

# CONSUMER RATINGS

**BEST BUYS**

REPLACEMENT  
**WINDOWS**

*7 STEPS  
TO BUYING  
NEW WINDOWS*

TOP 20  
NEW WINDOW  
BENEFITS

**WINDOW  
MPG**

**CRASH  
SAFETY  
RATINGS**

**How To  
COMPARE**

# 2014 **WINDOWS**



**2014**  **REPLACEMENT**  
**TOP PICKS** **WINDOWS**

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**Consumer Tips:**  
Look for these tips to become an  
“Educated Replacement Window Consumer”

## *Another Hole in the Wall...*

Before recorded history someone realized the hole that was the entrance to their cave was not enough. They put another hole in the wall to see outside, get sunlight, fresh air or a different way out. When that person put another hole in the wall...

***They invented the world's first window!***

The inventor of the very first window needed another hole in the wall for the very same reasons we need windows in our home or business today. We need windows for light, view, ventilation and egress.

- ✓ **Light**
- ✓ **View**
- ✓ **Ventilation**
- ✓ **Egress**



The invention of the window is as important as the discovery of fire and the invention of the wheel. The struggle to have a hole in the wall for light, view, ventilation and egress, but keep out wind, rain, cold, and intruders is the history of the window.

Controlling the wind blowing through the hole in the wall may be the way a window got its name in the first place, but we expect a modern window to do more than block out wind. We expect a window to protect us from Mother Nature and keep our family and belongings safe from the rest of Mankind while giving us those 4 important other features – light, view, ventilation and egress.

Our first windows were animal pelts hung over the hole in the wall. Discovering how to make glass was the biggest turning point in the history of the window. Observing the heat of a lightning bolt turned sand into a clear hard substance led to early glass production in about 3,500 B.C. The breakthrough process started with heating sand at very high temperatures until it became a liquid. When the liquid cooled it hardened into glass. Glass became the product of choice for windows, but was too expensive for the common man for over 5,000 years. In 1925 Pittsburgh Plate Glass began mass producing sheet glass and glass became affordable for the masses to use in American homes. By 1945 PPG introduced "Twindows" the world's first insulated glass and in 1983 introduced PPG introduced the first Low Emissivity Glass.

Today we have very high expectations of glass windows and new technology continues to improve what fills the hole in the wall. From Self-Cleaning glass to silver and titanium glass coatings, there are more glazing options than ever to consider when purchasing new windows to fill the holes in our walls.

When you finish reading this Consumer Ratings Best Buys for Replacement Windows you will be better educated and more prepared to make the best replacement window purchase for your home or business.

Please enjoy...

## *Do I Need New Windows?*

The first step in the process of shopping for new windows should be an honest evaluation of your existing windows. Answering these questions may help you decide if you really need new windows or not.

### **Are your windows broken?**

Windows don't work if they don't lock, open, stay up, tilt-in for cleaning, keep bugs out, are drafty or leak water.

- Windows that don't lock expose your valuables to theft and your loved ones to danger.
- Windows that don't open create a safety hazard because they can't be used as an exit in the case of an emergency.
- Windows with missing screens let bugs in the house and must have new screens made before resale.
- Windows that leak water must be addressed quickly because water penetration can cause structural damage that is very expensive to repair.
- Windows that allow water to penetrate into walls can cause mold and mildew that contributes to health problems such as respiratory dysfunctions and allergic reactions.

Broken windows should be repaired or replaced because the broken window impacts how much a property owner spends on heating, cooling and maintenance, but also effect resale value, safety and security.

### **Are you spending too much on heating and cooling?**

You can hire an expert for an energy audit, but your gut instinct probably already tells you if your windows are energy efficient or not.

- If you feel drafts at windows or cold radiating off of the glass during the heating season, you will reduce heating costs by replacing your windows with properly installed energy efficient windows.
- If you have to keep shades drawn during the summer months because of excessive heat build up, new windows could help reduce cooling costs.

Windows that are not energy efficient should be repaired or replaced to save heating and cooling expenses and to improve the overall comfort of your property.

### **Are your windows ugly?**

Ugly windows don't just detract from your property's appearance, they also decrease property value.

- Ugly windows can mean a lower bank appraisal when refinancing a mortgage that results in a smaller loan approval.
- Ugly windows can result in a lower sale price when you decide to sell your home.
- Ugly windows can impact how you feel about your home or business and how others perceive you or your business.

Ugly Windows should be repaired or replaced to improve property appearance and property value.

**Should you fix your windows or replace them?**

If your windows are broken, waste energy or just plain ugly you can invest money to maintain your existing windows or replace them with new windows.

- Be aware of how long you plan to stay in your home.
- Window maintenance will have to be repeated
- Constant upkeep can be costly.

Replacing windows may be a wiser investment than maintaining old ones for many consumers. When you calculate the savings from reduced maintenance costs and energy consumption during the years you own combined with the increased resale value of your home you may find replacing windows gives you a great return on your investment.

**Consumer Tip:**

**If you have a home or business with windows that do not live up to the basic expectations of a modern window, you may benefit from new windows that improve appearance, energy efficiency, maintenance costs and functionality.**



## *Top 20 Window Benefits*

Replacement windows provide a host of benefits to improve the home ownership experience. The benefits of replacing windows range from improved appearance and property value to a more comfortable home with less maintenance. Some benefits may be more important to one consumer than they are to another.

### **Getting what YOU want in a new window.**

Which new window benefits are most important to you? To find the best window product for you, it may be helpful to determine your expectations for new windows. Consumers list the following 20 benefits as the top reasons for replacing their windows.

### **Top 20 Benefits of Replacement Windows**

- IMPROVED APPEARANCE – INSIDE
- IMPROVED APPEARANCE – OUTSIDE
- LOWER HEATING COSTS
- LOWER AIR CONDITIONING COSTS
- EASY TO CLEAN OR SELF-CLEANING GLASS
- EASY TO OPEN, CLOSE AND LOCK
- BETTER YEAR ROUND COMFORT INDOORS
- INCREASED PROPERTY VALUE
- RESISTANCE TO AIR INFILTRATION
- RESISTANCE TO WATER PENETRATION
- LESS MAINTENANCE
- LESS NOISE, DUST AND ALLERGENS IN THE HOUSE
- KEEP OUT INSECTS
- SAFE TO OPERATE
- INCREASED SECURITY
- REDUCED FADING OF FURNITURE, CARPETING AND DRAPES
- REDUCED CONDENSATION, MOLD AND MILDEW
- IMPROVED VENTILATION
- ELIMINATION OF STORM WINDOWS.
- REDUCED SOLAR HEAT GAIN AND HARMFUL UV LIGHT

**Consumer Tip: Place a check mark next to the benefits that are most important to you. Keep this list handy during your buying process to make sure you get new windows that provide you with the benefits that are most important to you.**

### *Window Brands, Models & Styles*

**Window brands, models and styles are much like car brands, models and styles in that they define the purchase.**

**Brands...** We are probably all familiar with most major automobile brands from Ford to Lexus. We recognize an automobile brand is the company manufacturing the automobile we are buying. Of course, different automobile brands or manufacturers may have parts in common with other brands, such as Macpherson struts or Bose stereos, but the manufacturer of the vehicle is normally the same as the brand. Some car manufacturers, such as GM, offer a wide variety of brands from Chevrolet to Cadillac to differentiate themselves in the marketplace and the same is true for many window manufacturers.

