# Guaranteed

Performance

Window

Systems





# **NIFRAME**

The beauty is in the details . . .

beauty

comfort

security

New windows can improve your home's comfort, value and appearance. But the windows you select can make a big difference in what kind of return you get on your investment. How do you begin to find the right window for your home when they all appear to be so similar? Economy models may seem fine at first glance, but once you know what to look for in a window, you'll see what a big difference the little details can make. UniFrame windows are custom made to the exact specifications of your home for better-performing, better-looking results, with no unsightly gaps to patch and paint. Our windows feature state-of-the-art materials, precision engineering and proven construction methods, for windows that last a lifetime.









Fiberbeam sill reinforcement.

# Premium quality materials for a lifetime of hassle-free performance.

Not all vinyl windows are created equal. Low-grade PVC can bend, bow and discolor. That's why UniFrame windows are made from our high quality New Generation™ vinyl-the strongest, most advanced material we could find. Specially formulated uiPVC (polyvinyl chloride), New Generation vinyl withstands harsh weather and wear-and-tear better, with through-and-through color to resist the appearance of scratching and look like new for years to come.

### Fiberbeam™ with I-Beam Construction

Each UniFrame double-hung sill is reinforced with Fiberbeam™ Reinforcement with I-Beam Construction. Designed to resist wind velocity pressures of 75 pounds per square foot (equal to a wind load of 170 miles per hour) this technology provides added durability and strength to the sill of the window. The extra rigid sill maintains

its weather seal with the sash to keep out air and water in even the most ferocious hurricane wind conditions. Fiberbeam reinforcements are also included in UniFrame picture windows and sliding windows. For added strength the reinforcement is used in the sill and head of these windows.

# **Superior manufacturing methods ensure superior strength.**

Most windows are held together with staples or screws and caulk that can loosen or weaken over time. But UniFrame sashes and frames are pinch fusion welded — an advanced technique that permanently fuses all four sides together into a single weather-tight unit, guaranteed to stay strong and square for the life of the window. And instead of metal reinforcements which conduct heat and cold, UniFrame double-hung windows feature InterForce IITM high-performance internal fiberglass

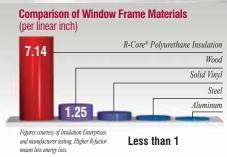
reinforcements for added strength, security and energy efficiency.

Independent tests prove UniFrame windows perform significantly better than the industry standard for vinyl insulating glass windows and much better than many wood or vinyl brands. That's because UniFrame windows feature the very best in thermal efficiency and technology, including:

### Patented\* R-Core® insulation

The R-factor (insulation value) per linear inch of a UniFrame window frame is seven times greater than that of an ordinary vinyl frame. The secret is our patented R-Core insulation – a high-density solid-polyurethane insulation, like the kind used in many refrigerator and freezer doors.

\*U.S. Patent Number 4,516,356



# I-Core and Energy Edge Glass Spacer Systems

Our best-in-class I-Core optional spacer system provides the warmest edge technology. Similar to our Interforce II fiberglass reinforcement, our I-Core center core is non-conductive yet still provides an integral structural component for long-term strength and durability. I-Core is the ultimate in insulated glass technology.

UniFrame's standard Energy Edge glass spacer system reduces thermal transfer around the glass perimeter by utilizing a unique U-shaped channel to separate glass panes and interrupt the natural flow of heat to cold.

### UniFrame Glass Systems

UniFrame windows feature the very best in thermal efficiency technology and your choice of five grades of insulating glass packages for optimal performance. Each system incorporates either argon (40%\*\* denser than air) or krypton (190%\*\* denser than air). These safe, naturally occurring gases help to block the transfer of heat better than air which increases energy efficiency, adds protection from the sun's damaging rays, and helps to deaden sound.

## **Enhanced Protection**

UV energy is the primary component responsible for fading of furnishings and overall deterioration of fabric quality. The more a window product can reject or absorb of the suns UV energy, the longer the life and quality of the furnishings being protected. The Low-E coatings in Hi R+Plus or Maxuus 10 helps to block this harmful UV energy.

