



# WINDOW Shopping?

We Have the Answers

Custom  
View   
WINDOWS & DOORS

# *A straight forward guide to choosing the right replacement windows for your home.*

If you're looking for replacement windows, you probably have a lot of questions and concerns. What should I look for? How can I tell if a window is well made? Which features are worth the money? What kind of warranty should I expect?

For most people, replacement windows are a considerable investment. This guide will help you compare "apples to apples", so you can get the best window for your money. You may even pick up a tip or two on the advantages certain window styles can offer.

Replacing your windows should be a once in a lifetime, worry-free home improvement that is both fun and rewarding. If you have further questions about replacement windows and patio doors, we'll be happy to help. Visit our website at [www.customview.net](http://www.customview.net) or call Custom View Windows & Doors at (520) 795-4104.

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## Window Construction & Maintenance

**Q:** Why should I buy custom replacement windows?

**A:** Because custom windows fit perfectly. Stock windows, like those used by builders or sold in lumberyards, are available only in certain sizes. Since many window openings are not the same ‘standard’ sizes as stock windows, you’ll be left with several inches of open space around the entire window. Carpenters generally fill this space with gypsum board or molding. This not only reduces your viewing area and detracts from your home’s beauty, but you have extra wall space to patch, paint, and decorate. Custom windows are designed, engineered and manufactured to fit your home’s size, style and appearance without reducing your viewing area.

**Q:** Can I install custom-made windows myself?

**A:** Yes, but the better question might be, “Should I install custom-made windows myself?” Professional installers have all the necessary equipment to do the job right, like bending exterior trim panels to make them more visually appealing. Measuring the size of the window is also extremely important. If your measurements are off by as little as 1/4”, a custom-made window may not fit. We strongly recommend that you let a professional do the job for you.



**Q:** What’s the difference between vinyl, wood and aluminum windows?

**A:** New Generation TM uiPVC – the strongest, most advanced vinyl for windows – provides the best combination of convenience and long-lasting beauty. With New Generation uiPVC, the color is through-and-through. It never needs painting and won’t show scratches, unlike aluminum or wood windows.

Vinyl is also a better insulator. It doesn’t conduct heat or cold like aluminum – a major source of lost heating/cooling energy. And it doesn’t swell and shrink like wood when temperatures change. So vinyl maintains its shape, saves your heating/cooling dollars and stays warmer to the touch.

Today the majority of replacement windows are vinyl.\* But just because a window is made of vinyl doesn’t mean it’s superior. The design, engineering and manufacturing of the window all help distinguish a poor window from a superior window.

**Tip:** Avoid low-grade PVC – this material can bend and bow or discolor. Be sure it’s heavy-duty New Generation uiPVC.

\*SBI Market Profile: Windows 1999

**Q:** I've heard window corners can separate and leak air. What's the best way to put windows together?

**A:** Windows (and doors) are the #1 source of a home's energy loss and a lot of heated or cooled air can be lost through the frame (See R-Factors under Energy Efficiency).

Most wood windows are put together with staples; most vinyl and aluminum windows are screwed together and then caulked. The day they leave the factory, most windows are perfect. But construction methods can make a big difference five years or even twenty-five years after your windows are installed.

Look for windows in which frame and sash corners are joined in the sturdiest way possible. The most durable process we've found is a technology called 'pinch' fusion welding.

**Q:** What is pinch fusion-welding?

**A:** Pinch fusion-welding is the latest technology in window construction. It utilizes intense heat and specialized equipment to bond the corners of all four sides of a window's sash and frame into a single unit. Pinch fusion-welding results in a stronger, more stable window. It's more energy efficient because the corners remain fused and airtight for the life of the window – an important element to look for in a window's warranty.

And unlike windows welded with older equipment, pinch fusion-welded windows have attractive, seamless welds. Both the interior and exterior of the window's corners are clean and smooth, without bulky 'flashing' or overlap that can result with the old welding technique. And, they never need caulk so they're virtually maintenance-free.