**Models...** Iconic automobile models include the Ford "Thunderbird" and Cadillac "Eldorado". European and Asian car makers lean toward numbering model names and have become just as iconic with models such as the BMW "3-Series" and "M-5". In any case, models are a series of vehicles within a manufacturer's lineup with varying levels of performance, quality and price. Window manufacturers also have different model lines with varying levels of quality, performance and price.

**Styles...** Automobile Styles include coupes, sedans, convertibles, sport utility vehicles and mini-vans. Each style is designed with a different functionality to serve the purposes of different drivers.

*Just like the car brand, model and style of car we buy impacts our driving experience; the window brand, model and style of we buy will impact our home ownership experience...*

*Being aware of the window brands, models and styles available to improve your property should be at least as important as being aware of the automobile brands, models and style available to improve your drive.*

### Window Brands

A window "Brand" is the name of the window manufacturer. The different window brands or manufacturers can best be distinguished by the material they use to make their window frames.

The 4 materials commonly used to make window frames today are aluminum, wood, composite/fiberglass and vinyl.

- **Aluminum** – Aluminum is typically used for large panes of stationary glass such as commercial applications where the structural strength gives them an advantage, however that strength sacrifices energy efficiency as the metal frame conducts temperature and transfers cold to the heated space during the heating season. Aluminum frames do not receive the Top Pick for frame material from Consumer Ratings for typical residential applications because of the lower energy efficiency ratings they receive.
- **Wood** – The popularity of wood windows has declined severely during the 21<sup>st</sup> century because of the issues wood has when exposed to weather and their lower energy efficiency ratings. Wood windows can rot, twist, warp or separate from the glass. The exterior of most wood windows are clad with vinyl or aluminum or painted to protect the wood from exposure to weather and the deterioration that follows, but protecting wood from weather damage has been a challenge. The frames of wood sash also make it difficult to manufacture windows with the optimum insulated glass thickness for energy efficiency. Finally wood frames and sash have never had the best capability to reduce air infiltration and water penetration. Although wood framed windows can initially be aesthetically pleasing, especially on the interior, their energy and maintenance deficiencies do not allow them to receive Consumer Ratings Top Pick.
- **Composite and Fiberglass** – Windows composed of a mixture of materials such as wood pulp, glass fibers and plastic shells are relatively new to the window market. They are an interesting option and have some of the same density properties of wood, but composite and fiberglass window frames have not yet been weather tested for any length of time in the real world. We are uncertain how composite and fiberglass window frames will perform after repeated exposure to extreme temperature changes and UV light so they cannot receive Consumer Ratings recommendation.
- **Vinyl** – Vinyl window frame brands have become the product of choice for consumers today and are Consumer Ratings Top Pick for window frame brands. Vinyl frames have proven they can provide the best combination of low maintenance, high energy efficiency and aesthetic appeal for residential and light commercial properties for 25 years or longer. Strength is the biggest concern when using vinyl for window frames. Vinyl can be made in different thicknesses and different multi-chambered designs for additional strength. If the vinyl material is too thin or improperly designed a vinyl window frame can lose its shape, causing serious problems. Engineering for high Structural Strength rating is the single most important key to selecting quality vinyl window brands that will hold up after many years of use. Structural strength can be measured for comparison using standardized, independent DP Ratings.

#### **Consumer Tip**

Vinyl window frames receive the Consumer Ratings Top Pick for Replacement Window frames over metal, wood or composite and fiberglass alternatives. Design and engineering for high Structural Strength rating is the biggest key to selecting a quality vinyl frame window brand and manufacturer.

## Window Models

Each manufacturer or brand typically has a series of different models to offer the end consumer, usually defined as “Good”, “Better” and “Best” models. Some manufacturers categorize window models as “Builder Grade” for their lower quality product and “Remodeler Grade” for better models.

Consumers must be aware of which window models are available and compare standardized test data such as “Energy Star” ratings and “Design Pressure” Ratings to determine their best window value.

Well known window brands are offering lower priced models in “Big Box” building supply outlets to improve sales volume. Often a lower price also means lower quality. The consumer must be aware of the quality of the window model and not rely simply on brand name recognition.

### **Consumer Tip:**

Do NOT rely on the brand name to determine the best window value. Always compare “Energy Star” ratings and “Design Pressure” ratings of specific window models.

## Window Styles

Windows come in 6 different basic styles:

- 1) **Double-Hung** – Double-Hung windows are the style most often used in American homes and consist of two sashes that slide up and down.
- 2) **Picture** – Virtually every home in America has at least one stationary window that does not operate and these are called “Picture” style windows.
- 3) **Horizontal Slider** – Windows with 2 or more sash that slide horizontally – from side to side – are known as “Horizontal Siding” windows. Horizontal sliders are a great way to have large expanses of glass that operate, but typically are the window style with the least resistance to air infiltration and water penetration
- 4) **Casement** – Casement style windows “swing” out, like a door and give the appearance of a picture window when closed. Casement windows provide the most ventilation of any operating window and are often the window style with the highest resistance to water penetration and air infiltration.
- 5) **Awning** – Awning windows are very similar to Casement windows, but the “hinge” is at the top and the window swings out from the bottom, so the glass sash creates an “awning” when open to allow the window to be open during rainfall without damaging the interior.
- 6) **Hopper** – Hopper style windows are somewhat similar to casement and awning style windows, but the window swings in instead of out and the “Hinge” is at the bottom.

### **Consumer Tip:**

Not all windows in the same house need to be the same style. Different styles of windows can be selected for their unique ability to provide solutions for individual applications.

## Bay & Bow Windows

In addition to the 6 windows styles, windows can be combined into multiple units. Bay & Bow Windows are some popular ways to combine multiple windows for additional depth of sill and projection of the house. Here are further descriptions of Bay & Bow Windows.

**Bay Windows** – Bay Windows combine a series of windows to create an angled extension to the building and require a roof or overhang above to protect against water penetration. A typical Bay window will include a wide stationary picture window in the middle with smaller operating double-hung or casement style window on each side that are called flanking windows. The angle that the flanking windows protrude from the house wall determines the depth of the sill and the width of each of the windows of the Bay. Standard bay window angles are 30 degree, 45 degree and 90 degree “Box Bay”.

**Garden Bay Windows** - Box bay windows with a glass roof are called “Garden Bay” windows.

**Bow Windows** – Bow windows combine a series of 3 or more windows, extend beyond the house wall and require a roof or overhang to protect against water penetration. The multiple windows of a bow window are of equal width and set at an equal angle. When the series of windows combine to make a bow window the sill is a semi circular shape, similar to an archery bow. Since each of the windows in the bow window may operate as a casement or double hung style window a bow window provides the opportunity for more ventilation than a typical bay window, however picture style windows that do not open can also be used in a bow window.