JV Energy Blocked	
nsulating Glass Type	Percent of UV Blocked
Clear Insulating	46%
Hi R+Plus	<b>83</b> %
Aaxuus 10	93%
Percent blocked values were obtain ansmission meter.	ned by readings from an energy

### \*\*Figures courtesy of Linde Gas, Inc.

# Choose your level of comfort.

For optimal thermal performance, UniFrame offers five grades of insulating glass:







Maxuus, Maxuus 5 and the Maxuus<sup>SC</sup>, Maxuus5<sup>SC</sup> glass systems have two lites of Low-E or Low-E<sup>SC</sup> (solar cooling) glass and an insulation chamber of argon or krypton gas. 7/8" insulated glass units make these windows more than four times as energy efficient than single glass.

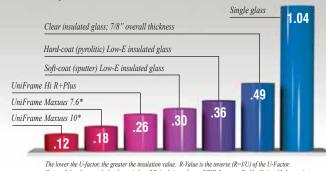


The Maxuus 7.6 or Maxuus 7.6 glass systems deliver high performance with triple pane combining two panes of multilayered vacuum-deposition Low-E or Low-Esc (solar cooling) insulating glass with an interior glass substrate and two insulating chambers of argon gas. The result is an insulated glass unit that is nearly six times more energy efficient than single glass.



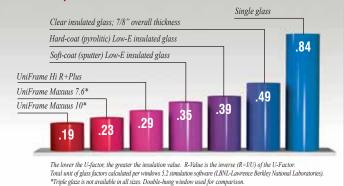
**Our Maxuus 10 and Maxuus 10**sc glass systems are the ultimate energy systems with triple pane combining two panes of multilayered vacuum-deposition Low-E or Low-Esc (solar cooling) insulating glass with an interior glass substrate and two insulating chambers of krypton gas. The result is an insulated glass unit that is ten times more energy efficient than single glass.

### Glass Comparison – Center of Glass – U-Factor



The lower the U-factor, the greater the insulation value. R-Value is the inverse (R=I/U) of the U-Factor. Center of glass factors calculated per windows \$2 simulation software (LBNL-Lawrence Berkley National Laboratories "Firlpe space is not available in all sizes. Double-hung window used for comparison."

### Glass Comparison - Total Unit of Glass - U-Factor





# The Great Lakes UniFrame window was designed with Quality in Mind, but don't iust take our word on it. let the product certification speak for itself.

UniFrame windows meet the ENERGY STAR requirements for your region. The ENERGY STAR program is a voluntary partnership between the Environmental Protection Agency (EPA) and participating window manufacturers. ENERGY STAR performance requirements are tailored to fit the energy needs of the country's 4 different regions — Northern, North/Central, South/Central and Southern states. Your investment in ENERGY STAR windows will pay for itself over time, and then the savings is money in the bank every year!

UniFrame windows ... good for you, good for your home and good for the environment.

### **Advanced Easy Clean® Glass.**

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





Our windows are constructed with rugged, maintenance-free New Generation uiPVC. Unlike wood or metal windows which can stick, swell, deteriorate, pit or rot, UniFrame windows will look like new year after year.



UniFrame windows are entirely pinch fusion welded – both sashes and mainframes. We weld vinyl sections together to create a solid, one piece unit that won't come loose or weaken over the years.



casement window hardware keeping it beautiful for the life of your window.

In addition to our thermally superior vinyl, UniFrame window mainframes and sash are filled with patented\* R-Core.© This

high-density, solid-polyurethane insulation increases both

thermal performance and sound deadening properties.

Corrosion and Ultra Violet resistant coating featured on all



Each UniFrame double-hung sill is reinforced with Fiberbeam Reinforcement with I-Beam Construction. Designed to resist wind velocity pressures of 75 pounds per square foot. This technology provides added durability and strength to the sill of



I-Core, a third-generation warm edge spacer system, contains no metal and is the highest performing spacer available today. The optional I-Core spacer system creates the most energy efficient glass option available on the market today.



Our double-hung windows feature InterForce II\* internal fiberglass reinforced meeting rails for unsurpassed strength and durability.

# Lifelime Plus Warranty

# **Guaranteed for as long as you** own your home. And beyond.

What good is a warranty if it's full of exemptions, exclusions and pro-rated fees? The makers of UniFrame windows believe so strongly in the durability of our products that we back the entire window unit with a

hassle-free guarantee including an unprecedented lifetime non-prorated seal failure and glass breakage warranty. It's called our "Lifetime Plus" warranty. It covers everything from the frame, sash and glass to seals. hardware and screens for as long as you own your home. It's our

of proving to homeowners that as a longstanding and respected leader in this industry, we have absolute confidence in our products. And it's transferable to the next homeowner when you

decide to sell — helping you protect your investment by increasing your home's value.

