisture and gas barrier for improved durability and longevity

## Sizes

Available in hundreds of standard and custom sizes

## Colors

Available in standard white or clay, with seven additional painted exterior colors to choose from

## Grilles

3/4" profiled aluminum grilles are color matched to the unit and installed within the insulated glass air space providing the look of authentic divided lite and allows for easy cleaning

## Hardware

Available in white or clay; color matched to window

## Warranty

Lifetime Limited Warranty\*\*  
10-year warranty on glass

## Performance Ratings

For current performance ratings, visit our website at [windsorwindows.com](http://windsorwindows.com) and click on "Professional Information" in the menu bar



\*Certain sizes, shapes or glazings may be alternate IG system

\*\*See Next Dimension warranty for more details



# Next Dimension Pro Slider

## Features and Benefits

- Thick, multi-chambered vinyl extrusions are optimized for superior weathering, durability and color retention
- 2-3/4" frame width with integral extruded nail fin for strength and ease of installation
- Air spaces in chambers provide superior energy efficiency
- Fusion-welded frame and sash for strong, leak-resistant construction
- Lock and keeper creates a tighter seal between the vent and fixed sash for improved weather performance
- Pocketed sill for unbeatable strength and performance
- Integral lift/pull handle located on bottom rail for easy access and operation
- Integral weep system for sleek appearance; no flaps, no sponges or screens
- Vinyl sash rollers for easy operation and durability

## Glazing

- Windsor Glazing System provides 3/4" double pane insulated glass; Cardinal® LoE 366 glass standard; tinted, tempered, obscure and laminated glass available
- Custom and special glass types available
- Super Spacer® technology provides excellent thermal performance and sound absorption\*
- Hot melt butyl secondary seal creates a moisture and gas barrier for improved durability and longevity

## Sizes

Available in hundreds of standard and custom sizes

## Colors

Available in standard white or clay, with seven additional painted exterior colors to choose from

## Grilles

3/4" profiled aluminum grilles are color matched to the unit and installed within the insulated glass air space providing the look of authentic divided lite and allows for easy cleaning

## Hardware

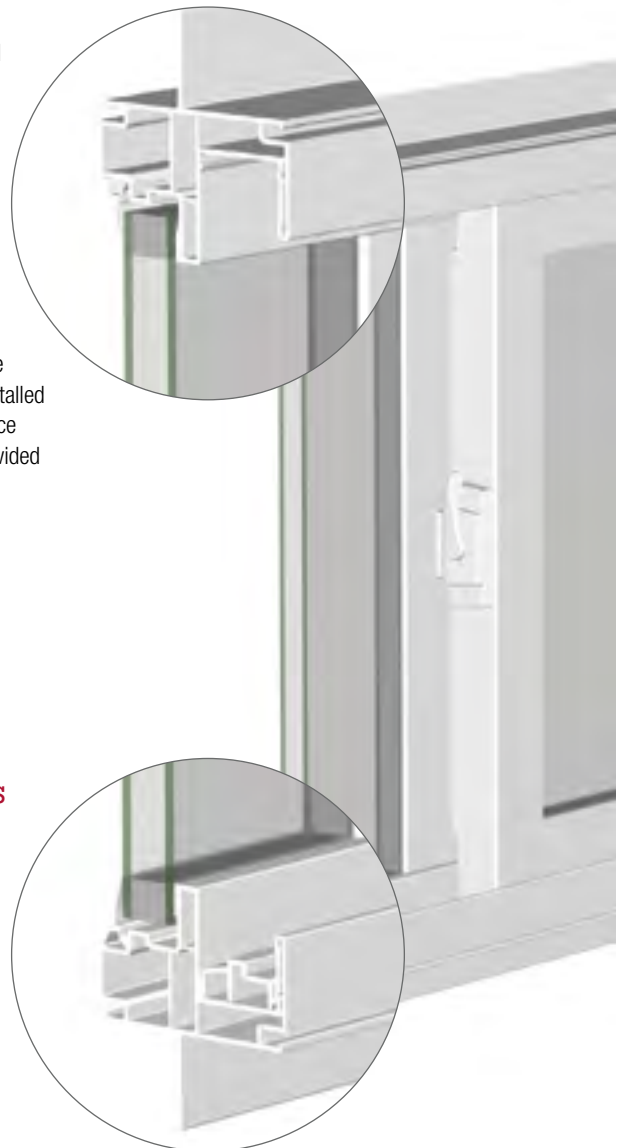
Available in white or clay; color matched to window

## Warranty

Lifetime Limited Warranty\*\*  
10-year warranty on glass

## Performance Ratings

For current performance ratings, visit our website at [windsorwindows.com](http://windsorwindows.com) and click on "Professional Information" in the menu bar



\*Certain sizes, shapes or glazings may use alternate IG system

\*\*See Next Dimension warranty for more details





# Next Dimension Sliding Patio Door

## Features and Benefits

- 4-1/2" frame width built from thick vinyl extrusions
- Fusion-welded frame and panel corners increase strength and maximize weather-proof performance
- Aluminum reinforcement in both interlock stiles for added strength and security
- Smooth operation on four adjustable steel ball bearing rollers on a stainless steel track
- Matching standard transom and sidelite additions for beautiful combinations
- Extruded aluminum threshold cover to protect sill and prevent debris build-up
- Panel anti-lift blocks for added security
- Heavy-duty extruded screen
- Blinds between the glass option available

## Glazing

- Windsor Glazing System provides 3/4" double pane insulated glass; Cardinal® LoE 366 glass standard; tinted, tempered, obscure and laminated glass available
- Custom and special glass types available
- Super Spacer® technology provides excellent thermal performance and sound absorption\*
- Hot melt butyl secondary seal creates a moisture and gas barrier for improved durability and longevity

## Colors

Available in standard white or clay, with seven additional painted exterior colors to choose from

## Grilles

3/4" profiled aluminum grilles are color matched to the unit and installed within the insulated glass air space providing the look of authentic divided lite and allows for easy cleaning

## Hardware

D-shaped handle offered in white or clay; satin nickel and faux bronze available on painted exteriors only

## Warranty

Lifetime Limited Warranty\*\*  
10-year warranty on glass

## Performance Ratings

For current performance ratings, visit our website at [windsorwindows.com](http://windsorwindows.com) and click on "Professional Information" in the menu bar

\*Certain sizes, shapes or glazings may be alternate IG system

\*\*See Next Dimension warranty for more details

# Our Quality is in the Details

[1]



[2]



## [1] Mullion Post

Next Dimension Pro windows utilize a T-bar mullion post between two windows to provide an attractive appearance, added strength, and to prevent air and water infiltration.

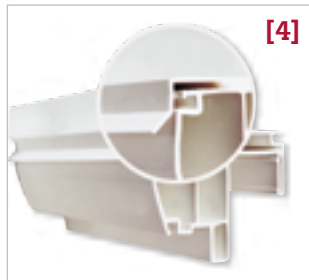
## [2] Drywall Return

This accessory provides a groove for drywall to slide into, providing a sleek, finished interior edge.

[3]



[4]



## [3] Integral J-channel *(Pro Only)*

Provides a smooth, finished edge for vinyl siding applications. Available on single hung, slider, picture and radius.

## [4] Drip Cap

Just another detail we added to the top of the mull to ensure water stays out.

[5]



[6]



## [5] Grilles

3/4" profiled aluminum grilles are color matched to the unit and installed within the insulated glass airspace. This provides the look of authentic divided lite and allows for easy cleaning. 5/8" and 7/8" putty simulated divided lite grilles are available in Signature casement, awning, direct set and radius windows.

## [6] Extension Jambs

Extension jambs are available in pine and oak for stained interiors or in white for painted interiors. These are available as a separate kit or applied.

[7]



[8]



## [7] Sliding Patio Door Hardware

Our patio door handles feature a versatile "D" shape in white, clay, satin nickel\* or faux bronze\* to coordinate with your door color.

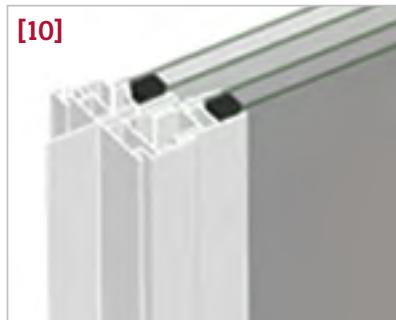
## [8] Window Hardware

The beauty of Next Dimension windows is carried right down to the sleek design of our hardware. They are available in clay or white to match the units.

[9]



[10]



## [9] Blinds Between the Glass *(Patio Door Only)*

Control light and privacy with blinds between the glass. This no-cord, easy-to-clean option adds lift and tilt features, simple operation and long-lasting performance.

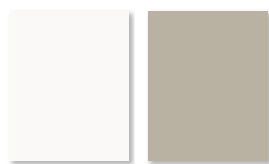
## [10] Easy-Out™ Sash System *(Pro Only)*

A feature unique to Next Dimension Pro models, the Easy-Out Sash System is designed for easy removal of the entire lower sash, making installation and replacement easier than ever. And, the Easy-Out Sash System's pocket design creates consistent pressure against the weatherstrip, meaning no loss in air and water performance.

# Next Dimension Options & Accessories



## Standard Vinyl Colors



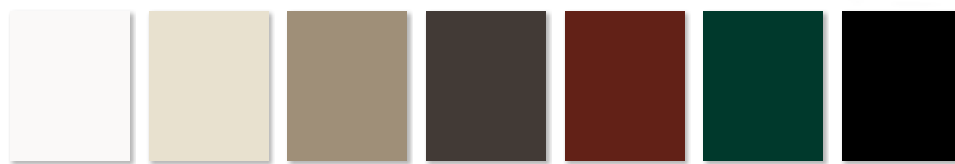
White

Clay

## Painted Vinyl Exterior Colors

White vinyl interior is available with white, ivory, tan, bronze, cinnamon, hunter green or black exterior.

Clay vinyl interior is available with bronze or black exterior.



White

Ivory

Tan

Bronze

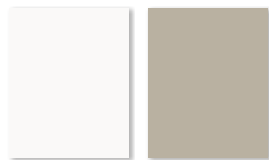
Cinnamon

Hunter Green

Black

## Window Hardware

Hardware is available in white or clay.



White

Clay

### Classic Single Hung/Slider Lock



### Signature Casement Crank and Lock



Crank

Lock

### Classic Double Hung Lock



### Pro Single Hung, Double Hung and Slider Lock



**NOTE:** Printing limitations prevent exact color/finish representation.  
See your Windsor distributor for actual samples.