### Consumer Tip

Windows are available in 6 different basic styles plus “Bay” & “Bow” windows. Learn the difference between window styles to get the look and functionality you want.

## *7 Steps to Buying New Windows*

You have evaluated your existing windows, decided to replace them, chosen the window benefits that are most important to you and know the basics about window brands, models and styles. Now it is wise to have a sensible and simple plan of action to make your purchase.

Replacement windows are a large investment that will affect you every day for as long as you own your property - and when it is time to sell. Consumer Ratings recommends taking these 7 simple steps to help make your purchase easier and more satisfying.

- 1) Visit a Local Showroom
- 2) Ask for References
- 3) Schedule an In-home Appointment
- 4) Ask for Energy Star Ratings
- 5) Ask for Design Pressure Ratings
- 6) Ask to see the Warranty
- 7) Get a Written Contract

- 1) **Visit a Local Showroom:** Before you randomly call salespeople out to your home, visit showrooms to see full sized displays of the windows available. This will not only give you a better idea of window appearance and operation it will also give you a much better idea of how professional each company is based on the quality of their showroom and the attitude and availability of the people there to help you. If a showroom is not conveniently located, doesn't have full time hours or knowledgeable, friendly people there to serve you and a good selection of windows on display they probably don't deserve your business.

**Consumer Tip:**

Getting in-home estimates from several companies without visiting showrooms may seem like an easy way to shop, but it dramatically increases the chances of having to deal with a high-pressure, unprofessional salesperson.

The consumer may actually be put at a disadvantage and feel forced to make an immediate buying decision based on seeing only a small sample window, a brochure or no actual window at all.

- 2) **Ask for References:** A well established, experienced company should be prepared to show you an impressive list of references. Quality windows and professional workmanship backed by reliable service over a long period of time generates long satisfied customer lists. No lists or short lists could be a warning sign of customer dissatisfaction.

**Consumer Tip:**

Make sure your contractor is properly licensed and insured.

Check references and get their Better Business Bureau Rating and their affiliation status with your local Chamber of Commerce or Remodeling Association.

- 3) **Schedule an In-Home Appointment:** After you have visited showrooms and selected someone you feel comfortable working with, it is time to invite them to your home. This meeting will be an important one in your replacement window buying process.
- Be prepared to devote your full attention and sufficient time to learn about your choices and their future implications.
  - The professional window replacement expert will inspect your existing windows and evaluate your needs before making window brand, model and style recommendations for the individual window openings in your home.
  - This is your opportunity to make dramatic changes in window style, functionality – even the size of the windows in your home - so don't be afraid to speak up.
  - Be wary of a salesperson that does not make a thorough inspection of your existing windows or does not evaluate the window benefits that are most important to you.
  - After the inspection and evaluation process the window professional should be able to review their installation methods, design options and prices.
- 4) **Ask for the Energy Star Ratings:** Learn how to read Energy Star Stickers – they are like the “Miles per Gallon Sticker” for your car and will tell you how much energy one window will save compared to another.
- Comparing the Energy Star ratings for different windows should be a key part of your decision making process and will tell you how well a window will insulate against heat loss, reduce solar heat gain that increases air conditioning costs and how much visible light your window will provide to cut down on the use of lighting.
  - Energy Star rating data is available for every window made.
  - If your replacement window salesman is unwilling or unable to provide Energy Star ratings numbers they do not deserve your business.
  - Do not sign a contract that does not specifically state the Energy Star Ratings for the windows to be installed on your home, so you can verify the window ratings on your contract match the label on the windows installed on your home and not a less efficient, lower priced alternative.

**Consumer Tip:**

Learn how to read the Energy Star sticker and compare window energy ratings.  
Read Consumer Ratings “MPG for Windows”.

- 5) **Ask for the Design Pressure Ratings (DP Ratings):** Design Pressure Ratings are like the Crash Safety Ratings for automobiles because they tell you how a window will perform when Mother Nature crashes into your home or intruders attempt to enter.
- DP Ratings measure a window's ability to resist air infiltration, water penetration, forced entry and overall structural strength.
  - Comparing the DP rating is a good way to tell how your window will perform when the wind blows, rain falls or an intruder strikes.

- If your replacement window salesman is unwilling or unable to provide Design Pressure ratings numbers for the windows they are offering you, they have not earned your business.
- You should delay your purchasing decision until you know DP Rating information because those ratings are a key to determining the level of satisfaction your purchase will provide

**Consumer Tip:**

Read Consumer Ratings “Crash Safety Ratings for Windows”.  
Learn how windows perform when Mother Nature crashes into your home.  
Learn how windows provide safety, security and resist break-in attempts.  
“DP Ratings” measure Weather Resistance Security and Strength of windows.

- 6) **Ask to See the Warranty:** Ask to see the manufacturer’s written warranty for the specific product you are considering and get an explanation of that warranty for a realistic understanding of what is covered.
- Beware of the vague “Lifetime Warranty”.
  - A pro-rated parts-only “Lifetime Warranty” may not cover the cost of warranty service labor and only a small percentage of the cost of parts after a very short time.
  - A misleading “Lifetime Warranty” can increase window maintenance costs and make a low priced window very expensive over time.
  - Warranty Transferability is also important and so is coverage for glass failure and accidental glass breakage.

**Consumer Tip:**

Read Consumer Ratings “How Long is a Lifetime Warranty?”  
Learn more about the Creditable Lifetime Warranty.

- 7) **Get a Written Contract:** Once you have agreed on the model, brand, style and options for your window replacement project have the exact price for that specific window and options you selected written up as a contract.
- Get a copy of your window contract to avoid conflicts or confusion about what is included at the time of installation.
  - Custom windows can take six to eight weeks from the time they are ordered until they are installed. It could be easy to forget what your original agreement was if it is not in writing.
  - A written contract that thoroughly covers the window brand, model, style, energy star ratings, DP ratings, design, options and installation methods can give you the ability to make a legal claim for damages if your agreement is not strictly adhered to by your installation company.

Following these 7 simple steps will help you select a window replacement product and installation company that gives you the best chances of getting the results you were expecting with this very important project. Educating yourself about how to compare window product offerings will allow you to make the best choice for you. “Consumer Ratings” provides additional information about warranty, energy ratings, structural strength and installation to help consumers compare windows before buying.

## *How to Compare Windows*

Windows are all the same, aren't they? Anyone who has paid to heat and cool a home or opened a window knows that all windows are not created equal, but how can a consumer compare one replacement window to another, so they have the best chance of being satisfied with their purchase? Fortunately for the consumer, it can be easy to compare windows and installation so you get the best value when replacing your windows.