Offered by a high quality, customer focused dealer network, UniFrame is the product of choice for many homeowners across the country. Combining the best product with quality installation and consistent customer service is the cornerstone of the UniFrame product offering. So if you decide UniFrame is right for your home, you can rest assured that you will get the best of all three.

UniFrame windows are manufactured by Great Lakes Window, owned by Ply Gem Industries, a large manufacturer of building products in North America. With that kind of solid financial base, you can rest assured that we'll be around to honor your warranty claim-if you ever need to make one.





# Double-Hung

# Windows

For decades, double-hung windows have been the style of choice in homes across the U.S. Today this classic window remains the standard for the vast majority of replacement window projects. While the

appearance of double-hung windows has not changed dramatically over the years, their construction, durability and energy efficiency have. UniFrame offers discerning homeowners the ability to maintain the traditional look of double-hung windows while enjoying all the benefits modern technology has to offer.

Premium uiPVC vinyl construction, R-Core

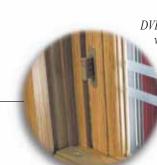
cam-action locks nbine with narrow

> InterForceII® dual fiberglass-reinforced sash meeting

Flush-mounted

sight-lines to

make this an exceptionally beautiful window.



DVL™ limit-lock allows windows to be vented without sacrificing security. Passes forced entry resistance *Grade 10.\** 

Contoured "wave" handle for practical beauty.

These mulled double-hung windows feature Golden Oak woodgrain and Regal Prairie glass.

\*Passes ASTM F 588-97 (Grade 10) forced entry resistance.

Painstaking attention to detail resembles the traditional look of handcrafted wood windows, from coved molding and glazing bead to narrow sight lines.

# **Greater comfort.** Lower energy costs.

Fusion-welded frame and sash and InterForce IITM fiberglass reinforced meeting rails provide a lifetime of unsurpassed strength. R-Core™ polyurethane fill and heavy-duty weatherstripping dramatically reduce heat transfer and air infiltration for exceptional thermal performance and reduced energy costs. Sloped sill keeps wetness out without unsightly weep holes.

### **Customize your** level of thermal protection.

With three grades of multilayer vacuum-deposition softcoat low-E glass to choose from, there's one to fit your needs. And all windows come standard with a full 7/8" Energy Edge standard glass spacerfor protection against cold corners and condensation.

# **Security** is an open and shut case.

Our balance and lock system is computer calibrated to guarantee a lifetime of worry-free operation. Flush mounted cam-action locks and concealed tilt latches provide unobtrusive security when windows are closed. Ventilation limit locks provide extra peace-of-mind when windows are partially

# Free up more free time.

With maintenance free uiPVC construction, there's never a need to caulk or paint. Optional Easy-Clean glass needs cleaning half as often and with half the effort. And say goodbye to those unsteady ladders. With tilt-in sashes, you can wash all your windows and even remove your screens from inside.

Double-hung windows feature tilt-in sashes to allow safe, easy cleaning.



# Casement & Awning

# W i n d o w s

insulation and fiberglass reinforcements ensure strong, dependable performance. Improved manufacturing techniques, advanced glass and glazings, and an innovative spacer system provide optimum

thermal efficiency. Tilt-in sashes
and optional advanced EasyClean™ Glass make cleaning fast,
safe and simple. Best
of all, UniFrame double-hung windows are available with a
variety of decorator glass
options, exterior and interior
colors and woodgrain finishes

— to create a custom look for your custom made windows.

Undeniably distinctive. Unmistakably

European. Irresistibly charming. Many
homes just wouldn't look the same
without the romantic touch of casement windows. While well-loved for

their looks, casement
windows of years past
were notoriously poor
performers when it came
to keeping out cold,
wind and rain. Not so
with UniFrame casement
and awning windows.
Combining old world
charm with modern day
durability and energy
efficiency, UniFrame

helps you love your casement windows all year round. Designed for beauty and energy efficiency,
UniFrame casement windows are a great addition to the contempo-

rary and traditional homes alike. With clean lines and large viewing areas casement windows are great for letting in the outdoors.

And with our multi-point locking system and airtight weatherstripping, your UniFrame windows are sure to keep you secure and comfortable, keeping the outdoors... outdoors.







### Accent on aesthetics.

Our carefully crafted casements feature a sculpted frame and coved glazing bead for a truly authentic look. Narrow site lines provide the largest possible viewing area. Combine single-, twin-, triple- and quad-continuous mainframe styles, plus both operating and fixed units for complete design flexibility.