## Grilles

All cellular PVC Windsor Divided Lite (WDL)\* bars are hand-fitted to ensure a perfect fit.

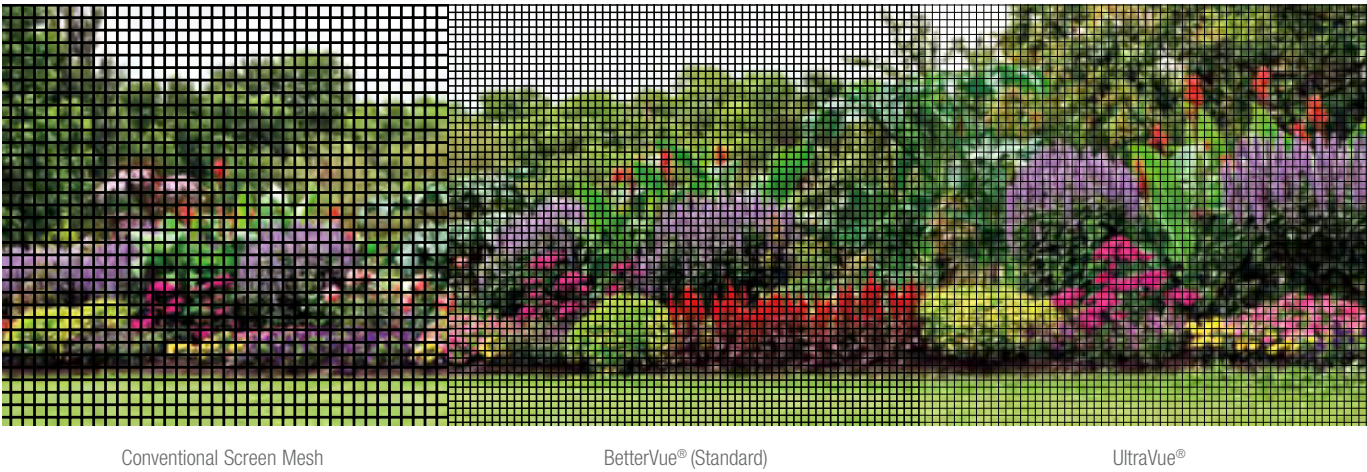


## Glass

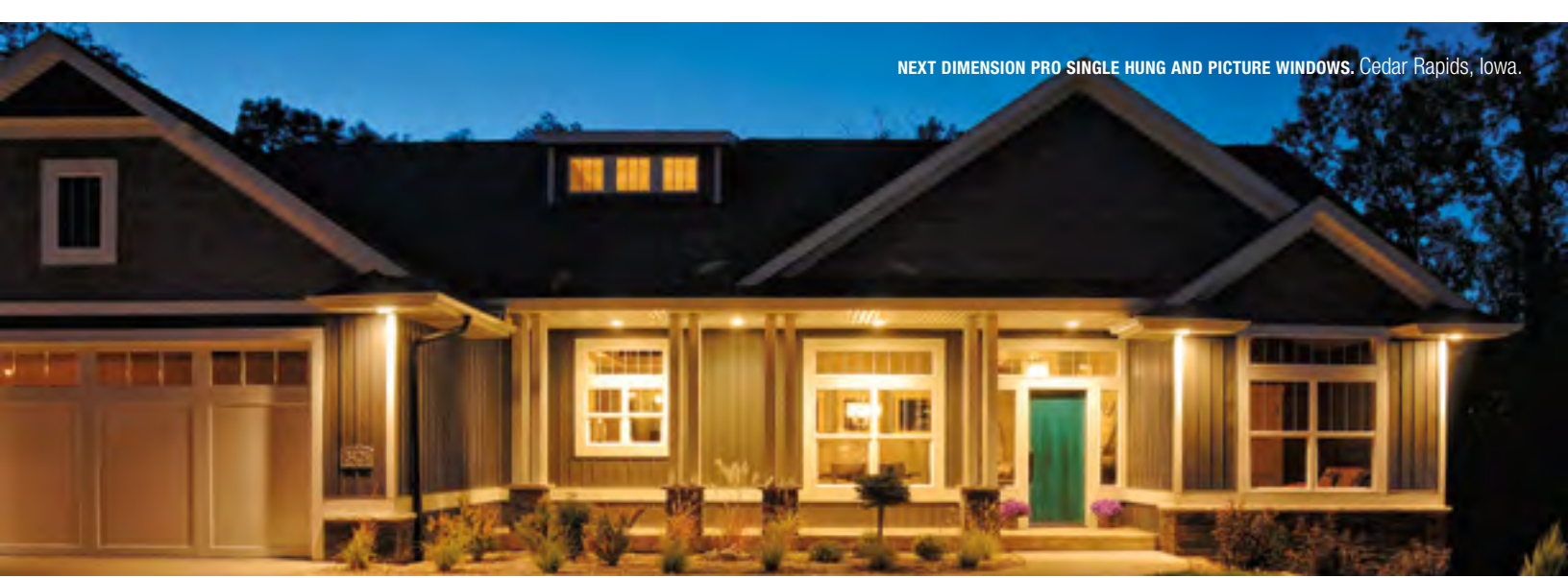
\*Special order item



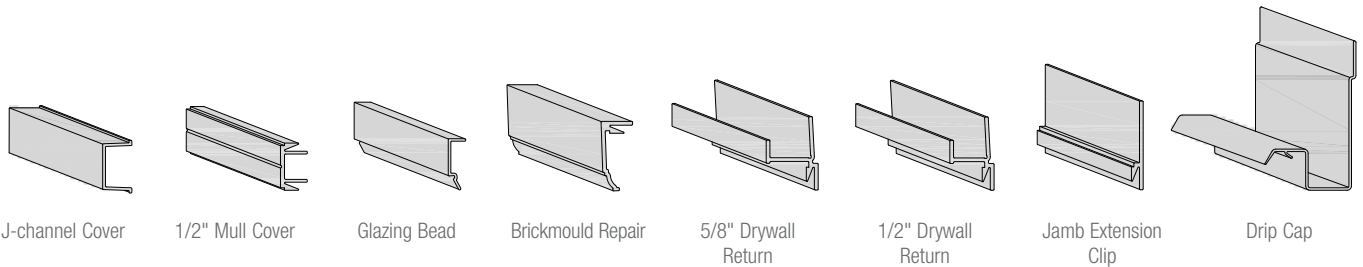
## Screens



\*WDL bars are available in Signature casement, awning, direct set and radius windows.  
**NOTE:** Printing limitations prevent exact color/finish representation.  
See your Windsor distributor for actual samples.



## Accessories



## Direct Set and Radius Options

### Radius Special Shapes

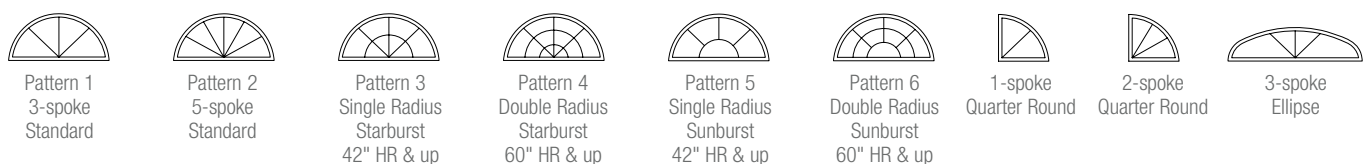


### Direct Set Special Shapes



### Radius Inner Grille Options

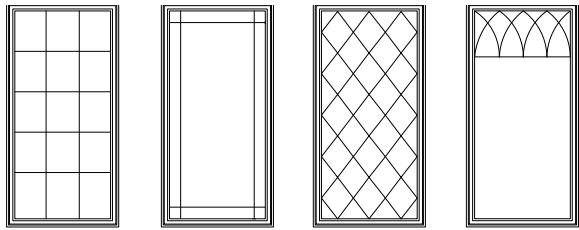
**NOTE:** Before selecting a special grille pattern, confirm alignment with units below.



# Grille Patterns

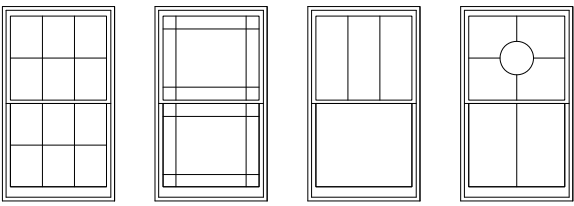
Some grille patterns are not available in all configurations and products.

## Casement Grille Patterns



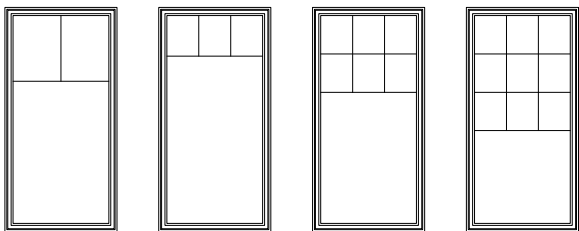
Colonial      Prairie      Diamond      Gothic

## Single Hung / Double Hung Grille Patterns



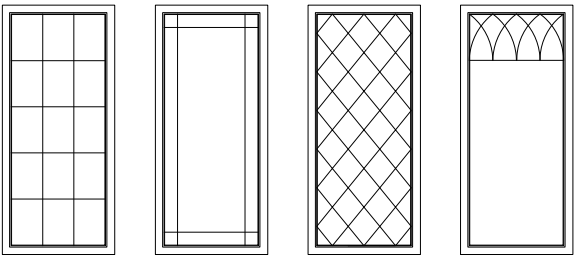
Colonial      Prairie      Plaza      Custom Pattern (Example)

## Casement Grille Patterns



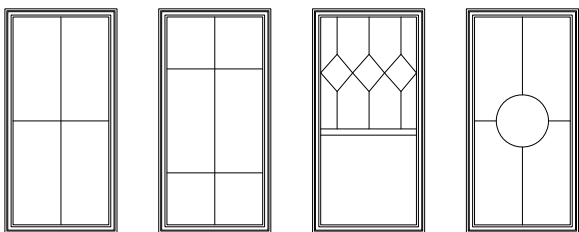
Custom Plaza      Plaza      Double Plaza      Triple Plaza

## Patio Door Grille Patterns



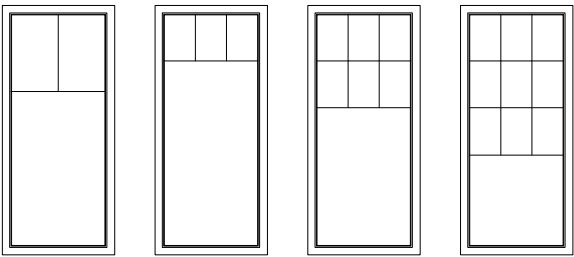
Colonial      Prairie      Diamond      Gothic

## Casement Grille Patterns



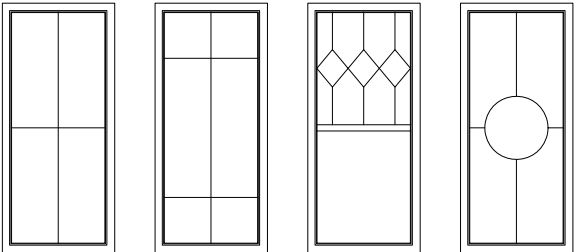
Specified Equal Lite (2x2 shown)      Custom Pattern (Example)      Custom Pattern (Example)      Custom Pattern (Example)

## Patio Door Grille Patterns



Custom Plaza      Plaza      Double Plaza      Triple Plaza

## Patio Door Grille Patterns



Specified Equal Lite (2x2 shown)      Custom Pattern (Example)      Custom Pattern (Example)      Custom Pattern (Example)



## Sliding Patio Door Handle and Finishes

Finishes are the same for both interior and exterior handles.