The Six factors that separate a good replacement window purchase from a bad one are:

- **INSTALLATION QUALITY**
- **ENERGY RATINGS**
- **WEATHER RATINGS**
- **SECURITY AND STRENGTH RATINGS**
- **APPEARANCE OVER TIME**
- **WARRANTY & SERVICE AFTER INSTALLATION**

### **INSTALLATION QUALITY**

Quality of installation is probably the most overlooked aspect of replacing windows despite the fact that improper installation is one of the leading causes of consumer dissatisfaction with the replacement window project. Assuming all installations will be equal is a very risky assumption for the consumer to make.

#### *"Installation Masters"*

The U.S. Department of Energy promotes the benefit of high efficiency glass to reduce American fuel consumption, but has publicly stated concern over widespread improper installation techniques that greatly reduce potential fuel savings. The ultimate goal of the Department of Energy is window installations performed by AAMA certified "**INSTALLATION MASTERS**". The **Installation Masters** program promotes the education of installers and property owners about the advanced installation techniques encouraged by architects and window manufacturers.



*Consumers can see at a glance if their Window Installer is committed to superior installation... Just look for the Installation Masters™ logo.*

**AAMA** - the American Architect and Manufacturers Association - has standardized window installation quality with a program called "**Installation Masters**".

**AAMA Installation Masters Certification** makes it easier than ever for the consumer to find installation companies that have received the training and knowledge to install windows properly. The **Installation Masters** course teaches installers the high quality installation practices recommended by architects and manufacturers for energy efficient, watertight and airtight residential and light commercial window replacement projects.

#### **Consumer Tip:**

**Consumer Ratings recommends selecting a certified "INSTALLATION MASTER" for a window installation adhering to the standards of the American Architects and Manufacturer's Association.**

### Experience

There is still no substitute for experience and it's easier for a consumer to trust a specialist with years of installation experience. A skilled installer repeating the same techniques continuously over a number of years becomes very precise and consistent. A high level of skilled workmanship is virtually impossible to match on a part time basis.

#### **Consumer Tip:**

Consumer Ratings recommends Window Installation specialists with at least 10 years of experience for Best Window Installation Company

### One final note about installation...

The task of properly finishing the exterior "casing" of a window is critical to the performance and appearance of replacement windows.

The exterior casing is the trim surrounding the window exterior. To insure against water penetration, air infiltration and future maintenance, the wood casing is "wrapped" or "capped" with metal and sealed at the window and wall during the installation process. The exterior window case covering is the single most visible area where a window installing specialist will outperform a general contractor or even the most skilled carpenter.

The casing and sealant application is a specialized skill taught to others for generations. The exterior custom bent metal capping, wrapping or casing is custom fabricated on-site by the installation crew. Aluminum with a striated vinyl coating is recommended because it is pliable, strong, non-corrosive with a durable and attractive finish available in a wide variety of color choices.

A quality capping will be custom bent to follow the contours of the wood frame. When done professionally, the nails and sealants will secure and seal the exterior capping so it is virtually indistinguishable from a painted wood casing and gives your window trim a beautiful appearance for many years to come.

On the other hand, an exterior window casing can with an unprofessional capping and sealant installation will make even the best replacement window an eyesore that is drafty and allows water to penetrate around the window frame.

Some of the most glaring deficiencies to be aware of in a bad window casing, capping installation are sloppy or improper sealant application, face nails – nails that face out instead of hidden from view, "monkey faces" in the casing where a hammer head has left a round impression in the metal and gaps to the heaven that let water into the frame to rot wood and cause mold and mildew. These are all sure signs of an inferior installation and can cause you to regret your selection of window installers.

#### **Consumer Ratings Tip:**

An exterior window casing with an unprofessional capping and sealant installation will make even the best replacement window an eyesore that is drafty and allows water to penetrate around the window frame.

### ENERGY RATINGS

What is the best window for energy efficiency? It can be confusing for the consumer. Everyone says their window is the best... That is why the US Government has required standard tests that let the consumer compare.

Government regulated independent testing is now available for windows and doors. The independent tests are clearly visible on a sticker applied on each window, just like the Miles per gallon Sticker on a new car. The sticker shows the window's insulation value so you save on heat costs, the solar heat gain reduction coefficient so you save air conditioning costs and the visible light transmission so you save on lighting bills. You must take the time to become educated on the energy efficiency of your new window before you buy.

#### **Consumer Tip:**

Read Consumer Ratings "**MPG for Windows**". Learn how to read the NFRC window sticker to compare the energy efficiency of different windows.

### WEATHER RATINGS

Did you know windows have ratings similar to the "Crash Safety" ratings given to new cars?

Design Pressure ratings – DP Ratings are a series of independent and standardized tests that determine how well a window will perform in bad weather and measures window resistance to air infiltration and water penetration.

- **Resistance to Air Infiltration**
- **Resistance to Water Penetration**

If you want to buy windows that are less drafty and more waterproof you need to be aware of the DP rating and select windows with a higher Design Pressure rating.

#### **Consumer Tip:**

Read Consumer Ratings "**Crash Safety for Windows**". Learn how a window will resist water penetration and air infiltration in bad weather.

### SECURITY AND STRENGTH RATINGS

Security and Strength Ratings are also measured as part of the DP Ratings series of tests.

Design Pressure ratings – DP Ratings are a series of independent and standardized tests that determine how well a window resist forced entry and the overall strength of a window

- **Resistance to Forced Entry**
- **Overall Structural Strength**

If you want to buy windows to defend your family against home invasion and burglary you need to be aware of the DP Rating and select windows with a higher design pressure rating for resistance to forced entry.

If you want to buy windows to protect your property from damage caused by flying debris or building destabilization during a heavy wind event, be aware of the DP

Rating and select windows with a higher design pressure rating for Overall Structural Strength.

**Consumer Tip:**

Learn how well a window will defend your safety when an intruder tries to break-in. Read Consumer Ratings “Crash Safety for Windows”.

**APPEARANCE OVER TIME**

Beauty is in the eye of the beholder and so appearance is a matter of personal taste however, long term and timeless beauty is more measurable. How beautiful will your purchase be in the future? Will your windows hold up to the test of time and still look great after Mother Nature has her way with your windows?

The length of time a window remains beautiful depends on the quality of the window, installation and conditions the window is subjected to. A poorly constructed or improperly installed window will be ugly and ineffective from the start and can be totally ineffective and deformed in less than five years, while a quality window properly installed can last twenty five years and longer.

Beauty is not only skin deep. Windows that remain beautiful have to be manufactured with the strength and quality to withstand damaging UV rays from the sun, resist the expansion and contraction of the frames where they are installed and not become dirty, pitted or damaged by atmospheric debris and weather changes.

Ask for references of past installations to see windows that have been exposed to weather for ten or fifteen years to be assured your windows will remain beautiful over time. After you have inspected windows that have been in service for some years you can buy with confidence knowing your windows will age well and remain beautiful as they mature.

After you have inspected mature windows for ageless beauty, you can customize your windows to meet your personal tastes with a wide variety of decorative options including:

- Decorator Colors
- Divided Lites
- Decorative Glass
- Hardware Options
- Exterior Trim Options

**Consumer Tip:**

Ask your window installer to see 10 year old examples of the window product you are considering so you can see how it will hold up to real world conditions over time.