**Q:** My old windows used putty to hold the glass in place. Is there a better way?

**A:** The use of putty for window glazing has, for the most part, been phased out. But many window manufacturers still use two-sided tape to hold their glass units against the window sash. Custom View Windows & Doors utilizes a state-of-the-art process called silicone autoglazing. This method securely and permanently bonds the insulated glass unit to the sash frame and provides increased durability, energy efficiency and maintenance freedom. Manufacturing our window sashes and insulated glass units as a one-piece unit is just one of the ways you're ensured of worry-free windows.

**Q:** What are cam locks and ventilation locks?

**A:** Cam-action locks are the thumb-turn locks traditionally used on double-hung windows. They reduce drafts by tightening the sashes together.

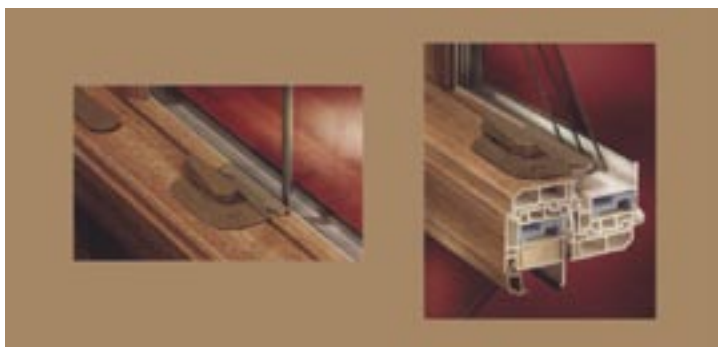
More importantly, cam locks improve security. Some manufacturers use two locks only on windows 32" or more in width. We recommend (and provide as standard) two pick-resistant locks on double-hung windows 25" or wider, and on sliding windows with heights of 25" or more.

Ventilation-limit locks are stops in the sash, which permit windows to be opened partially while retaining security. They can be an added safety advantage in homes with small children. Be sure to look for them on windows as you shop around. Ventilation-limit locks are a standard feature on all Custom View double-hung windows.

## *Energy Efficiency*

**Q:** I understand aluminum is sometimes used to reinforce vinyl windows?

**A:** It's true, many manufacturers use metal to reinforce their windows. However, Custom View windows feature InterForce II™ high-performance internal fiberglass reinforcements. These reinforcements are actually stronger and far more energy efficient than those made of metal.



**Q:** Are Custom View Windows ENERGY STAR Qualified? 

**A:** Yes. Our Low-E glass system has earned us ENERGY STAR Qualification in all regions of the United States. ENERGY STAR is a voluntary partnership between the U.S. Department of Energy and window manufacturers. ENERGY STAR qualification should be one of the factors you consider when choosing a replacement window.

ENERGY STAR qualification is based on NFRC certified product ratings.

**Q:** What is a U-factor? Can't it help me choose a better window?

**A:** The U-factor is a standard measure of heat transfer through an entire window unit. The methods for measuring U-factor ratings were developed by the National Fenestration Rating Council (NFRC) at the request of the U.S. Department of Energy and the Federal Trade Commission.

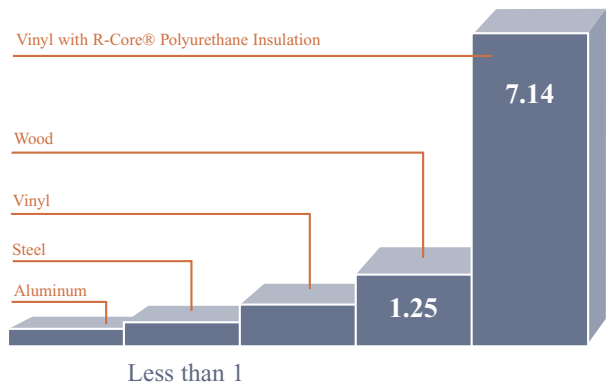
The lower the U-factor the better the window's insulating ability. (A window's U-factor is the reciprocal of its R-factor, they both measure its insulating ability.) Look for windows with low U-factors and high R-values.