White

Satin Nickel  
*Only available on  
painted exteriors*

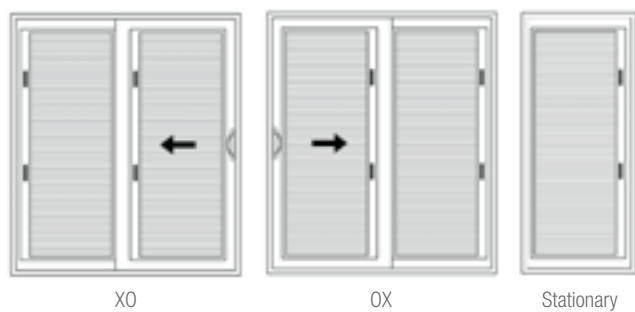
Clay

Faux Bronze  
*Only available on  
painted exteriors*



## Sliding Patio Door Blinds Between the Glass

Door handings are viewed from the interior looking out.



XO

OX

Stationary



**NOTE:** Printing limitations prevent exact color/finish representation.  
See your Windsor distributor for actual samples.

next dimension options & accessories

# Revive Wood Clad Double Hung Pocket Replacement Window

## Features and Benefits

- **Stainable and paintable natural wood interiors** – choose from Clear Select Pine, Natural Alder or Douglas Fir
- **Sleek appearance and clean lines** – recessed lock, keeper and tilt latch won't get in the way of your view
- **Low-maintenance exteriors** – heavy-duty aluminum cladding protects the sash and pocket frame
- **Easy cleaning** – EZ Tilt sash makes washing the outside glass more convenient
- **Concealed jambliner** – enhances window's appearance with the warmth of wood on the interior and color-matched aluminum cladding on the exterior
- **Easy sash operation** – full-sized block and tackle balance system allows sash to smoothly glide open and closed
- **Exceptional structural stability** – head frame corners are keyed, screwed and silicone-injected
- **Full- or half-screen options**

## Sizes

Available in custom sizes

## Glazing

- 3/4" inch double pane insulated glass comes standard with energy efficient Cardinal® LoE 366 coating; tinted, tempered, obscure and laminated glazing options available
- Double glazing and interior wood stops lend superior strength and sealing against moisture and air
- Custom and special glass types available
- Preserve protective film optional

## Grilles

*Windsor Divided Lite (WDL) = simulated divided lite*

- 7/8" and 1-1/4" perimeter grille
- 7/8" and 1-1/4" stick grille
- 3/4" and 1" profiled inner grille
- 13/16" flat inner grille
- 7/8" and 1-1/4" interior wood WDL
- 7/8" and 1-1/4" exterior clad WDL
- 5/8" and 7/8" short putty WDL
- 2" exterior low profile simulated check rail
- Standard and custom grille patterns available

## Finishes

- Interior – Available in Clear Select Pine, Douglas Fir, Natural Alder, primed or painted white interior finishes
- Exterior – Heavy-duty extruded aluminum cladding

## Clad Colors

All clad colors painted in-house with the highly durable AAMA 2604 standard finish, or upgrade to AAMA 2605 for the most challenging of environments

- 22 standard colors
- 20 feature colors; custom colors available
- 8 anodized finishes

## Hardware

Double hung lock available in champagne, white, bronze and black; optional finishes in faux bronze, oil rubbed bronze, satin nickel and bright brass

## Performance Ratings

For current performance ratings, visit our website at [windsorwindows.com](http://windsorwindows.com) and click on "Professional Information" in the menu bar



Type	Sill Angle	Revive Replacement Unit (Frame Size)				Existing Frame (Opening Size)			
		Min Width	Max Width	Min Height	Max Height	Min Width	Max Width	Min Height	Max Height
Clad DH Operating	0-7 Degree	17-3/8"	47-3/8"	32-3/4"	96-3/4"	17-7/8"	47-7/8"	33-1/8"	97-1/8"
	>7 Degree							32-9/16"	96-1/2"
Clad DH Picture	0-7 Degree	11-3/8"	73-3/8"	13-1/4"	96-3/4"	11-7/8"	73-7/8"	13-5/8"	97-1/8"
	>7 Degree							13-1/16"	96-1/2"

**Note:** Clad DH Picture — Max width on 96-3/4" tall unit = 42-1/8"

# Revive Hybrid Double Hung Pocket Replacement Window

## Features and Benefits

- **Exceptionally easy to maintain** – engineered, high-endurance cellular PVC sash will not decay, warp, crack, split or swell
- **Excellent thermal performance** – cellular PVC sashes help keep the cold and heat outside — and help keep you comfortable inside
- **Sleek appearance and clean lines** – recessed lock, keeper and tilt latch won't get in the way of your view
- **Low-maintenance exteriors** – heavy-duty aluminum cladding protects the pocket frame
- **Easy cleaning** – EZ Tilt sash makes washing the outside glass more convenient
- **Easy sash operation** – fixed-back, one-piece PVC jambliner, combined with a full-sized block and tackle balance system, allows sash to smoothly glide open and closed
- **Exceptional structural stability** – head frame corners are keyed, screwed and silicone-injected
- **Full- or half-screen options**

## Sizes

Available in custom sizes

## Glazing

- 3/4" inch double pane insulated glass comes standard with energy efficient Cardinal® LoE 366 coating; tinted, tempered, obscure and laminated glazing options available
- Custom and special glass types available

## Grilles

*Windsor Divided Lite (WDL) = simulated divided lite*

- 3/4" and 1" profiled inner grille
- 13/16" flat inner grille
- 7/8" & 1-1/4" CPVC WDL
- 5/8" and 7/8" short putty WDL
- Standard and custom grille patterns available

## Finishes

- Interior – Available in Clear Select Pine, primed or painted white (standard) interior finishes
- Exterior – Heavy-duty extruded aluminum cladding on frame and cellular PVC sashes

## Clad Colors

All clad colors painted in-house with the highly durable AAMA 2604 standard finish, or upgrade to AAMA 2605 for the most challenging of environments

- 22 standard colors
- 20 feature colors; custom colors available
- 8 anodized finishes

## Hardware

Double hung lock available in champagne, white, bronze, faux bronze and satin nickel

## Performance Ratings

For current performance ratings, visit our website at [windsorwindows.com](http://windsorwindows.com) and click on "Professional Information" in the menu bar



Type	Sill Angle	Revive Replacement Unit (Frame Size)				Existing Frame (Opening Size)			
		Min Width	Max Width	Min Height	Max Height	Min Width	Max Width	Min Height	Max Height
Hybrid DH Operating	0-7 Degree	17-3/8"	41-3/8"	32-3/4"	80-3/4"	17-7/8"	41-7/8"	33-1/8"	81-1/8"
	>7 Degree							32-9/16"	80-1/2"
Hybrid DH Picture	0-7 Degree	13-3/8"	73-3/8"	13-1/4"	76-3/4"	13-7/8"	73-7/8"	13-5/8"	77-1/8"
	>7 Degree							13-1/16"	76-1/2"

**Note:** Hybrid DH Picture — Max width on 76-3/4" tall unit = 61-3/8"



# Revive Vinyl Double Hung Pocket Replacement Window

## Features and Benefits

- **Low-maintenance frames** – vinyl stays looking great year after year — no need to paint or scrape your windows ever again
- **Superior weatherability and thermal performance** – rugged, multi-chambered vinyl sash and frames optimize your home's energy efficiency year after year
- **Smooth opening and closing** – block and tackle balance system provides years of effortless operation
- **Superior strength and security** – aluminum-reinforced meeting rail adds structural strength and wind resistance
- **Quick and convenient glass cleaning** – both sashes tilt in for easier cleaning

## Sizes

Available in custom sizes

## Glazing

- 3/4" inch double pane insulated glass comes standard with energy efficient Cardinal® LoE 366 coating; tinted, tempered, obscure and laminated glazing options available
- Custom and special glass types available

## Grilles

*Windsor Divided Lite (WDL) = simulated divided lite*

- 3/4" profiled inner grille
- 5/8" and 7/8" putty WDL (exterior only) with flat inner grille
- 5/8" and 7/8" putty WDL
- Standard and custom grille patterns available

## Colors

Available in standard white or clay, with seven additional painted exterior colors to choose from

## Hardware

Double hung lock available in white or clay; color matched to window

## Performance Ratings

For current performance ratings, visit our website at [windsorwindows.com](http://windsorwindows.com) and click on "Professional Information" in the menu bar



Type	Sill Angle	Revive Replacement Unit (Frame Size)				Existing Frame (Opening Size)			
		Min Width	Max Width	Min Height	Max Height	Min Width	Max Width	Min Height	Max Height
<b>Vinyl DH Operating</b>	0-14 Degree	17-1/2"	47-1/2"	23-1/2"	81-1/2"	18"	48"	23-7/8"	81-7/8"
<b>Vinyl DH Picture</b>	0-14 Degree	11-1/2"	95-1/2"	11-1/2"	95-1/2"	12"	96"	11-7/8"	95-7/8"

# Revive Vinyl Single Hung Pocket Replacement Window

## Features and Benefits

- **Low-maintenance frames** – vinyl stays looking great year after year — no need to paint or scrape your windows ever again
- **Superior weatherability and thermal performance** – rugged, multi-chambered vinyl sash and frames optimize your home's energy efficiency year after year
- **Smooth opening and closing** – block and tackle balance system provides years of effortless operation
- **Superior strength and security** – aluminum-reinforced meeting rail adds structural strength and wind resistance
- **A lifetime of dependable service** – a side-load, easy-out sash feature with concealed sash release mechanism provides unparalleled strength and performance