**WARRANTY & SERVICE**

Many window makers and their dealers/distributors brag about a “Lifetime Limited Warranty”, but what are the limitations and whose lifetime are they talking about anyway?

***Simply put, a credible lifetime warranty means you will not pay for window repairs for as long as you own your home... If you have to pay the manufacturer or installer to repair your new windows in the future and you did not abuse your windows, you did not receive a credible Lifetime Limited Warranty...***

Lifetime Warranties can be very misleading and confusing. Consumers must be aware of terms such as ‘Pro-rated’, ‘Parts only’, ‘Transferability’ ‘Accidental Glass Breakage’ and ‘Glass Failure’. Understanding these terms can save aggravation and remorse in the years to come.

- Read and understand your warranty before you sign a contract for new windows.
- Ask questions about how a warranty claim is done and who performs the warranty work.
- Ask for local references of homeowners who have experienced warranty repairs.
- Any company who can not or will not provide local references of consumers who have received service after the sale does NOT deserve your business.
- To get an idea of how you will be treated on a warranty claim, call the manufacturer before you buy and see how they treat your concerns. If they don’t treat you well before you buy their product, how do you think they will treat you after you buy if you have a problem?

**Consumer Ratings Tip:**

A credible Lifetime Limited Warranty will cover your windows for as long as you own your home, will be non-prorated and will include labor costs, accidental glass breakage, glass failure and transferability.

Read Consumer Ratings “What is a Lifetime Warranty”.

Learn how to avoid the expense and aggravation of a worthless warranty.



*“Miles per Gallon” for Windows...*

Did you know windows are required to have stickers similar to the “Miles per Gallon” stickers on new cars?

**An Example of the NFRC Label You Should Look for and the Numbers You May See**

<p><b>U-factor</b> U-factor ratings generally fall between 0.20 and 1.20. The lower the U-factor, the better a product is at keeping heat in. U-factor is particularly important during the winter heating season. This label displays U-factor in U.S. units. Labels on products sold in markets outside the United States may display U-factor in metric units.</p>	 <p><b>World's Best Window Co.</b> Series "2000" Casement Vinyl Clad Wood Frame Double Glazing • Argon Fill • Low E ABC-X-1-00001-00001</p>	<p><b>Solar Heat Gain Coefficient (SHGC)</b> is expressed as a number between 0 and 1. The lower the SHGC, the better a product is at blocking unwanted heat gain. Blocking solar heat gain is particularly important during the summer cooling season.</p>
<b>ENERGY PERFORMANCE RATINGS</b>		
U-Factor (U.S. / I-P) <b>0.35</b>	Solar Heat Gain Coefficient <b>0.32</b>	
<b>ADDITIONAL PERFORMANCE RATINGS</b>		
Visible Transmittance <b>0.51</b>	Air Leakage (U.S. / I-P) <b>0.2</b>	<p><b>Air Leakage (AL)</b> rates typically fall in a range between 0.1 and 0.3. The lower the AL, the better a product is at keeping air out. AL is an optional rating, and manufacturers may choose not to include it on their labels. This label displays AL in U.S. units. Labels on products sold in markets outside the United States may display AL in metric units.</p>
<small>Manufacturer stipulates that these ratings conform to applicable NFRC procedures for determining whole product performance. NFRC ratings are determined for a fixed set of environmental conditions and a specific product size. NFRC does not recommend any product and does not warrant the suitability of any product for any specific use. Consult manufacturer's literature for other product performance information. www.nfrc.org</small>		

Since the mid-seventies the U.S. Environmental Protection Agency has required fuel economy labels to be affixed to the side window or windshield of every new car sold in the United States to help consumers choose more fuel efficient vehicles that save money on fuel. MPG stickers cannot be removed by the car dealer and can only be removed by the consumer.



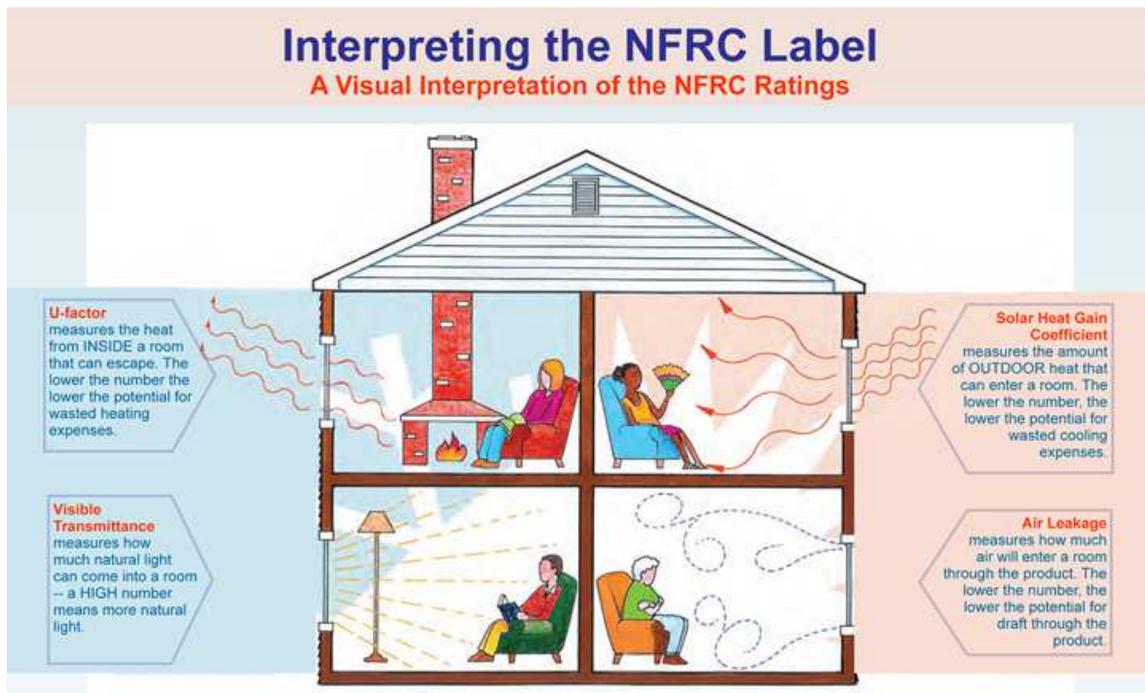
The U.S. Environmental Protection Agency through its Energy Star program also requires NFRC certified windows to be clearly labeled with fuel efficiency data. Like the MPG sticker on cars, the NFRC sticker can only be removed by the consumer to insure the window installed has exactly the same energy efficiency ratings as the window they were sold and contracted to be installed - not a less energy-efficient, less expensive, inferior product.

The NFRC label shows homeowners the real energy efficiency of the window they choose to buy. Now window buyers can compare the energy efficiency of the different windows they are considering to buy, instead of just relying on a salesman's claims.

## Reading the “NFRC” Sticker for Energy Efficiency

The information on NFRC window stickers is as important as the mile per gallon sticker on an automobile. These labels tell us important window properties such as insulation value, solar heat gain and visible light transmission.