**Q:** What are the R-factors for various window frames, and what is considered acceptable?

**A:** The following chart shows you the R-factors of different frame materials. The higher the R-factor, the better the energy efficiency. And as with any measure of energy efficiency, its not so much what's considered acceptable, as what's acceptable for you. We fill every window frame with patented \* R-Core (pre-expanded high-density solid polyurethane insulation). The same type of insulation used in many refrigerator/freezer doors. Our process of utilizing pre-expanded insulation eliminates voids and settling that can reduce the effectiveness of other insulating methods. Our process increases the per linear inch R-factor of a vinyl window frame from less than one to 7.14. If you want maximum energy efficiency, it makes sense to choose the window frame filled with pre-expanded high-density solid polyurethane insulation.

*R-Factor Comparisons of Various Window Frames (per linear inch)*



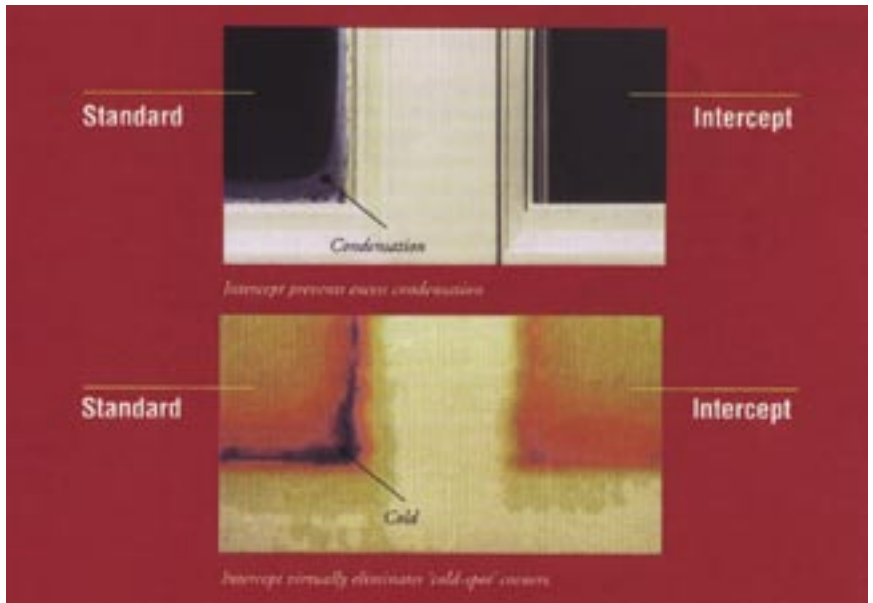
**Q:** What is “warm edge” technology and how does it affect thermal efficiency?

**A:** “Warm edge” technology gives windows the strongest, longest-lasting and most thermally efficient insulated glass available. The Intercept™ process, the most state-of-the-art insulated glass spacer system available, is standard with most Custom View Window products. It’s an insulated spacer system using a one-piece U-shaped channel to maintain consistent space between the two panes of glass. This U-shaped system reduces the transfer of heat and cold and makes the entire unit stronger and more energy efficient. And, unlike many of the most popular insulated spacer systems, Intercept™ passes the critical Moisture Vapor Transmission Rate Test ... which means the gas inside the window’s insulated glass unit will stay in and moisture that fogs the glass will stay out.

**Q:** Is all window glass the same?

**A:** Definitely not. Glass is available in a variety of types and colors including clear, gray, bronze, obscure and Low-emissivity (Low-E).

Glass is rated in R-factors, too – the same used to rate window frames. The type of glass, thickness, number of panes, distance between panes, as well as, the manner in which panes are connected, all affect the R-factor performance of the window.