## Sizes

Available in custom sizes

## Glazing

- 3/4" inch double pane insulated glass comes standard with energy efficient Cardinal® LoE 366 coating; tinted, tempered, obscure and laminated glazing options available
- Custom and special glass types available

## Grilles

- 3/4" profiled inner grille
- Standard and custom grille patterns available

## Colors

Available in standard white or clay, with seven additional painted exterior colors to choose from

## Hardware

Single hung lock available in white or clay; color matched to window

## Performance Ratings

For current performance ratings, visit our website at [windsorwindows.com](http://windsorwindows.com) and click on "Professional Information" in the menu bar



Type	Sill Angle	Revive Replacement Unit (Frame Size)				Existing Frame (Opening Size)			
		Min Width	Max Width	Min Height	Max Height	Min Width	Max Width	Min Height	Max Height
<b>Vinyl SH Operating</b>	0-14 Degree	13-1/2"	47-1/2"	23-1/2"	83-1/2"	14"	48"	23-7/8"	83-7/8"
<b>Vinyl SH Picture</b>	0-14 Degree	13-1/2"	95-1/2"	11-1/2"	95-1/2"	14"	96"	11-7/8"	95-7/8"

**Note:** Vinyl SH Operating — Height cannot exceed 77-1/2" when frame width is greater than 41-1/2"

# Revive Vinyl Casement Pocket Replacement Window

## Features and Benefits

- **Low-maintenance frames** – vinyl stays looking great year after year — no need to paint or scrape your windows ever again
- **Superior weatherability and thermal performance** – rugged, multi-chambered vinyl sash and frames optimize your home's energy efficiency year after year
- **Tight seal against the elements** – two-sash, one-frame weatherstrip system keeps even extreme weather outside
- **One lever locks multiple points** – one easy-to-reach lever pulls the sash in at multiple locations for an airtight seal
- **No crank handles to get in your way** – recessed crank handle nests in the operator cover housing, keeping it out of the way of window treatments
- **Easy to open and close** – adjustable hinge system ensures proper alignment and smooth operation

## Sizes

Available in custom sizes

## Glazing

- 3/4" inch double pane insulated glass comes standard with energy efficient Cardinal® LoE 366 coating; tinted, tempered, obscure and laminated glazing options available
- Custom and special glass types available

## Grilles

*Windsor Divided Lite (WDL) = simulated divided lite*

- 3/4" profiled inner grille
- 5/8" and 7/8" putty WDL (exterior only) with flat inner grille
- 5/8" and 7/8" putty WDL
- Standard and custom grille patterns available

## Colors

Available in standard white or clay, with seven additional painted exterior colors to choose from

## Hardware

Encore folding nesting crank and cover by Truth® available in white or clay; color matched to window

## Performance Ratings

For current performance ratings, visit our website at [windsorwindows.com](http://windsorwindows.com) and click on "Professional Information" in the menu bar



Type	Sill Angle	Revive Replacement Unit (Frame Size)				Existing Frame (Opening Size)			
		Min Width	Max Width	Min Height	Max Height	Min Width	Max Width	Min Height	Max Height
<b>Vinyl Casement</b>	0-14 Degree	15-1/2"	35-1/2"	17-1/2"	71-1/2"	16"	36"	17-7/8"	71-7/8"
<b>Vinyl Casement Picture</b>	0-14 Degree	15-1/2"	95-1/2"	11-1/2"	95-1/2"	16"	96"	11-7/8"	95-7/8"



# Revive Sash Replacement Kit

## Three easy steps to install your new windows.

Replace old, drafty, inefficient double hung sashes with energy efficient, dual pane sashes. Windsor's Revive Sash Replacement Kit makes updating easy, allowing you to keep your existing interior trim and plaster in place. Choose from three different replacement sashes: versatile primed wood, durable aluminum clad or low-maintenance cellular PVC. Revive sashes feature EZ Tilt, which provides fast access for hassle-free cleaning.

### STEP ONE: Measure Opening



### STEP TWO: Remove Old Sash



### STEP THREE: Install New Sash



### Quick and minimally invasive installation

*Note: Windsor's Revive sash replacement kits are designed to replace **wood double hung windows**. The wood side jamb pocket depth between the inside stop and the outside stop **MUST** measure at least 3-3/8" to accommodate the Revive sash replacement jambliner and clip.*



REVIVE™  
REPLACEMENT

# Revive Options & Accessories

## Standard Clad Colors (Revive Wood Clad and Hybrid)

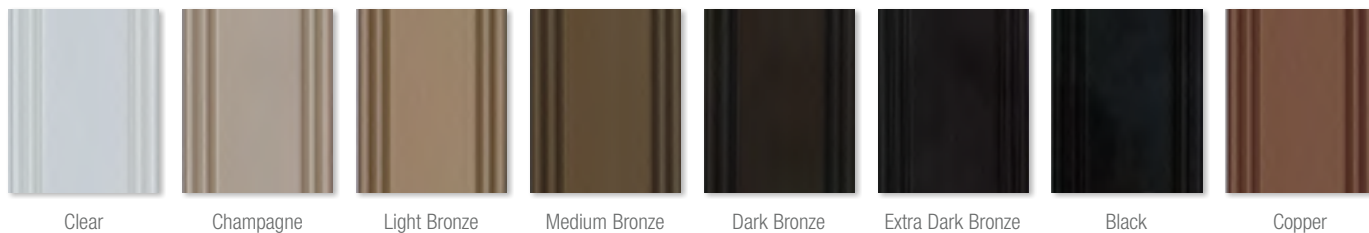
White	Linen	Ivory	Sandstone	Clay	Tan	Sage Brown	Walnut	Desert Dust	Bronze	Appalachian Brown
Red River Rouge	Cinnamon	Sage Green	Hunter Green	Military Blue	Clear	Dove Gray	Slate Gray	Charcoal Gray	Sable	Black

## Feature Clad Colors (Revive Wood Clad and Hybrid)

Custom color matching is also available.

French Vanilla	Burnt Sun	Pueblo Tan	Dijon	Beige	Coastal Tan	Sierra Tan	Putty	Antique Bronze	Sunflower
Burnt Pumpkin	Copper	Brick Red	Redwood	Boysenberry	Patina Green	Camarillo Green	Midnight Blue	Stormy Monday	Dark Bronze

## Anodized Finishes (Revive Wood Clad and Hybrid)

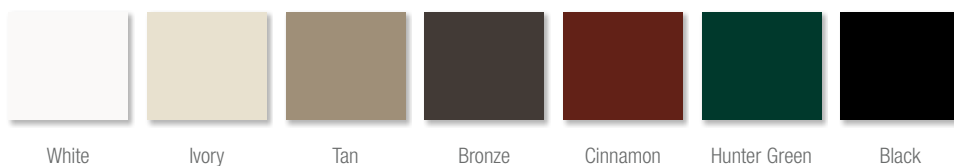


## Standard Vinyl Colors (Revive Vinyl)



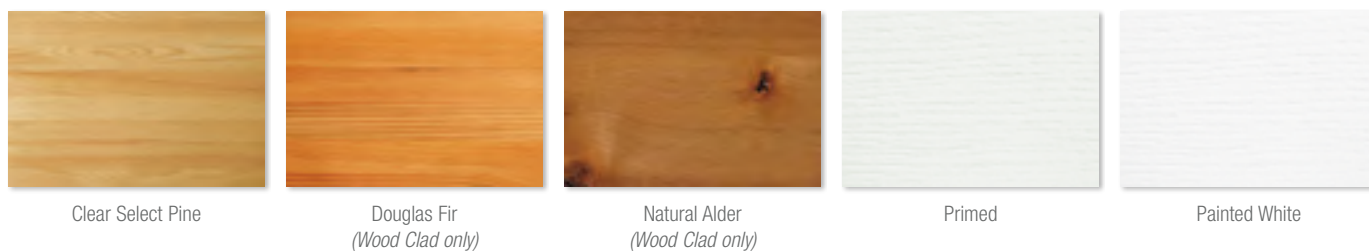
## Painted Vinyl Exterior Colors (Revive Vinyl)

White vinyl interior is available with white, ivory, tan, bronze, cinnamon, hunter green or black exterior.  
Clay vinyl interior is available with bronze or black exterior.



## Interior Finishes (Revive Wood Clad and Hybrid)

Wood Clad: Available in all five finishes. Hybrid: Painted White comes standard; Clear Select Pine and Primed interiors are optional.



## Glass *\*Special order item*



**NOTE:** Printing limitations prevent exact color/finish representation. See your Windsor distributor for actual samples.

revive options & accessories



# Grilles

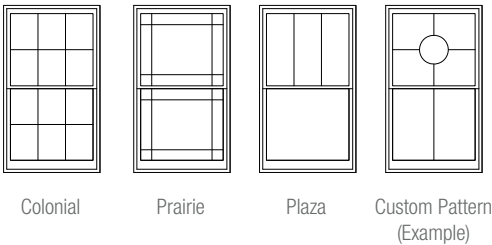
All of our wood and cellular PVC (CPVC) Windsor Divided Lite (WDL) bars are hand-fitted to ensure a perfect fit.



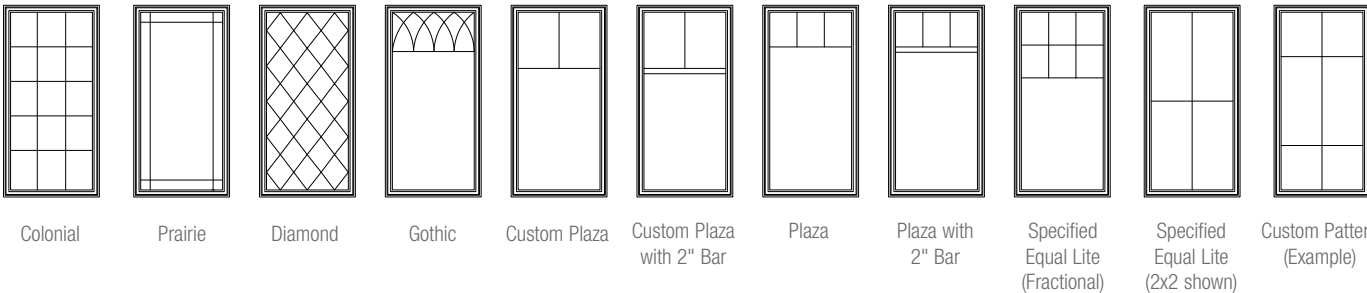
# Grille Patterns

Some grille patterns are not available in all configurations and products.

