Take Control & Save®

A Cooperative Effort for Energy Efficiency

www.TakeControlAndSave.coop

Shopping for efficient windows

Can new windows save me money?

Sure, you have seen the advertisements. "Replace your windows and save on your energy bill!" Is this true? Yes. Are there more effective ways to save energy? Definitely. Other efforts will save more money, many that will even cost less. And you can find ways to make your existing windows more energy-efficient. Since replacing windows is an expensive project, energy efficiency should not be your only reason to purchase new ones.

Did you know?

You can improve the efficiency of existing windows by caulking and weatherstripping, adding storm windows and using window treatments or coverings.

When new windows are necessary

An energy audit can help determine if you truly need new windows. If you do, look for the ENERGY STAR® label. When windows are properly selected and installed, they can help minimize your heating, cooling and lighting costs. Proper selection depends on window style, frame, glass type and energy performance ratings.

Window frame material

Some of the most common and efficient frame types are wood, vinyl and fiberglass. ***Wood frames*** insulate well, but expand and contract with weather conditions. They also require regular maintenance for appearance and energy efficiency.

Vinyl frames are energy-efficient and virtually maintenance-free. They do not require painting and have good moisture resistance. The hollow cavities of vinyl frames can be filled with insulation, which makes them superior in efficiency to standard vinyl and wood frames.

Fiberglass frames are extremely strong and have air cavities that can be filled with insulation, giving them superior efficiency compared to wood or uninsulated vinyl. They can be painted any color to match interior or exterior house colors. Fiberglass frames also expand and contract with temperature changes.

Window styles

Some windows have lower air leakage rates because of operating type. Here are six main styles:

- ***Awning:*** Hinged at the top and opens outward. Since they close by pressing against the frame, they generally have lower air leakage than sliding windows.
- ***Casement:*** Hinged at the sides. Like awning windows, they generally have lower air leakage rates than sliding windows.
- ***Fixed:*** Panes don't open. When installed properly they're airtight.
- ***Hopper:*** Hinged at the bottom and open inward. Like awning and casement, they generally have lower air leakage rates.
- ***Single and double-hung:*** Slides vertically to open and close. They generally have higher air leakage rates than hinged windows.
- ***Single and double-sliding:*** Slides horizontally to open and close. Like single- and double-hung windows, they generally have higher air leakage rates than hinged windows.

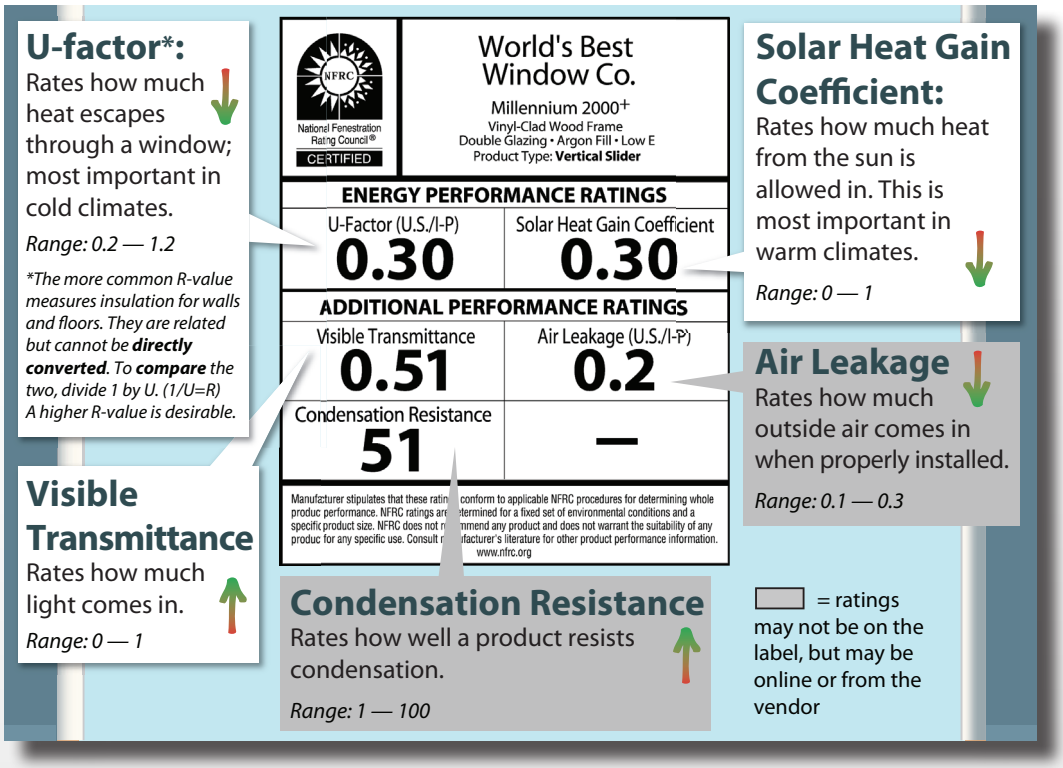
Improved glass for improved efficiency

Some elements of glass that improve efficiency include gas fills, insulated window glazing and low-emissivity coatings. ***Gas fills*** improve efficiency by filling the space between the panes with inert gas, which has a higher resistance to heat flow than air does. ***Insulated window glazing*** refers to double- or triple-paned glass. To insulate the window, the glass panes are spaced apart and sealed, leaving an insulating air space. ***Low-emissivity (low-e) coatings*** control heat transfer through windows with insulated glazing. A low-e coating is a thin, virtually invisible metal layer on the surface of one or more of the panes of glass. All three of these glass types lower a window's u-factor, which is the rate of heat loss in a window.

An energy-rating label to help you shop

Always look for the National Fenestration Rating Council's (NFRC) label (top left of this label) when comparing windows. The NFRC label provides the only reliable way to determine window energy properties and compare products. Here are descriptions of what the numbers mean and the range you will see on the labels.

Go to efficientwindows.org to find out more about these numbers and what numbers your windows should have; which will vary by climate, window location and more.



Installation

Proper installation is critical for optimal window performance, to ensure an airtight fit and avoid water leakage. Always follow manufacturers installation guidelines and use trained professionals for window installation. Be sure your windows are properly air-sealed during installation. To air seal the window, caulk the frame and weatherstrip the operable components.

To find out more about proper air-sealing and many other elements of efficient windows, contact your local electric cooperative, and visit ***efficientwindows.org*** and ***TakeControlAndSave.coop***.

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