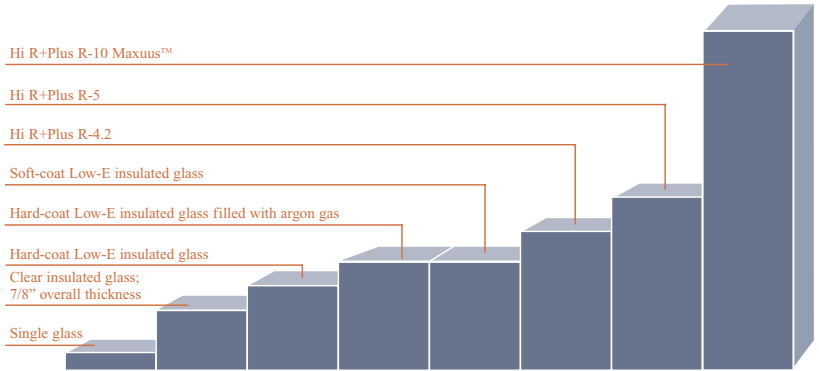


**Q:** Is all Low-E glass the same?

**A:** Definitely not. There are two major types of Low-E glass: hard-coat (tin/pyrolytic) and vacuum-deposition (silver/sputter). Both types block radiant heat, keeping summer's heat outside and winter's heat inside. And both block the sun's rays to some degree. But the similarities end there.

We recommend you look for windows with multi-layer vacuum-deposition Low-E glass for several reasons. First, silver based Low-E glass has better visual clarity. In fact, silver based Low-E has a "haze factor" of 0.14 – that's the same as plain glass. The haze factor for pyrolytic Low-E glass can be as high as 1.40. A haze increase of up to 1,000%. With silver based Low-E, you get almost the same clarity as clear 'uncoated' glass.

More important, our multi-layer Hi R+Plus soft-coat Low-E insulates a minimum of 36% better than hard-coat (see the following chart). Custom View windows are available with three Hi R+Plus systems – Hi R+Plus 4.2, Hi R+Plus 5 and Hi R+Plus 10-Maxuus.



*Figures are based on computer performed by Architectural Testing, Inc. (ATI) in accordance with the National Fenestration Rating Council (NFRC) 100-97, Procedure for Determining Fenestration U-Factors, using the currently approved Window 4.1 (NFRC Special Data Library #6) and Frame 4.0 modeling programs. The higher the R-factor, the greater the insulation value (U-Factor is the reciprocal of R-Factor).*

**Q:** Why do you use exotic gases in your insulated glass units, and are these gases safe?

**A:** We replace the air between the panes of insulated glass with high-density Argon or Krypton gas. This process provides windows with both increased energy efficiency and increased sound deadening properties. Yes, both Argon and Krypton are safe, odorless, colorless gases that occur naturally in our atmosphere – in fact, you are breathing small amounts of them right now. But, because of their density, heat and cold do not pass through Argon and Krypton gas as easily as through air. When Argon or Krypton gas is used in an insulated glass system with soft-coat Low-E glass (like Custom View Window's Hi R+Plus), it's one of the most energy efficient windows you can buy.

**Q:** Can the right glass really reduce furniture and carpet fading?

**A:** Definitely. Ultraviolet rays are one of the best-known causes of fading. Certain types of window glass can reduce the amount of UV rays that pass through the glass. For example, soft-coat Low-E glass with Argon (Hi R+Plus) blocks 64% of ultraviolet rays – a 42% reduction compared to clear window glass.

But research has shown that factors beyond ultraviolet light contribute to fading and damage. So the usual tests for UV transmission may not give you the whole picture. (Besides, UV rays aren't all bad – plants need a certain amount of UV light to survive.)

A more accurate estimate of fading protection is called the Krochmann Damage Function. This method, expressed in percentages, measures the amount of all damaging radiation (ultraviolet, infrared, visible light, and heat) transmitted through window glass. The Hi R+Plus Maxuus system transmits as little as 16% of UV rays and has a Krochmann function of 20%. Conversely, tested Pyrolytic Low-E products showed transmissions as high as 47%, with Krochmann percentages as high as 52%.