## Single Hung and Double Hung Grille Patterns



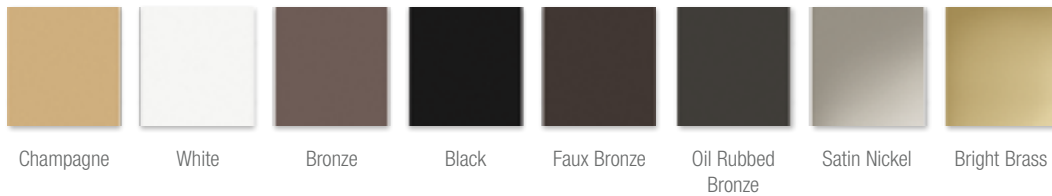
## Casement Grille Patterns



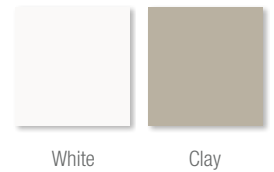
## Hardware and Finishes

Wood Clad: Available in champagne, white, bronze, black, faux bronze, oil rubbed bronze, satin nickel and bright brass. Hybrid: Available in champagne, white, bronze, faux bronze and satin nickel. Vinyl: Available in white and clay.

### Wood Clad and Hybrid Finishes



### Vinyl Finishes



Wood Clad and Hybrid  
Double Hung Lock



Vinyl Casement Crank



Vinyl Single Hung Lock



Vinyl Double Hung Lock

## Sash Replacement Features

Options	Primed Wood	Aluminum Clad	Cellular PVC
3/4" LoE 366 Insulated Glass	Yes	Yes	Yes
Weatherstrip Points	4	4	4
Factory-installed Locks	Champagne, white, bronze, black, faux bronze, oil rubbed bronze, satin nickel or bright brass	Champagne, white, bronze, black, faux bronze, oil rubbed bronze, satin nickel or bright brass	Champagne, white, bronze, faux bronze or satin nickel
Exterior Finish	Primed wood	22 standard colors, 20 feature colors or 8 anodized finishes	White CPVC
Interior Finish	Clear Select Pine	Clear Select Pine, Douglas Fir, Natural Alder, primed or painted white	White CPVC
Adjustable Vinyl Jamliners	White or beige	White or beige	White
Sill Bevel	14°	14°	14°
Standard Sizes	84	84	72
EZ Tilt Feature	Yes	Yes	Yes
Block & Tackle Balance System	Yes	Yes	Yes

	Upgrades		
Custom Sizes <sup>1</sup>	Yes	Yes	Yes
Primed Interior	Yes	Yes	Standard
Tempered or Tinted Glass <sup>2</sup>	Yes	Yes	Yes
Heavy-duty Insect Screen <sup>3</sup>	22 standard colors, 20 feature colors or 8 anodized finishes		
Custom Sill Bevels (Jamliners Only) <sup>4</sup>	Yes	Yes	Yes

	Grilles		
13/16" Flat Inner Grille (GBG, GIA)	White, ivory, tan, bronze, hunter green, cinnamon or black		
3/4" Profiled Inner Grille	White, ivory, tan, bronze, hunter green, cinnamon or black		
1" Profiled Inner Grille	White, ivory, tan, bronze, hunter green, cinnamon or black		
Standard Windsor Divided Lite (Simulated Divided Lite)	Exterior: 7/8" or 1-1/4" CPVC; Interior: Clear Select Pine	Exterior: 7/8" or 1-1/4" extruded aluminum; Interior: Clear Select Pine, Douglas Fir or Natural Alder	Exterior: 7/8" or 1-1/4" CPVC; Interior: CPVC
Putty Windsor Divided Lite (Simulated Divided Lite)	Exterior: 5/8" or 7/8" CPVC; Interior: Clear Select Pine	Exterior: 5/8" or 7/8" extruded aluminum; Interior: Clear Select Pine, Douglas Fir or Natural Alder	Exterior: 5/8" or 7/8" CPVC; Interior: CPVC
Removable Wood Perimeter	7/8" or 1-1/4" Clear Select Pine	7/8" or 1-1/4" Clear Select Pine	No

1. Custom sizes in 1/4" increments. Kit may be adjusted to fit sash opening width 1/4" (max.) wider than standard size, via jambliner adjustment. The sash opening height cannot vary from standard. Openings larger than standard must be shimmed to standard size; smaller heights must be ordered as custom size.
2. Other glass options available; contact your Windsor distributor/dealer.
3. The insect screen is constructed of painted aluminum. Screen size ordered separate of the sash. The screen utilizes plungers, which need to engage grommets/holes in the exterior trim to hold the screen in place. These grommets/holes need to be installed on site and are not included.
4. Must specify bevel: 10° minimum/20° maximum.

**NOTE:** Printing limitations prevent exact color/finish representation. See your Windsor distributor for actual samples.

revive options & accessories



# The Windsor Glazing System



## Glass Washer

Fully-automated glass washing station removes impurities with multiple washing stages and final drying zone

## Spacer Applicator

Fully-automated Super Spacer applicator ensures accurate positioning and constant depth of seal on all four sides of the window

## Grille Station

Fully-automated Inner-Grid Machine forms coil stock into profile and sequentially cuts each segment with appropriate end work and punches; attendant places the assembled grid on glass before sheets are insulated

## Fill Chamber and IG Press

Fully-automated assembling/matching press with integrated argon gas flood chamber ensures consistent gas fill rates

## Secondary Sealing Robot

Sealing robot for precise application of hot melt butyl secondary seal

**Windsor's Glazing System offers builders a well-engineered window that is superior in energy efficiency and competitive in price.** The highly-automated glass line is tightly monitored throughout the entire process with rigorous quality controls. Three sophisticated technologies will be brought into our plants: a highly-automated fabrication equipment process from Lisec, high-performance glass from Cardinal® and an advanced Super Spacer® all-foam edge application from Edgetech.

## Quality Cardinal® LoE 366 Glass

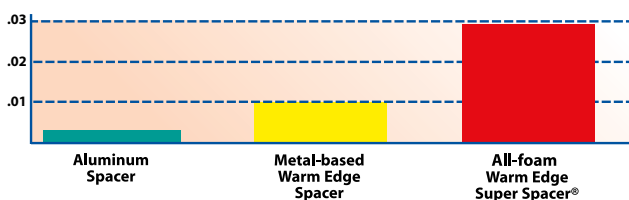
Windsor's glass fabrication line uses high-performance coated glazing from Cardinal Glass Industries. The insulated glass units produced on this line will be our standard glazing option, featuring 3/4" dual pane LoE 366 insulated glass with argon gas. This IG will deliver improved U-value performance over most other insulated glass. In addition, Windsor will also produce clear, Dual Low-E and tempered insulated glass. The Dual Low-E glazing option combines Cardinal LoE 366 soft coat with Cardinal i89 Low-E to create a super performance insulated glazing solution.

Building on our core values of superior quality, product selection, service and value, Windsor is proud to offer LoE 366 glass in all of our products. We believe the many superior and innovative features of Cardinal LoE 366 glass will bring measurable benefits to homeowners in all regions – and weather conditions – across the country.

## State-of-the-Art Lisec® Glass Fabrication Equipment

Windsor has installed an automated manufacturing system from Lisec in our facilities to provide you with the highest quality insulated glass (IG) available on the market today. Our highly-automated glass line requires no manual manipulation, which dramatically reduces seal failures caused by human contact with the glass. The robotic equipment provides an incredible level of accuracy for a fast and efficient material flow. Along with these features, we place our trust in Lisec, a company that has been in business for over 40 years and is the world's largest manufacturer of IG machinery.

## Best overall U-value improvement

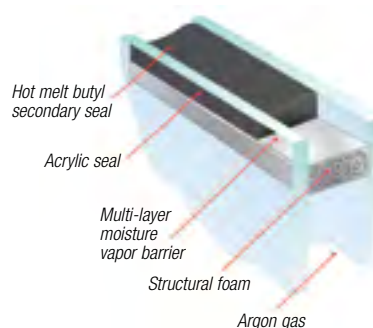
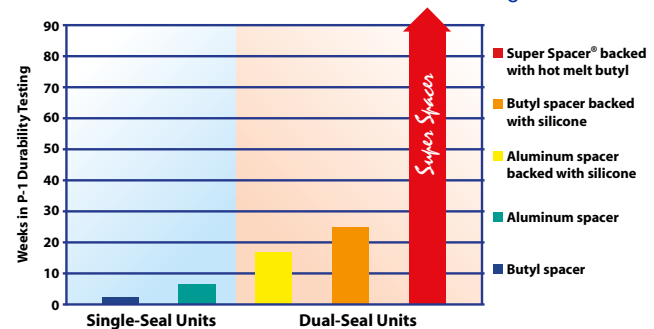


## Super Spacer® Technology

The Lisec production line features Super Spacer dual-seal moisture barrier technology that is designed to be one of the most thermally-efficient spacers in the marketplace. Super Spacer meets or exceeds ENERGY STAR® guidelines in all zones. The all-foam Super Spacers will reduce heat and cold conduction resulting in more comfortable living for the homeowner and fewer callbacks for the builder.

The 100% polymer foam formula is designed to reduce condensation and have superior Sound Transmission Coefficient levels. The all-foam, warm edge technology of Super Spacer improves thermal performance by over 200% with the best overall U-value improvements compared to a traditional metal-edged spacer. Super Spacer lasts up to five times longer in durability tests than conventional single seal units.

## Five times more durable than conventional single seal units



## Super Spacer®

Reverse dual-seal technology

(Airspace is not filled with argon in products with breathing tubes)



# Glossary of Terms

**AAMA:** *American Architectural Manufacturers Association.* A national trade association that establishes voluntary standards for the window, door and skylight industry.

**Acrylic:** Thermoplastic glazing material.

**Active:** An operating panel (X) as viewed from the exterior.

**Aerogel:** A microporous, transparent silicate foam currently under development for potential use as a glazing cavity fill material, offering very high thermal performance.

**Air infiltration:** The amount of air leaking in and out of a building through cracks in walls, windows and doors.

**Airspacer:** A component placed at the perimeter of an insulating glass unit to separate the two lites of glass.

**ANSI:** *American National Standards Institute.* A clearinghouse organization for all types of standards and product specifications.