Although these test ratings can be confusing, I recommend you take the time to learn about the energy efficiency of your new window before you buy, or you could be disappointed in how comfortable your home is and how much you are still spending on heating and cooling costs.



***“Crash Safety Ratings” for Windows –***

Crash Safety ratings for automobiles compare the likelihood of injury in the event of a car crash so consumers can make educated decisions about safety during their new car purchasing decision. Individuals with concern for their own personal safety and the safety of their passengers take Crash Test ratings very seriously.

The DP rating (Design Pressure Rating) of a window is as important as the Crash Safety ratings on an automobile and tests how a window will react when Mother Nature crashes into the window or when an intruder attempts to enter...

DP ratings for windows compare the likelihood of damage to property in bad weather events and defense from break-in attempts, so consumers can make educated decisions about window safety and security performance during their new window purchasing decision. Individuals with concern for their safety and the security of their property take DP Test ratings very seriously because they measure the following attributes of a window:

- ✓ **RESISTANCE TO AIR INFILTRATION**
- ✓ **RESISTANCE TO WATER PENETRATION**
- ✓ **OVERALL STRUCTURAL STRENGTH**
- ✓ **RESISTANCE TO FORCED ENTRY**

The style of window dramatically impacts its DP rating and each style of window in a manufacturer's model line gets its own rating, just like automobile Crash Safety Ratings are different for a convertible style of a car than it is for a hard top style of the same model.

In the case of windows, as a rule of thumb, the DP rating of a Picture style window will have a higher DP rating than an operating window. Here is a list of basic window styles, the abbreviations used for DP ratings and the ability of each to resist air infiltration and water penetration, ranked from most effective to least effective.

***Consumer Ratings Recommendations for DP Rating by Window Style and Quality***

<b>Window Style</b>	<b>Good</b>	<b>Better</b>	<b>Best</b>
<b>DH</b> – Double-Hung	<b>40</b>	<b>50</b>	<b>55</b>
<b>PW</b> – Picture Window	<b>60</b>	<b>65</b>	<b>75</b>
<b>CS</b> – Casement Window	<b>55</b>	<b>60</b>	<b>70</b>
<b>AW</b> – Awning Window	<b>40</b>	<b>50</b>	<b>55</b>
<b>HS</b> - Horizontal Slider	<b>20</b>	<b>25</b>	<b>30</b>

**Consumer Tip:**

Different windows **styles** have different DP Ratings ...

**Consumer Ratings Recommends a DP-55 for Best Double-Hung Windows.**

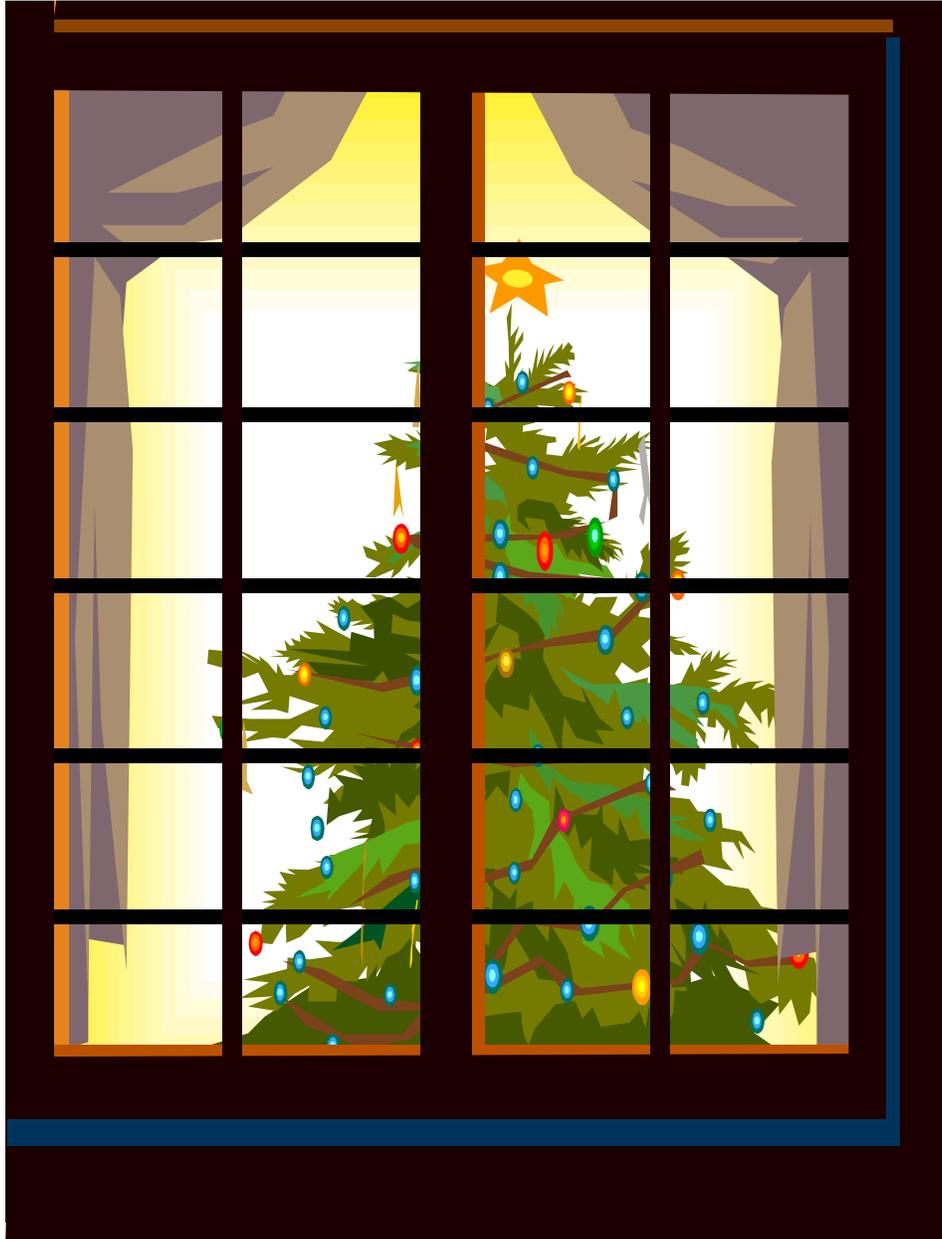
Windows and doors are the most vulnerable spots in our house for water damage and criminal home invasion. Windows with a high DP Rating protect against:

- Cold air sneaking into the house
- Warm air escaping outside the house
- Water stains on interior walls
- Windblown debris damaging exteriors
- Burglars forcibly entering homes and businesses

Know the DP ratings of your new window before you buy, or be prepared to be disappointed in how dry and secure your home is after your new windows are already installed and exposed to real world conditions.