**Q:** I prefer humidity to dryness in my home.  
**Q:** Can I reduce or eliminate condensation on my windows without reducing the humidity level?

**A:** Condensation usually occurs on windows because glass surfaces have the lowest temperature of any of the interior surfaces of your home. Using glass with the highest R-factors available, such as our Hi R+Plus systems, will not only keep the inside pane warmer to the touch, but will allow you to maintain higher humidity levels in your home.

**Q:** I want windows that will help eliminate the noise from outside. Is there such a thing?



**A:** Certainly. In fact, the same features that make a window more energy efficient also helps cut down on noise transmissions from outdoors. For instance, Custom View windows with Hi R+Plus reduce sound transmission by as much as 300% compared to single pane windows. So, not only are our Hi R+Plus windows the most energy efficient, they also dramatically shut out the noise and hubbub.

## *Window Features*

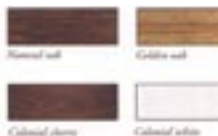
**Q:** Do I have to replace my windows with the same style windows, or can I choose a different style?

**A:** You can replace windows with any style, shape and color that suits you. Change from double-hung windows to casements, stationary windows or a combination. Give rooms a new look by replacing a group of windows with a bay or bow window. Add a garden window in the kitchen. A new window style can make you feel like you moved into a new home – use your imagination!

**Q:** I like the maintenance-free benefits of vinyl, but I really like the look of a wood interior. Can I get a woodgrain look on vinyl windows?

**A:** Woodgrain finishes are available with some vinyl windows. Custom View Windows offer five major interior woodgrain choices – Natural, Oak, Golden Oak, Colonial Cherry and Colonial White – so there’s a wood tone to complement any architectural motif.

You’ll find, however, that many manufacturers don’t offer woodgrains. The needed equipment is quite expensive. The process involves a tremendous amount of technical precision and complex calculations to custom bond the woodgrain material to each individual vinyl extrusion. We’ve enhanced this process using new finishing equipment with .002” precision. This results in sharper, cleaner woodgrain corners and a better, more beautiful window.



**Q:** Are interior woodgrain finishes durable and long lasting?

**A:** Yes. Today's better woodgrain finishes are designed for a lifetime of maintenance-free beauty. They've proven themselves over time to resist fading, chipping, peeling and blistering. So your woodgrain finish should be covered in your warranty. We use only the highest quality woodgrain laminate (7 mils thick) and we back it with a lifetime warranty.

**Q:** What features should be considered standard when I buy replacement windows?

**A:** It depends on the manufacturer. Be sure you understand what is considered standard with the type of window you want and which features are optional and may add to the cost. The manufacturer should make it easy for you. As an example, the following chart lists many of the features Custom View Windows double-hung windows provide.