**Annealed glass:** Standard float glass.

**Annealed PVC:** An added process in the cellular process to aid in stability of the product.

**Arch top:** One of several terms used for a variety of window units with one or more curved frame members, often used over another window or door opening. Also referred to as circle heads, circle tops and round tops.

**Argon:** An inert, nontoxic gas used in insulating glass to reduce heat transfer.

**ASHRAE:** *American Society of Heating, Refrigeration and Air Conditioning Engineers.* A national association that establishes standards for building energy performance.

**Astragal:** The center post between two swinging doors.

**ASTM International:** *Formerly the American Society for Testing and Materials.* A trade association that establishes material standards (including glass) and test methods. It has also produced a window installation standard.

**Awning:** A window with sash swinging outward from the bottom.

**Backband:** The millwork around the outside edge of the window casing, usually used when the casing consists of flat boards.

**Backbedding:** A material or compound used to seal the glass to a window sash.

**Balance:** A mechanical device (normally spring loaded) used in single and double hung windows as a means of counter-balancing the weight of the sash during opening and closing.

**Basic:** No mulling, no casing, no nail fin/drip cap, but ready for field/shop mulling or field/shop applied casings.

**Bay:** A combination of window units that project to the exterior. Usually features a large center unit with two flanking units at 30° or 45° angles to the wall.

**BETEC:** *Building Environment and Thermal Envelope Council.* Part of the National Institute of Building Sciences, BETEC is an organization representing government and industry, and is involved in communicating government policy and influencing standards development within the industry.

**Bi-hinge:** Windsor's term for two panel doors where both panels can open, hinged on the side, with one active panel and one passive panel.

**BOCA:** *Building Officials and Code Administrators.* One of the three model code groups in the U.S., now merging to form the International Code Council.

**Boot glazed:** A glazing method using a vinyl boot to surround the glass. Also called commercial glazing.

**Bottom rail:** The bottom horizontal member of a window sash or door panel.

**Bow:** A combination window that projects to the exterior. Usually features four or more window units in a radial or bow formation.

**Box bay:** A combination of window units that project to the exterior. Usually features a large center unit with two flanking units at 90° angles to the wall.

**Breather tube:** A tube placed through the airspacer and seal of insulating glass that allows the unit to accommodate changes in pressure between the time and location of manufacture and the time and location of installation, where it is sealed. Usually used to accommodate changes in altitude between plant and job site.

**Brickmould:** A type of external casing for windows and doors.

**Caming:** The metal used in the construction of decorative glass panels. Usually zinc or brass, it is also applied to single glass lites to create a decorative glass look.

**Casement:** A window with sash cranking outward, to the right or left.

**Casing:** The exposed moulding or profile around a window or door, on either the inside or outside, to cover the space between the window frame or door jamb and the wall.

**Caulking:** A compound for filling joints and sealing cracks to prevent leakage of water and air.

**Cellular PVC (CPVC):** An extruded polyvinyl chloride material used in window and door components and trim. Unlike rigid (or hollow) vinyl, it features a foam or cell-structure inside. Can often be nailed, sawn and fabricated like wood.

**Cellulosic composite:** Generally, a material combining an organic material, such as wood fiber, extruded with a plastic.

**Celuka PVC:** A process to add to the hardness of the product.

**Chain of Custody (CoC):** The process of tracking wood that derives from a certified forest through the manufacturing and distribution channels. Most commonly referenced certification systems are FSC and SFI CoC. Facilities that are CoC have the processes in place to track certified wood from the moment it enters the facility to the moment it leaves. Builders who use CoC wood can earn points toward the certification of a home through the LEEDs or NAHB standards.

**Check rail:** The bottom rail on the upper sash and the upper rail of the lower sash of a double hung window unit, where the lock is mounted. Also referred to as a meeting rail.

**Circle top:** One of several terms used for a variety of window units with one or more curved frame members, often used over another window or door opening. Also referred to as arch tops, circle heads and round tops.

**Cladding:** The material placed on the exterior of a wood frame and sash components to provide ease of maintenance. Common cladding materials include vinyl and extruded or roll-formed aluminum.

**Clear IG:** Two panes of glass sealed to form a dead air space between the two panes of glass.

**Clerestory:** A window in the upper part of a room with high ceilings that admits light to the center of the room.

**Combination door:** A screen or storm door used in combination with a primary door. Storm windows also are referred to as combination windows.

**Composite:** A term used for window or door components which consist of two or more materials, such as wood and plastic. Also refers to windows and doors that combine two or more materials in the frame or sash construction, such as a product with a wood interior and a vinyl or aluminum exterior.

**Condensation:** Water vapor from the air deposited on any cold surface that has a temperature below the dew point. Sometimes a problem on cold (and poorly insulated) window glass or framing that is exposed to humid indoor air.

**Corner cleaner:** A machine that removes the bead of excess material formed in welding vinyl window corners.

**Cottage double hung:** A double hung window in which the top sash is shorter than the bottom sash.

**CRF:** *Condensation Resistance Factor.* A rating of a window's ability to resist condensation. The higher the CRF, the less likely condensation is to occur.

**CRM:** *Customer Relationship Management.* A computerized system for tracking all contacts with customers and prospects.

**Dade County:** A Florida county, including Miami, which has set numerous standards and requirements for hurricane-resistant windows and doors.

**Daylight opening:** The amount of visual area seen through a piece of glass.

**Desiccant:** A material used to absorb moisture from within the sealed airspace of an insulating glass unit.

**Design pressure (DP):** A measurement of the structural performance of a window or door. Usually specified as one-half times greater than necessary based on expected building wind and weather conditions.

**Direct glaze:** A method of glazing a piece of glass direct to a frame using a stop glazed method. This method is commonly used in direct sets and radius units when no sash is involved.

**Direct set:** A geometric shape that incorporates all straight legs.

**Divided lites:** Separately framed pieces or panes of glass. A double hung window, for instance, often has several lites divided by muntins in each sash. These designs are often referred to as six-over-six, eight-over-one, etc., to indicate the number of lites in each sash. Designs simulating the appearance of separately-framed panes of glass are often referred to as SDLs or simulated divided lites. Designs using actual separate pieces of glass are sometimes referred to as TDLs or true divided lites.

**Dormer:** An area that protrudes from the roof of a house, generally featuring one or more windows.

**Double glazing:** Use of two panes of glass in a window to increase energy efficiency and provide other performance benefits. May or may not refer to an insulating glass unit.

**Double hung window:** A window featuring two operable sashes which move vertically in the frame.

**Double-strength glass:** Glass between 0.115 and 0.133 inches thick.

**Drip cap:** The moulding placed on top of the header brickmould or casing of a window frame.

**Edge effect:** Heat transfer at the edge of an insulating glass unit due to the thermal properties of spacers and sealants.

**Egress window:** A window designed to be large enough for a firefighter to climb in or a person to climb out in an emergency. U.S. building codes require each bedroom of a home to have an emergency exit window, with minimum sizes specified. Generally requires 20" width and 24" height opening and 5.7 square foot opening.

**Electrochromic glazing:** Glass or other glazing material that can be switched from clear to opaque electronically.

**Elliptical:** A double radius unit with tight radius on the end and a flowing/low arc radius on top with the height less than half the width.

**ENERGY STAR®:** A program sponsored by the U.S. Department of Energy that establishes minimum performance standards for windows to be recognized as energy efficient. Three different sets of standards for U-value and solar heat gain have been established for three different climate zones in the U.S. Qualifying windows have two or more panes of glass, warm-edge spacers between the panes, improved framing materials and Low-E coatings.

**ERF:** *Enterprise Resource Planning.* A computerized system that is used to manage all aspects of a company's operation.

**EuroWindow:** A consortium of European window, door and curtainwall industry associations involved in the development of common EU standards.

**Extended quarter:** Height greater than the width.

**Extension jamb:** A trim component that extends from the interior of the window frame to the interior wall.

**Extruded aluminum:** A heavier, thicker aluminum product used to clad the exterior of wood windows and doors.

**Extrusion:** The process, in which a heated material is forced through a die, used to produce aluminum, vinyl (PVC), and other profiles or components used in the production of windows and doors. Term also is used to refer to the profiles or lineals manufactured by this process and used to make window and door components.

**Fanlight:** A half-circle window over a door or window with radiating bars.

**Fenestration:** Originally, an architectural term for the arrangement of windows, doors and other glazed areas in a wall. Has evolved to become a standard industry term for windows, doors, skylights and other glazed building openings. From the Latin word, "fenestra," meaning window.

**Finger-joint:** A toothed joint used to combine two pieces of wood end-to-end.

**Fixed lite:** A non-venting or non-operable window.

**Fixed panel:** A non-operable door usually combined with operable door unit.

**Flashing:** A thin strip of metal or other material that diverts water away from a window, door or skylight.

**Float glass:** Glass produced by a process in which the ribbon is floated across a bath of molten tin. The vast majority of flat glass is now produced using this method. The terms "plate" glass and "sheet" glass refer to older manufacturing methods still in limited use.

**Flush door:** A door produced using two skins or faces separated by a stile-and-rail frame construction at the perimeter. Flush doors may be produced with a hollow core or solid core.

**Fogging:** A deposit or film left on an interior surface of a sealed insulating glass unit due to extreme conditions or failed seals.

**Frame size:** The actual box size of the unit, outside to outside dimensions (not including brickmould). This is an important dimension used with special size Windsor wood windows.

**French doors:** A pair of hinged doors that open from the middle. Also incorporates wider stile and rail components around the glass than typical glazed doors.

**French slider:** A sliding patio door using wider stiles and rails to replicate a French door look.

**FSC:** *Forest Stewardship Council.* The only globally recognized certification system that guarantees products have been made from environmentally and socially sustainable managed forests. FSC certifies forests and also the manufacturing and distribution chains, which would be CoC. The use of FSC CoC can earn builders points through the LEED and NAHB home certification program.

**Full round:** A circle unit with equal width and height.

**Fusion-weld:** A type of corner construction, used with vinyl and other types of windows and doors, in which a small amount of material on the ends of two pieces are melted or softened, then pushed together to form a single piece. Also referred to as a welded corner.

**Glass size:** The actual glass size of a unit. This is a common callout for most standard size Windsor wood products (except doors).

**Glazing:** The glass (and other materials) in a window or door. Also, the act or process of fitting a unit with glass.

**Glazing stop:** A component of the sash or door that pans horizontally. Also, the referral that holds the glass in place.

**Glider:** A window with a movable sash that glides horizontally. Also referred to as a horizontal sliding window.

**Gothic:** A radius unit that generally comes to a point at the top or a grille design that has a radius look without making a full circle.