Choose windows with the highest DP Test ratings to get the best of these important benefits:

- **PROTECT YOUR PROPERTY FROM RAIN DAMAGE CAUSED BY WATER PENETRATION**
- **DECREASE DISCOMFORT AND HEAT LOSS CAUSED BY AIR INFILTRATION.**
- **DEFEND AGAINST DAMAGE FROM WIND-BLOWN DEBRIS IN HEAVY WINDSTORMS**
- **PROVIDE SECURITY FROM TRESPASSERS' ATTEMPTING TO ENTER THROUGH A WINDOW.**



### HOW LONG IS A LIFETIME WARRANTY?

What is covered?

Who Provides Warranty Service and How?

Many window makers and their dealers/distributors brag about a “Lifetime Limited Warranty”, but what are the limitations and whose lifetime are they talking about anyway?

- ✓ *A credible limited lifetime warranty means you will not pay for window repairs for as long as you own your home...*
- ✓ *If you have to pay for window repairs in the future and have not deliberately abused your windows, you did not receive a credible Lifetime Limited Warranty!*

#### **Consumer Tip:**

**Beware of low cost windows with lifetime warranties.**

**A warranty is never a substitute for quality.**

**Low cost window warranties are often very carefully worded to protect the manufacturer at the expense of the consumer.**

Lifetime Warranties can be very misleading and confusing. Consumers must be aware of terms such as ‘Pro-rated’, “Parts only”, “Transferability” “Accidental Glass Breakage” and “Glass Failure”. Understanding these terms can save aggravation and remorse in the years to come.

Here are explanations of the meanings of these terms and descriptions of how they can impact your replacement window experience in the future.

**Parts Warranty** – A parts warranty, as the name implies, only covers parts. The service labor is never included or only included for a very limited time after purchase – as little as 30 days or as long as 12 months. Oftentimes a parts warranty requires the homeowner to remove the defective part and ship it to a factory for repair. Even the shipping costs are rarely covered. This is an unreasonable process for a window repair and will typically result in added expense and frustration.

To add to the confusion of a parts warranty, different parts are often covered for different time periods. Hardware may have a one year warranty, glass a 10-year “Pro-Rated” warranty and frames that lose shape (bow, sag, separate) aren’t covered at all.

**Pro-Rated** – “Pro-Rating” reduces the percentage of warranty coverage each year of ownership and the consumer pays more while the manufacturer pays less. All too often consumers find out too late that their Lifetime Limited Warranty is actually prorated and may require the consumer to pay 100% of labor costs and over 50% of the cost of parts on warranty repairs after as little as 3 years.

**Transferability** – Transferability simply refers to the consumer’s ability to transfer the warranty to a future owner when they sell their home. The ability to transfer a warranty

can be very valuable to consumers when they list their home for sale. The transfer of a warranty gives a potential buyer the comfort of knowing the windows will not cause them additional unforeseen expense for some time after they buy. A transferable window warranty can drastically increase property resale value.

**Accidental Glass Breakage** – Some warranties cover glass breakage and some don't. Glass can break from a stone kicked up by a lawnmower or a baseball, but sometimes it is due to a manufacturer defect such as improper filling of inert gas like Krypton or Argon at the time a window is made. Accidental glass breakage that covers parts and labor can make a bad day at your home all better. In the case of a large picture window or a difficult to access transom window, accidental glass breakage coverage can save over \$1,000 for a single incident.

**Glass Failure** – Glass failure refers to the milky film in-between two panes of an insulated glass unit that can't be removed. Glass failure is caused by condensation when the spacer seal fails; humid air enters the insulated glass unit and then condensates into water that leaves a stain ingrained in the glass surface in-between two panes. Proration or non-coverage of glass failure is perhaps the biggest long-term expense, inconvenience and detraction from appearance of a window from both inside and out. Coverage of glass failure can save or cost a consumer thousands of dollars over the course of ten years.

- Read and understand your warranty before you sign a contract for new windows.
- Ask questions about how a warranty claim is done and who performs the warranty work.
- Ask for local references of homeowners who have experienced warranty repairs.

**Consumer Tip:**

***Consumer Ratings only Recommends Window Brands and Manufacturers with a "Credible Lifetime Limited Warranty"***

**The Credible Lifetime Limited Warranty:**

- ✓ *Coverage for the complete window for as long as you own your home*
- ✓ *Is non-prorated*
- ✓ *Includes labor costs for warranted repairs*
- ✓ *Includes accidental glass breakage replacement coverage*
- ✓ *Includes glass failure replacement coverage*
- ✓ *Is transferable to the second owner for at least 10 years*



## 2014 TOP PICK – Window Brand

BF Rich has been selected by Consumer Ratings as the 2014 TOP PICK and Best Buy for Replacement Windows.

BF Rich has been selected Consumer Ratings Best Buy for Replacement Windows because they meet or exceed the standards of our ratings...

- Manufacturer of Windows & Doors since 1958
- NFRC Product Testing (Nation Fenestration Ratings Council)
- AAMA Certification for Performance Grade & Rating
- Creditable Lifetime Warranty for all product offerings
- Good, Better and Best Model Lines for affordability and excellence
- Dealer Selection Process
- Dealer Education
- Green Manufacturer Award from Door Window Market Magazine
- Pinnacle Achievement Award Winner

Congratulations to BF Rich for achieving the highest distinction of “BEST BUY” for Replacement Windows.

The following pages will provide additional information about the Best Buy Models available from BF Rich Doors and Windows.

**2014 TOP PICK Window Models**

BF Rich offers a full line of window models with windows that meet the standards of Consumer Ratings recommendations for “Good”, “Better” and “Best” quality.

<b>Window recommendations:</b>	<b>GOOD</b>	<b>BETTER</b>	<b>BEST</b>
Brand	BF Rich	BF Rich	BF Rich
Model	Horizon	Vintage	Cabernet
Options Package	GreenShield	GreenShield	R-5 GreenShield
Style	Double Hung	Double Hung	Double Hung
Frame material	Vinyl	Vinyl	Vinyl
<b>Design Pressure Ratings</b>	45	50	55
<b>Green Features</b>			
SunClean Self Cleaning Glass	✓	✓	✓
Antimicrobial Weatherstripping	✓	✓	✓
RichView Insect Screening	✓	✓	✓
Foam Filled Sash Frames	✓	✓	✓
Foam Filled Master Frames	✓	✓	✓
<b>Credible Lifetime Warranty</b>	YES	YES	YES
Non - Prorated	✓	✓	✓
Transferable	✓	✓	✓
Includes Labor	✓	✓	✓
Accidental Glass Breakage	✓	✓	✓
Includes Glass Failure	✓	✓	✓

2014 REPLACEMENT  
TOP PICKS WINDOWS

BEST BUYS CONSUMER RATINGS

2014 BEST BUYS REPLACEMENT  
TOP PICKS WINDOWS



## 2014 TOP PICK

Window Installation Company

Chester County, PA

*Milanese Remodeling INC has been selected the Consumer Ratings “2014 Top Pick” for Window Installation Company in Chester County, PA. Milanese Remodeling meets or exceeds all of the Consumer Ratings performance standards required to be recommended as the Best Buy for Replacement Window Installation in Chester County, PA...*

**Experience and Installation Masters:** *Consumer Ratings only recommends Window Installation Companies with at least 10 years of business experience in the specialized field of replacing windows with AAMA Certified Installation Masters.*

Milanese Remodeling far surpasses the Consumer Ratings 10 year minimum experience requirement with over 50 years of business in the specialized field of experience replacing windows. Since 1957, Milanese Remodeling has served the replacement window needs of property owners in Chester County, PA. Milanese Remodeling INC employees are certified Installation Masters by AAMA - the American Architect and Manufacturers Association.