# **Naturally superior hardware.**

UniFrame casement windows feature E-Gard<sup>TM</sup> hardware. E-Gard resists chemicals, corrosion and UV rays to retain its strength and beauty for the life of your window. And unlike other kinds of hardware, its environmentally friendly manufacturing process doesn't consume or create hazardous materials.

# We have a lock on security features.

Our easy-to-reach multi-point locking system secures at critical points along the window jamb-all with a single locking handle.

An interior glazing bead enhances security by deterring glass removal from outside the home, and provides a waterproof seal to help protect the insulating glass.

# **Design drama without the drafts.**

Unlike your old casement windows, ours feature highdensity R-Core insulation in the frame for extra protection against heat transfer; a full 7/8" Energy Edge standard glass spacer and heavy-duty weatherstripping protect against air infiltration; and with three grades of high performance softcoat Low-E glass to choose from, you can select your level of comfort.



Casement and awning window single-lever multi-point locking mechanism.







# The window worthy of the view beyond it.

Frame that fabulous view with the warm look of real wood. Choose stain-grade wood in oak or birch for the head, seat and jambs. Coved beading and a carefully sculpted frame match perfectly, providing the authentic detailing you demand. Our bay and bow windows are available with casement and double-hung window styles.



# A decorating idea you'll warm up to.

Enjoy lower energy bills-even with larger windows, thanks to our R-Core insulation, Intercept glass spacer and Low-E glass. Special insulation along mulling points adds warmth, while operating casement windows seal tight for protection against air infiltration.

# Your home never had it so easy.

Solid uiPVC construction keeps your bay or bow windows looking brand new with no painting or scraping. Casement hardware lets you adjust operating windows to clean both interior and exterior from inside your home.

# Security is a beautiful thing.

For added security, our easy-to-reach multi-point casement locking system locks securely in several places along the window jamb. For ease of use, the entire system is activated by a single handle.

Colonial Cherry bay window featuring Star-beveled leaded designer glass for traditional beauty (left). Beautiful bow window featuring Williamsburg Colonial grids (right).



Standard

# Bay & Bow

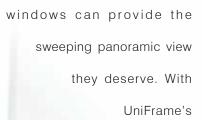
# Windows

Whether your dream landscape is your garden, the forest, a river, or the 18th hole, some views just beg to

premium quality
materials, superior construction and energy-efficient
features, it's easy to enjoy the beauty

be seen. When
a standard window
doesn't do justice
to your surroundings, UniFrame
bay or bow

of the great outdoors
without paying to heat
a n d c o o l i t.
Or leave the scenery in
the background and
turn the window



itself into a dazzling focal point with our custom glass options described on pages 18 and 19.



# Garden

# Windows

# Take your place in the sun.

Select the windows that fit your home and style. Our traditional garden window features a cross bar between the top and front glass panels. For optimal energy efficiency we recommend an optional insulated seat. And if DuPont Corian® is currently a part of your homes décor, or if it is currently on your wish list, why not choose from our six colors available for your new garden window.

# Options for clearly superior glass.

Glass is even more important in a garden window. Our multi-layer vacuum-deposition soft-coat Low-E glass series offers you the perfect level of thermal protection. For the ultimate in convenience, consider opting for Advanced Easy-Clean® Glass. It stays cleaner longer and cuts cleaning time in half compared to ordinary window glass.

# Built for lifelong strength and beauty.

Every garden window frame is made of extra thick uiPVC and fusion-welded for added durability. With your choice of white or camel colors throughout or an earthtone exterior with white interior, there's no painting or scraping, ever. And stainless steel hinges never rust so they'll always look like new.

# We believe in shelf-help.

Our garden windows feature an interior shelf perfect for your plants. Shelves are tempered glass on units under 50" wide; coated wire shelves are included on larger units.

# Enjoy a breath of fresh air.

Casement-style side lites allow for ventilation and feature our easy-to-operate, easy-to-reach multi-point locking system.

# Sliding & End Vent

# Windows

# 

# Picture perfect design.

Narrow sight lines maximize your viewing area while a sculpted glazing bead carefully replicates the look of authentic wood windows. For extra character, add one of our designer glass or decorative grid options in your choice of popular colors.

# Lock in a sense of security.

Every window over 26" high features two heavy-duty sash cam locks. An interior glazing bead adds another layer of protection, sealing out water, and making glass difficult to remove from outside the home.