**Grille:** Window pane dividers or muntins. It may be a type of assembly fitted to the interior of the window or door unit that can be detached for cleaning. Can be fitted inside the sealed insulating glass unit, when it is referred to as a grid.

**Half round:** A stock or special half round unit where the height is half the width.

**Handing/hinging:** Always viewed from the exterior.

**Hard-coat glass:** A glass product that is coated during the manufacturing process at the molten glass stage. Also known as a pyrolytic coating, this type of coating offers a surface that is generally as durable as an ordinary glass surface, and therefore requires no special handling and does not need to be used in an insulating glass unit. The other type of glass coating is a sputter-coat, which is applied in a secondary process. Sometimes referred to as a soft-coat, these types of coatings generally require some additional care in handling and fabrication, and must be used within an insulating glass unit.

**Head:** The main horizontal frame member at the top of a window or door.

**Header:** The horizontal framing member placed over the rough opening of a window or door to prevent the weight of wall or roof from resting on the frame. Also known as a lintel.

**Heat gain:** The transfer of heat from outside to inside by means of conduction, convection and radiation through all surfaces of a house.

**Heat loss:** The transfer of heat from inside to outside by means of conduction, convection and radiation through all surfaces of a house.

**Hollow-core door:** A flush door constructed with two skins or door faces separated by stiles and rails at the perimeter. Generally, a honeycomb type support is used inside the door between the two faces.

**Hopper:** A window with sash that swings inward from the top.

**Horizontal slider:** A window with a movable sash that slides horizontally. Also referred to as a gliding window.

**IBC:** *International Building Code*. Published by the International Code Council, the IBC primarily covers nonresidential construction.

**ICBO:** *International Council of Building Officials*. One of the three model code groups in the U.S., now merging to form the International Code Council.

**IECC:** *International Energy Conservation Code*. Published by the International Code Council, the IECC sets forth compliance methods for energy-efficient construction of both residential and nonresidential construction.

**Inactive:** A fixed panel (0) as viewed from the exterior.

**Inner bar (simulated spacer channel):** The spacer bar between the glass in a Windsor Divided Lite (WDL) unit. (This is not GBG.)

**Inner grille:** Windsor's term for a grille between the glass (GBG).

**In-sash:** Glass glazed in a sash before being installed into a frame.

**Insulating glass (IG):** Two or more lites of glass with a hermetically-sealed airspace between them. The sealed space may contain air or be filled with an inert gas, such as argon.

**In-swing:** Panels that swing to the interior, as viewed from the exterior.

**IRC:** *International Residential Code*. Published by the International Code Council, the IRC primarily covers low-rise residential construction.

**Jalousie:** A window made up of horizontally mounted glass louvers or slats that abut each other tightly when closed and rotate outward when cranked open.

**Jamb:** The main vertical members forming the sides of a window or door frame. Also refers to the horizontal member at the top of the window frame, as in head jamb and side jamb.

**Jamb depth:** The width of a window or door from the interior to the exterior of the frame to meet construction thickness.

**Jambliner:** The track installed inside the jambs of a double hung window, on which the window sash slides.

**J-channel:** Installed or built-in to the side of a window or door, this channel is designed to accommodate the ends of siding pieces to provide a finished appearance.

**Knocked down (KD):** An unassembled window or door.

**Laminated glass:** Two or more sheets of glass with an inner layer of transparent plastic to which the glass adheres if broken. Used for enhanced safety and security, as well as sound reduction.

**LEED:** *The Leadership in Energy and Environmental Design*. A benchmark system, established by the USGBC, which certifies green homes and buildings through an accumulation of points earned through the implementation of green practices. Buildings can earn LEED, Silver, Gold or Platinum levels of certification.

**Lineal:** A standard length profile or shape that is cut and processed to make window and door components.

**Lintel:** A structural component or beam above a window or door opening that supports the wall above. Also referred to as a header.

**Lite:** A piece of glass. In windows and doors, lite refers to separately framed panes of glass (as well as designs simulating the look of separately framed pieces of glass). Sometimes spelled "light."

**Lite cut:** The layout of a grille pattern.

**Low-emissivity (Low-E or LoE) glass:** A coated glass product which reflects heat.

**Managed forests:** Forests that have had a number of management techniques applied to them, including prescribed burning, thinning, harvesting and planting. Well-managed forests provide clean air and water, homes for wildlife, beautiful scenery, places for recreation and more than 5,000 products we use every day. Poorly-managed forests are often unhealthy and unproductive due to overcrowding, disease, insects and competition for light, water and nutrients. Poorly managed forests also account for a large number of wildfires. Managed forests are compatible with FSC and SFI.

**Marine glazed:** A glazing method using a vinyl boot to surround the glass. Also called commercial glazing.

**Masonry clip:** An accessory clip that is used to install windows into brick.



**Masonry opening:** An area in a masonry wall left open for windows or doors.

**MDF:** *Medium-density fiberboard.* A wood fiber composite used in a variety of window, door and millwork applications.

**MEC:** *Model Energy Code.* Established by Energy Policy Act of 1992 to serve as baseline for state energy codes. To be succeeded by International Energy Conservation Code (IECC).

**Mechanical window:** A term for a product, usually vinyl, in which the corners are assembled using screws or other fastening mechanisms, as opposed to a welded corner construction. Also referred to as a mechanically fastened window.

**Mullion:** A component used to structurally join two window or door units.

**Multi-point lock:** A locking system, operated with one handle, which secures a window or door at two or more locking points.

**Muntin:** A profile or moulding, either vertical or horizontal, used to separate glass in a sash into multiple lites. Generally refers to components used to construct divided lite grids or grilles simulating a divided lite look.

**NAHB:** *National Association of Home Builders.* Established criteria to certify green homes and buildings, which is accomplished through an accumulation of points earned through the implementation of green practices.

**Nail fin:** An accessory component or integral extension of a window or patio door frame that generally overlaps the conventional stud construction through which nails are driven to secure the frame in place.

**Narrow slider:** A sliding patio door using narrow stiles and rails for maximum daylight opening.

**NFRC:** *National Fenestration Rating Council.* A third party certification agency, which developed and operates a uniform national rating system for the energy performance of fenestration products.

**NFRC rating system:** The backbone of the rating system is a procedure for determining the heat transmittance (U-value) of a product. Additional rating systems developed by the NFRC measure Solar Heat Gain Coefficient (SHGC), Visible Transmittance (VT), Air Leakage (AL) and Condensation Resistance.

**Nonrenewable resources:** A limited supply of resources that can't be replaced once they've been extracted and used. These resources are being recycled, such as aluminum and plastic.

**NWWDA:** *National Wood Window and Door Association.* A trade organization that has established many standards related to wood window and door products. It is now the Window and Door Manufacturers Association (WDMA).

**One-step distributor:** A wholesale company that buys building products from a manufacturer and sells them to builders, contractors and homeowners is referred to as a one-step distributor. A wholesaler that buys building products from the manufacturer and sells them to lumberyards and home centers, which in turn sell to builders, contractors and homeowners, is referred to as a two-step distributor.

**Oriel:** A window style in which the upper sash is larger than the lower sash.

**Out-swing:** Panels that swing to the exterior, as viewed from the exterior.

**Palladian:** A large, arch-top window flanked by smaller windows on each side.

**Panel:** A component, usually wood, mounted within stile and rail members of doors. Also used to refer to the entire door.

**Panning:** In replacement window work, the outside aluminum trim that can extend around the perimeter of the window opening; used to cover up the old window material.

**Parting stop:** A narrow moulding, either integral or applied, that holds a sash or panel in position in a frame.

**Perimeter grille:** A grille with a perimeter frame. Also known as a surround grille.

**Picture window:** A large, non-operating window that is usually longer than it is wide and provides a panoramic view.

**Pivot window:** A unit with a sash that swings open or shut by revolving on pivots at either side of the sash or at top and bottom.

**Polycarbonate:** Plastic material used for glazing.

**Polyvinyl butyral (PVB):** Plastic material used as the interlayer in the construction of some types of laminated glass.

**Polyvinyl chloride (PVC):** Extruded material used for window and door framing.

**Post-consumer recycled material:** Any household or commercial product that has served its original, intended use and then gets recycled.

**Plate glass:** Flat glass produced by grinding and polishing to create parallel plane surfaces affording excellent vision. Although the term is still used commonly, most window glass is now produced using the float process. (See float glass.)

**Pre-consumer recycled material:** Industrial manufacturing scrap that gets recycled.

**Pre-hanger:** A company that buys doors, framing, hardware, glass lites and other components, and prepares (or pre-hangs) the unit for installation.

**Primary active panel:** The active panel (X) of a bi-hinge door.

**Prime window:** A primary window, as opposed to a storm or combination unit added on.

**Primed window:** An optional factory finish making units ready to accept finish coat(s).

**Projected window:** A window in which the sash opens on hinges or pivots. Refers to casements, awnings and hoppers.

**Pultrusion:** The process used to produce fiberglass composite profiles or components used for the production of windows and doors. Also refers to the composite profiles or lineals cut and processed to make window and door components.

**Pyrolytic glass:** A glass product that is coated, usually to provide low-emissivity or solar control benefits, during the manufacturing process at the molten glass stage. Commonly referred to as a hard coat, this type of coating offers a surface that is generally as durable as an ordinary glass surface, and therefore requires no special handling and does not need to be used in an insulating glass unit. The other type of glass coating is a sputter-coat, which is applied in a secondary process. Sometimes referred to as a soft-coat, these types of coatings generally require some additional care in handling and fabrication and must be used within an insulating glass unit.

**Quarter round:** A stock or special quarter round unit where the height and width are equal.

**Radiation:** The transfer of heat in the form of electromagnetic waves from one separate surface to another. Low-E glass is designed to reduce this type of heat transfer by reflecting electromagnetic waves.

**Radio frequency (RF):** The technology used with bar code scanners and other input devices in plant and warehouse tracking systems.

**Rail:** The horizontal member of the framework of a window sash or door.

**Reflective glass:** Glass coated to reflect visible light and solar radiation striking the surface of the glass.

**RESFEN:** A computer program designed to calculate energy use based on window selection in residential buildings.

**Rolled-form aluminum:** A cladding method using a rolled type method of bending. Mainly used in sash cladding.

**Roofwindow:** An operable unit similar to a skylight placed in the sloping surface of a roof.

**Rough opening:** A framed opening in a wall into which a window or door unit is to be installed.

**Round top:** One of several terms used for a variety of window units with one or more curved frame members, often used over another window or door opening. Also referred to as arch tops, circle tops and circle heads.