**License and Insurance:** *Consumer Ratings only recommends Window Installation Companies that are properly licensed and fully insured and qualified companies must provide proof of insurance to protect their workers in the event of injury on the job and at least a 2 million dollar general liability insurance policy to protect consumers’ property.*

Milanese Remodeling is properly licensed in the Commonwealth of Pennsylvania and fully insured, with a 4 million dollar general liability insurance coverage that exceeds the minimum recommendation of Consumer Ratings standards as well as workers compensation insurance to protect workers in the case of injury.

**Showroom and Sales Staff:** *Consumer Ratings only recommends Window Installation Companies with a showroom for their geographic area, normal business hours, knowledgeable staff and full size window displays.*

The Milanese Remodeling Showroom is centrally located in Chester County, PA and offers consumers the opportunity to see and operate full sized displays of their window offerings. The Milanese Remodeling Showroom is open Monday through Saturday and fully staffed during their normal business hours of operation.

**References:** *Consumer Ratings only recommends Window Installation Companies with a verifiable list of 100 satisfied customer references or more.*

Milanese Remodeling far exceeds Consumer Ratings minimum number of satisfied customer references with over 2,500 satisfied customer references from replacement window clients who have provided their names, addresses and contact information to be used as a reference to others.

**Contact Information**

**2014 REPLACEMENT  
TOP PICKS WINDOWS**

**BEST BUYS CONSUMER RATINGS**

Milanese Remodeling INC  
 50 Broad Street  
 Coatesville, PA 19320  
 Email – [Milanese@MilaneseRemodeling.com](mailto:Milanese@MilaneseRemodeling.com)  
 Phone 610-384-5820  
 Website – [www.MilaneseRemodeling.com](http://www.MilaneseRemodeling.com)

Consumer Ratings Top Pick: Milanese Remodeling, INC  
 Window Installation, Chester County, PA

Licensed	✓	PA Contractor License #12670
Fully Insured	✓	Workers Compensation PLUS \$4,000,000 General Liability Insurance
Installation Master AAMA Certified	✓	Milanese was one of the first to receive AAMA Installation Master Certification
Better Business Bureau	✓	A Rating
<b>10+</b> Years in Business	✓	<b>Over 55 Years in Business</b>
<b>100+</b> Satisfied References	✓	<b>Over 2,500 Verified References</b>
Showroom	✓	50 Broad Street, Caln, PA 19320
Normal Business Hours	✓	9-5 Monday – Friday 9-12 Saturday
Knowledgeable Staff	✓	Certified Installation Master
Friendly Customer Service	✓	Family Owned and Operated
Service After the Sale	✓	100% Warranty Service Resolution Rate
Phone	✓	610-385-5820
Email	✓	<a href="mailto:Milanese@MilaneseRemodeling.com">Milanese@MilaneseRemodeling.com</a>
Website	✓	<a href="http://www.MilaneseRemodeling.com">www.MilaneseRemodeling.com</a>



**2014 TOP PICKS BEST BUYS REPLACEMENT WINDOWS**

## DARE TO COMPARE Window Models

Consumer Ratings dares you to compare our top pick for window brands, models and installer.

It is never a bad idea to get a second opinion. Now that you have the knowledge of what to look for in Energy Efficiency, Safety and Weather Ratings, feel free to compare. Fill out this chart with alternative Brands, Models, Styles and Options Packages.

***If you find a better choice we want to know!***

Comparison Shopping	A	B	C
Brand			
Model			
Options Package			
Style			
Frame material			
<b>Energy Star NFRC Ratings</b>			
U-Factor			
Solar Heat Gain Coefficient			
Visible Light Transmission			
Air Leakage			
<b>Design Pressure Ratings</b>			
<b>Green Features</b>			
SunClean Self Cleaning Glass			
Antimicrobial Weatherstripping			
RichView Insect Screening			
Foam Filled Sash Frames			
Foam Filled Master Frames			
<b>Creditable Lifetime Warranty</b>			
Non - Prorated			
Transferable			
Includes Labor			
Accidental Glass Breakage			
Includes Glass Failure			

## DARE TO COMPARE Window Installers

Consumer Ratings dares you to compare any competitor against our top pick for window installation in Chester County, PA.

It is never a bad idea to get a second opinion.

Now that you have the knowledge of what to look for in a Window Installation Company, feel free to compare.

Fill out this chart with alternative Installation Company's traits and attributes to find the best window installation company in Chester County, PA.

***If you find a better choice we want to know!***

Licensed		
Fully Insured		
Installation Master AAMA Certified		
Better Business Bureau		
<b>10+</b> Years in Business		
<b>100+</b> Satisfied References		
Showroom		
Normal Business Hours		
Knowledgeable Staff		
Friendly Customer Service		
Phone		
Email		
Website		

## Glossary of Energy Efficiency Terms

**R-Value** – The higher the number the better – **Insulation Value** (Each point of R-Value is equivalent to 1” of solid wood)

**U-Factor** – The lower the number the better – **Transfer of Temperature** – The inverse of R-Value. The rate of heat loss is indicated in terms of the U-factor (U-value) of a window assembly. The lower the U-factor value of a window, the better it’s insulating properties.

**SHGC** – The lower the number the better – **Solar Heat Gain Coefficient** - The lower a window's solar heat gain coefficient, the less solar heat it transmits and the less air conditioning you will need to keep your house cool.

**VT – Visible Light Transmission**

**CRF** – The higher the number the better – **Condensation Reduction Factor** –measures the amount of humidity required to create condensation on the interior of a window pane.

### **What is the difference between U-factor and R-value?**

While the U-factor is used to express the insulation value of windows, R-value is used for insulation in most other parts of the building envelope such as walls, floors and attics. To compare R-value and U-factor, divide 1 by the U-factor number, (1 divided by U-Factor equals R-Value) E.g.: a 0.25 U-factor equals a  $1/.25 = 4$  R-value.

### **What is the Center of Glass R-Value?**

The Sticker on the new window installed on your home will represent the ENTIRE WINDOW’S U-Factor. Some window dealers use a “center of glass” U-factor for their window. This is NOT the measurement used by the US Department of Energy and use of a term such as “Center of Glass” R- value misrepresents the window’s ability to insulate. Please ask a reputable window dealer for the actual NFRC Energy Star U-Factor to make a true comparison.

How can you start...

Saving money and Saving the Environment?

**Choose B.F. Rich Cabernet R-5 Windows**

How can you get the best...

Window installation in Chester County, PA?

**Choose Milanese Remodeling**