# We go to extremes, so your energy bills don't.

Enjoy optimal thermal performance from our combination of energy-smart features, including R-Core insulation in the frame and sash, our Standard Energy Edge glass spacer system and extra thick weatherstripping to protect against air infiltration, and your choice of glass from our high performance multilayer vacuum-deposition softcoat Low-E glass series.

These white sliding windows feature matching Colonial grids.

# European In-Swing Sliding Windows

# Two more reasons to love them.

State-of-the-art operating hardware allows UniFrame European In-Swing Sliding Windows to either glide or swing open

You'll find in-swinging sashes to be both charming and functional, providing large, unobstructed views, maximum ventilation and easy cleaning. Friction locks provide safety and security by preventing unwanted sash





The European-style tilt-in feature makes it especially easy to clean the outside of your windows.

# Premier Luxury Performance

Doors



Love the look of picture windows, but not the restrictions of an inoperable unit? Sliding windows let you frame your view beautifully while retaining the ability to let in fresh air. Or, if you prefer to bring even more of the outdoors inside, choose a garden window. Letting in sunlight on four sides, it's like a mini-greenhouse. The perfect way to grow and show your favorite plants.





Classic Brass\*





Oil Rubbed Brass

This Premier Luxury Door features Golden Oak woodgrain, and Williamsburg Colonial grids and our optional keylock in Classic

No matter what size or style home you live in, there's a Premier door for you. A choice of 5, 6 and 8-foot twopanel widths, 9 and 12-foot three-panel widths, or 10, 12 and 16-foot four panel widths plus a wide selection of designer glass styles let you create the prefect door down to the smallest detail.

### Weathers the elements better.

Unlike older patio doors, Premier patio doors are weathertight and energy efficient. Insulated, fusion-welded frames and heavy-duty weatherstripping seal out drafts for year-round comfort. And with full one-inch thick insulating glass, in your choice of four grades from our multi-layer vacuum-deposition soft-coat Low-E glass series, a dramatic doorway doesn't have to mean dramatic energy bills.

# **Beautifully safe and secure.**

Our unique three-point locking system provides greater protection against forced entry. The locking system engages at critical points along the jamb when the door is closed and pulls the panel up tight to the jamb for a feeling of complete security and peace of mind. For extra convenience, opt for our solid brass keylock and use your sliding patio door as your primary entrance.

# **Designed for your busy**

A tandem roller system spreads the door's weight over two rollers at once. eliminating flat spots and making our patio doors super easy to slideno matter how many times they're opened and closed. A heavy-duty fiberglass sill provides superior strength, resists frost and condensation and enables easier door operation. And a textured polyurethane surface provides anti-skid protection for sure footing every step of the way.



Unique three-point locking system.

**Distinctive Style.** 

Choose from our matching Classic, Narrow Brass, Williamsburg, or Georgian styles. Or for an elegant twist choose one of our beautiful Regal V-groove glass options. See page 19 for style descriptions.



Classic Brass handle



Camel and White

Optional footbolt lock for added security with the ability to lock when partially open.



17

system that enables a door weighing up to 550 pounds to glide smoothly open and close with just the push of a finger. A mere eight pounds of force is all it takes to operate compared to up to thirty pounds for a standard sliding door.

Open it once and you'll forever prefer to glide through life.



(Standard)





Oil Rubbed

*The EuroGlide operating* system literally lifts the door panel off the sill to allow the door to glide effortlessly with the push of one finger.

\*See dealer for actual color sample.

# Solar Control

# Optional Solar Blind or Solar Shade

If solar control is on your mind, then try our cooling tint colors. They reduce the blinding visible light from the sun during sunrise or sunset. And reduce the sun's extreme heat as you are beginning or winding down each day.



If you desire the ultimate in solar control, then you will fall in love with our new Solar Blind and Solar Shade options. Our Solar Blinds are available in Lift and Tilt operation and are available in Gray, White, Gold, Almond or Tan colors. Our Solar Shades interior color options are White, Taupe, Almond, Charcoal and Gray.

The exterior of the shade is reflective silver for optimum performance.





The elegant appearance of the Premier Luxury Performance Door is undeniable. Yet its beauty runs even deeper. For within its precision crafted frame lies the exclusive EuroGlide operating system. This remarkable technology dramatically reduces the effort required to operate the door. In fact, it's effortless.