## DOUBLE-HUNG WINDOWS

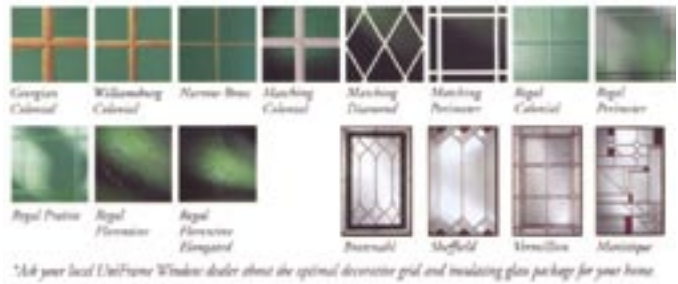
**Key: S=Standard Feature O= Option**

Feature	Benefits		Feature	Benefits	
<i>Fusion-welded construction</i>	<i>Adds strength; maintenance free</i>	S	<i>Tilt-in sashes top and bottom</i>	<i>Easier and safer cleaning</i>	S
<i>Patented R-Core® - filled frame</i>	<i>Warmer, more energy efficient</i>	S	<i>Custom-made</i>	<i>Perfect fit</i>	S
<i>Heavy-duty weatherstripping</i>	<i>Eliminates drafts, cuts heat loss</i>	S	<i>Hi R+Plus® insulated glass system</i>	<i>High R-factor for maximum energy efficiency</i>	O
<i>7/8" Insulated glass with Intercept™ warm-edge technology*</i>	<i>Maximum insulation; quieter, more energy efficient</i>	S	<i>Glass/grid options</i>	<i>Distinctively different</i>	O
<i>Silicone autoglazed sash</i>	<i>Sturdier one-piece unit; seals out air and moisture</i>	S	<i>Exterior colors -White*, Camel, Earthtone</i>	<i>Improves home's curb appeal</i>	O
<i>Heavy-duty extruded screen</i>	<i>Made to last a lifetime</i>	S	<i>Interior Choices - colors: White*, Camel, Earthtones; woodgrains: Natural Oak, GoldenOak, Colonial Cherry, Colonial White</i>	<i>Add warmth, beauty; match any décor</i>	O
<i>Extruded lift handles in top and bottom sash</i>	<i>Easy to open/close window; durable</i>	S	<i>Easy-Clean™ Glass</i>	<i>Windows you'll clean half as often and in half the time</i>	O
<i>Two cam locks on windows 25"and wider</i>	<i>Enhances security; weather-tight seal at meeting rail</i>	S	<i>Limited Lifetime-Plus Warranty</i>	<i>Protects your investment</i>	S
<i>Ventilation-limit locks</i>	<i>Adds safety and comfort</i>	S	<i>Glass Breakage Warranty</i>	<i>Total peace-of-mind</i>	S
<i>InterForce IP™</i>	<i>Maximum strength and energy efficiency</i>	S			
<i>New Generation™ uPVC</i>	<i>Strength, durability and lowest maintenance</i>	S			

**Q:** What about decorative glass? Is it worth the cost and what kinds of choices are available?

**A:** The styles of glass you choose will play an important role in the appearance – and the curb appeal – of your home. Look for a window manufacturer that offers you a comfortable range of choices. The more styles you have to choose from, the better you can protect or enhance the value of your home, whatever its architectural style.

Styles and selection will vary with each manufacturer. Custom View Windows offers a variety of decorative grid choices that add simple elegance or old-world beauty. Options include: Matching Colonial, Perimeter and Diamond; Narrow Brass, Regal Colonial, Prairie, Perimeter and Florentine V-grooved glass, and Beveled leaded glass in twelve patterns. We also offer Georgian and Williamsburg grids that match interior woodgrains and exterior solid colors.



**Q:** Are some windows easier and safer to clean than others?

**A:** Absolutely. We recommend windows that can be cleaned easily from inside the house, so you can avoid the dangers of ladders. Look for double-hung windows with tilt-in top and bottom sashes (this feature is not available with many wood windows). With sliding windows, you should be able to clean both sashes easily, rather than just one sash. Casement windows should open fully to allow easy, safer, inside-the-house cleaning.

**Q:** I've heard about a new, higher-quality window glass that cleans easily and stays cleaner longer than ordinary glass.

**A:** It's true. It's a higher quality of window glass that provides windows you'll clean half as often and in half the time. When windows do require cleaning, a garden hose and a squeegee or a soft cloth are all that's required. Easy-Clean Glass is a product of Great Lakes Window that utilizes PPG Technology.



## *Patio Doors*

**Q:** Why are patio doors so hard to roll?

**A:** This is a common problem with conventional-type rollers. Flat spots develop because all the weight of the door rests on a single point of contact. But not all patio doors have that problem.

Custom View Windows & Doors, Euro Glide operating system integrates two major innovations. The first is the handle engineers to literally lift the door panel off the sill. The second is a ball bearing roller system that enables a door weighing up to 550 lbs, to glide smoothly open and close with just a push of a finger. A mere 8 lbs of force is all it takes to operate once in motion, compared to up to twenty pounds for a standard door.