**Round top picture:** A true half round with extended legs.

**R-value:** Resistance to thermal transfer or heat flow. Higher R-value numbers indicate greater insulating value. R-value is frequently used by the insulation industry and is the reciprocal of U-value, a value more generally used in the window industry.

**Safety glass:** Strengthened or reinforced glass that is less subject to breakage or splintering and less likely to cause injury if broken. Law requires glass in doors to be some type of safety glazing product, such as tempered or laminated glass.

**Sash:** An assembly of stiles and rails (vertical and horizontal members) made into a frame for holding glass.

**Sash cord:** A rope or chain in double hung windows that attaches the sash to the counter balance.

**Sash lift:** A protruding or recessed handle on the inside bottom rail of the lower sash in a double or single hung window.

**Sash size/sash opening:** The actual sash opening of a unit. A generic or common callout for double hung products.

**Sash weights:** The concealed cast iron weights used to counterbalance the sash of older double hung windows.

**SBCCI:** *Southern Building Code Congress International.* One of the three model code groups in the U.S., now merging to form the International Code Council.

**Secondary active panel:** The passive panel (X) of a bi-hinge door.

**Segment top (seg-top) picture:** A segment radius unit with legs of same dimensions.

**Segment top (seg-top) quarter:** A segment radius unit with different dimensions for the legs.

**Self-cleaning glass:** Glass treated with a special coating. Currently, commercially available products feature a coating that uses the sun's N rays to break down organic dirt through what is called a photocatalytic effect. The coating also provides a hydrophilic effect, which reduces the surface tension of water to cause it to sheet down the surface easily and wash away dirt.

**Sequential locking system:** A type of multi-point locking system used on casement windows. Lower locks engage and partially close sash before upper locks engage.

**Set-up:** A unit complete with all mulling and casings applied, ready to install in rough opening.

**SFI:** *Sustainable Forest Initiative.* An initiative dedicated to improving sustainable forest management in the United States and Canada. SFI certifies forests and also the manufacturing and distribution chains, which would be CoC. The use of FSC CoC wood can earn homes points toward certification through the NAHB program.

**Shading coefficient (SC):** A measure of a window's ability to transmit solar heat, relative to that ability for a single pane of clear glass. The lower a unit's shading coefficient, the less solar heat it transmits, and the greater its shading ability. This method of measurement is being phased out in favor of the solar heat gain coefficient (SHGC).

**Sheet glass:** Transparent, flat glass found in older windows, now largely replaced by float glass.

**Sidelites:** Narrow fixed units muller or joined to operating door units to give a more open appearance.

**Sill:** The main horizontal member forming the bottom of the frame of a window or door.

**Sill nosing:** A double hung part added to the main sill of a unit.

**Simulated divided lites (SDLs):** A type of grille or grid design that creates the appearance of a number of smaller panes of glass separated by muntins, but actually uses larger lites of glass with the muntins placed between and/or on the surfaces of the glass layers.

**Single glazing:** A single lite of glass in a window. Generally not as energy efficient as insulating glass or other forms of double-glazing.

**Single hung:** A window resembling a double hung, or vertically sliding window, with a fixed top sash.

**Single-strength glass:** Glass with thickness between 0.085 and 0.100 inches.

**Skin:** A single piece of material used as the face of a door.

**Slab:** A complete door panel that has not been prepared for installation into a frame.

**Smart window:** A generic term, sometimes used for windows offering high energy efficiency or windows featuring switchable glass to control solar gain.

**Solar control glass:** Glass produced with a coating or tint that absorbs or reflects solar energy, thereby reducing solar gain.

**Solar heat gain coefficient (SHGC):** A rating, which is now generally replacing shading coefficient, measuring a window's ability to transmit solar heat. It measures both the solar radiation which is directly transmitted, as well as the solar radiation absorbed by the glass and subsequently transmitted. The lower a unit's solar heat gain coefficient, the less solar heat it transmits and the greater its shading ability. It is approximately equal to the shading coefficient divided by 1.15. It is expressed as a number without units between 0 and 1.

**Solid-core door:** A flush door produced with a solid material placed within the door skins.

**Soft-coat glass:** A glass product that is coated in a secondary process known as sputter-coating, usually to offer low-emissivity or solar control benefits. The term refers to the fact that these types of coatings generally require some additional care in handling and fabrication and must be used within an insulating glass unit. A hard-coat or pyrolytic glass is coated during the manufacturing process at the molten glass stage. This type of coating offers a surface that is generally as durable as an ordinary glass surface, and therefore requires no special handling and does not need to be used in an insulating glass unit.

**Sound transmission class (STC):** A rating measuring a window's acoustic properties or its ability to reduce sound transmission. An STC rating is determined by measuring the sound transmission over a selected range of sound frequencies. The higher the number, the less sound transmitted.

**Spectrally-selective glass:** A coated or tinted glazing with optical properties that are transparent to some wavelengths of energy and reflective to others. Typically, spectrally-selective coatings are designed to allow high levels of visible light or daylight into a building and reflect short-wave and long-wave infrared radiation.

**Spread mull:** A term used for adding a space between mulls. This dimension is based on width between frames, not exterior casing size.

**Sputter-coating:** A secondary manufacturing process in which a thin layer of materials, usually designed to offer low-emissivity or solar control benefits, is applied to glass. Sputter-coatings are commonly referred to as soft-coats, as they generally require some additional care in handling and fabrication and must be used within an insulating glass unit. A hard-coat or pyrolytic glass is coated during the manufacturing process at the molten glass stage. This type of coating offers a surface that is generally as durable as an ordinary glass surface, and therefore requires no special handling and does not need to be used in an insulating glass unit.

**Stat/stationary:** Does not move.

**Stick grille:** A grille without a perimeter.

**Stile:** The main vertical frame members of a sash or door.

**Stile-and-rail door:** A traditional type of wood door constructed with vertical stiles and rails with openings filled with raised wood panels or glass.

**Stool:** An interior trim piece sometimes used to extend a window sill and act as a narrow shelf.

**Stop:** A moulding used to hold, position or separate window or door parts; or the moulding or component on the inside of a window frame against which the window sash rests or closes. Also referred to as a bead, side stop, window stop or parting stop.

**Stop glazed:** A typical method using a stop with a glazing compound to make the seal.

**Stud pocket:** A spread mull with field knock out blocks for studs to run between mulled units.

**Subsill:** A casement part added to the bottom front of a casement to form the slope of sill.

**Super window:** A generic term for a window with a very low U-value. Typically incorporates multiple glazings, Low-E coatings, gas fills and an insulating spacer.

**Sustainability:** One aspect of the green movement that is commonly referenced. This focuses on the responsible use and management of resources, specifically concentrating on the use of renewable resources, rather than finite resources.

**Swinging door:** Windsor's term for all swinging door options, including singles, bi-hinge, center hinge; one, two and three panel options.

**Tempered glass:** Glass heat treated to withstand greater than normal forces on its surface. When it breaks, it shatters into small pieces to reduce hazard.

**Tenon:** A rectangular projection cut out of a piece of wood for insertion into a mortise.

**Thermal break:** A thermally insulating or low-conductance material used between interior and exterior aluminum (or other conductive material) window and door components.

**Tilt window:** A single or double hung window with operable sash that can be tilted into a room to allow cleaning of the exterior surface on the inside.

**Tints:** Gray and bronze, available as standard options on clear or Low-E IG.

**Transom:** A window used over the top of a door or window, primarily for additional light and aesthetic value.

**Triple glazing:** Use of three panes of glass or plastic with two airspace between. Generally refers to a sealed insulating unit.

**True divided lites (TDLs):** A traditional window construction incorporating smaller panes of glass actually separated by muntins, rather than simulating such an appearance with larger lites of glass and a muntin grid or grille placed between or on the surfaces of the glass layers.

**Tubular/hollow PVC:** An extrusion technique used for PVC windows to increase structural strength.

**Two-step distributor:** A wholesale company that buys building products from the manufacturer and sells them to lumberyards and home centers, which in turn sell to builders, contractors and homeowners. A wholesaler, which buys building products from a manufacturer and sells them to builders, contractors and homeowners, is referred to as a one-step distributor.

**U-factor:** A rate of heat flow-value through a building component, from room air to outside air. Also referred to as U-value. The lower the U-factor, the better the insulating value. U-factor, a rating more generally used in the window industry, is the reciprocal of R-value, a rating commonly used in the insulation industry.

**Ultraviolet light (UV):** Invisible rays of solar radiation at the short-wavelength violet end of the spectrum. Ultraviolet rays can cause fading of paint finishes, carpets and fabrics, as well as deterioration of some materials.

**Unit size:** The overall dimensions of a window unit, including brickmould, subsill, etc. for primed units. Frame size and unit size are the same for clad Windsor products.

**uPVC:** A polyvinyl chloride product commonly used in many construction products. The added "u" stands for unplasticized or rigid PVC. The "u" does not mean UV stabilized; all PVC is UV stabilized.

**USGBC:** *United States Green Building Council.* A nonprofit organization that promotes green building practices and educates people within the industry on what it means to be green. This organization is comprised of people in different realms of the building industry and has set the benchmark for the LEED home certification program.

**Vinyl:** A generic term for polyvinyl chloride or PVC, an extruded material used for window and door framing.

**Warm-edge:** A type of insulating glass construction using an air spacer offering lower thermal conductance than traditional aluminum spacers. Warm-edge IG units typically offer higher resistance to condensation and an incremental improvement in window energy performance.

**WDMA:** *Window and Door Manufacturers Association.* Formerly the National Wood Window and Door Association, this trade organization has established many standards related to wood window and door products.

**Weatherstripping:** A material or device used to seal the openings, gaps or cracks of venting window and door units to prevent water and air infiltration.

**Weep hole:** A small opening in a window or sill member through which water may drain to the building exterior.

**Weld:** A type of corner construction, used with vinyl and other types of windows and doors, in which a small amount of material at the two pieces are melted or softened, then pushed together to form a single piece. Also referred to as a fusion-weld.

**Wet glazed:** A typical method using a stop with a glazing compound to make the seal.

**Wildland/urban interface:** An area where buildings are bounded by wild or natural areas, which are a particular concern in regions where wildfires are a concern. Some fire and code officials are looking at the establishment of fire-resistance requirements for exterior building products in these "interface" areas.

**Windload:** The force exerted on a surface by moving air.



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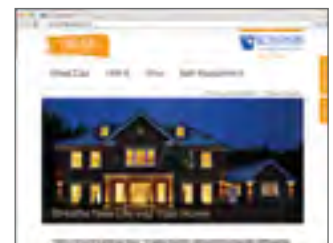
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