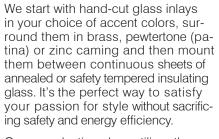
# Custom Mindow G I a s s

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





Accent color options



Our reproduction glass utilizes the traditional hand-pour manufacturing technique, giving it the genuine surface textures found only in hand-ladled glass. Authentic glue-chip techniques create a softly subtle obscurity that shimmers in reflected light and glows in transmitted and ambient light.

A selection of designs and accent colors lets you create the perfect windows to complement your home. For a Victorian feel, choose the oldworld charm of our "classic" designs. For a modern twist on the traditional, consider our "original" collection-distinctive adaptations of traditional patterns specially designed to appeal to today's architectural styles. Or for a thoroughly modern blend of balance, symmetry and sophistication, opt for one of our "contemporary" designs inspired by the deco, cubist and prairie movements.



Star-beveled



Vermillion



Ceylon



Manistique



La Parisienne



Tiered Monastery





Bratenahl

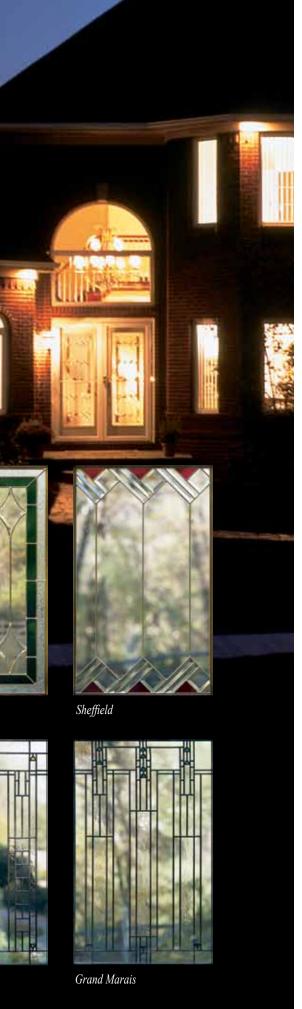


Aurora

Charlevoix



Grand Traverse



# Features &

# Options

UniFrame windows are more than custom-made to size; they're custom-made to style as well. We provide a palette of popular frame colors and glass options – you provide the inspiration. Mix and match frame colors to complement your interior and exterior décor, and select from a variety of decorative glass options ranging from distinctive to dramatic. After all, they're your windows.

How do you see them?

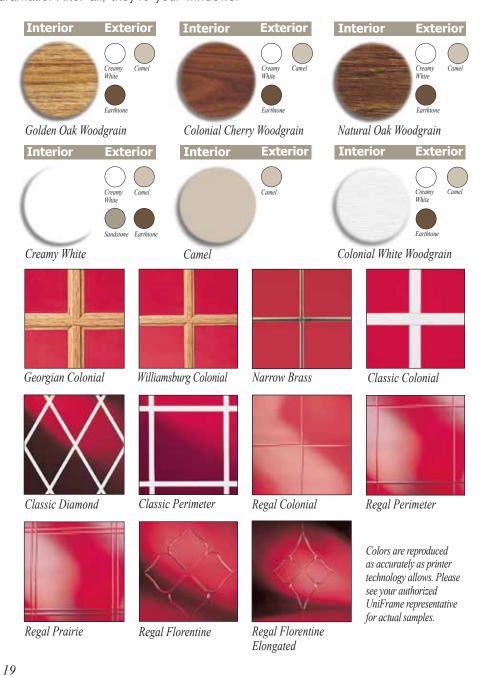
# **Customize your** windows-inside and out.

UniFrame windows and doors are available in six colors and natural-looking woodgrain finishes. To best complement your home's décor, UniFrame windows can be manufactured in any combination of interior and exterior colors, unless otherwise indicated. Bay and bow windows also feature stained-grade birch or oak on the head, seat and jambs, which can be stained or painted as desired.

# Distinctively beautiful. Surprisingly practical.

If you love the traditional look of multipaned windows, but hate the work traditionally involved in cleaning them, you're in luck. UniFrame offers a number of glass styles with integral grids-decorative muntins mounted between two panes of insulating glass for easy cleaning. Choose from Beveled-leaded, Classic, Narrow Brass, Williamsburg or Georgian Colonial styles. Or, for a contemporary twist on this perennial favorite, choose one of our beautiful Regal V-groove cut glass grids.

And you don't have to trade aesthetics for thermal performance. Each of our decorative glass styles combines elegant detailing with full insulating glass energy efficiency.



UniFrame Windows P.O. Box 787 Wexford, PA 15090-0787 888-9PLYGEM www.uniframewindow.com