**Q:** Aren't Patio doors easy to break into?

**A:** A determined burglar will get into your home no matter what. But statistics show that if it takes longer than 60 seconds to break in, a burglar is more likely to move on. Custom View Windows & Doors Euro Glide patio doors feature a unique four-point locking mechanism which gives you several times more resistance to forced entry than patio doors with a single lock. When the panel is closed, locking lugs engaged four lock bolts strategically positioned along the door jam for maximum security. This breakthrough tech is backed by a limited lifetime warranty covering any defects in material and workmanship.

**Q:** What's the advantage to having an exterior keylock on my patio door?

**A:** Extra security and convenience. It allows you to lock and unlock your patio door from the outside, so you can use it as a primary entrance. With Custom View Windows & Doors Euro Glide patio doors, the optional keylock - in beautiful polished brass - activates the unique, three-point locking mechanism for improved security.

Exterior keylocks are not a typical option with other vinyl replacement products. However, the brass keylock system is available with all Custom View Windows & Doors Euro Glide patio door sizes and styles.



**Q:** It seems like the first thing to go wrong with a patio door is its screen. Is yours any better?

**A:** We've engineered our screens not to break, bow or warp and we guarantee it for the life of your patio door system. Most screens are 3/8" thick. Ours is more than twice as thick for added strength, and it's manufactured to eliminate weak spots that tend to loosen over time.

**Q:** How do I decide between a sliding or hinged patio door?

**A:** A hinged patio door requires a larger room. A three-foot wide hinged door requires about six square feet of open floor space to swing open. So, if you have an average-sized home where space is important, a secure sliding patio door may be the answer.

**Q:** Can I get high security in a hinged patio door?

**A:** Our hinged patio door features a multi-point locking system that secures the door at multiple points. The hinged patio door offers high security, energy efficiency and is available in a variety of colors, woodgrains and glass designs.

**Q:** Aren't patio doors, whether sliding or hinged, a major source of energy loss because of the increased glass surface area?

**A:** Yes, often times they are. However, Custom View Windows and Doors Euro Glide patio doors are available with the same superior insulated glass systems as our windows. They also feature heavy-duty weatherstripping, compression seals and energy efficient thresholds.



## Warranties

**Q:** What kind of warranty should I look for when buying windows?

**A:** The warranty on replacement windows from any reputable source should:

1. Be easy to read and understand.
2. State in writing that covers your windows for a lifetime.
3. Cover everything – frame, sash, glass and seal, hardware and screens.
4. Be transferable to the next homeowner when you sell.
5. Be supported by a manufacturer in good financial standing.

It's always wise to check on the company's financial strength. If it isn't strong, the company may not honor your warranty claim. Or worse, the company may not be around when you need to make a claim.

**Q:** What kind of warranty does Custom View Windows & Doors provide?

**A:** Custom View Windows & Doors warranties meet all the points listed. Custom View Windows & Doors has a solid financial base to back our products with the best warranty of all – a Limited Lifetime-Plus Warranty\*.

It's really a double lifetime warranty, because it's transferable to a second property owner if you sell your home. That's why we call it a "Lifetime Plus" warranty. It's our way of telling homeowners that we have absolute confidence in our products, and a commitment as a longstanding and respected leader in the industry.

As an added feature, Custom View's windows also include an unprecedented lifetime glass breakage warranty – in case you live next door to a little leaguer.

*\*See printed warranty for complete details*

This guide is provided as a service of Custom View Windows & Doors to help consumers make informed buying decisions. We welcome your questions and comments. If you need more information on windows and patio doors, call us – (520) 795-4104.

**tip**

Tip: A reputable company may have manufactured the extrusions (framing material), while the assembly and glass manufacturing was done by a smaller fabricator. Look for a large window manufacturer willing to take total responsibility for the products that carry its name.



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