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## Windows – Energy Efficient Options

It is a fact - heating and cooling losses are higher with older windows than with walls. This is a major consideration when you are purchasing your next window(s), especially when energy costs are on the rise. Windows manufactured which display the “Energy Star” label are promoting energy cost savings of between 9% and 18%.

Energy Star in Canada is a voluntary arrangement between National Resources Canada’s office of Energy Efficiency and organizations that build, manufacture, sell or promote products, or new homes that meet the “Energy Star” levels of energy performance.

The Energy Star label found on the window, indicates the product meets a premium level of energy efficiency, making it easy for consumers to choose the most energy efficient products sold in the Canadian marketplace.

Today’s windows with the “Energy Star” label reflect the ratings of several performance features. These parameters are broken down into the following key categories:

- **Argon Gas** - In order to maximize the thermal effectiveness of a window, gas is pumped between the panes of glass to reduce heat loss, and increase the thermal value of the window. Krypton and argon are two types of gases used. Argon is the most commonly used as it is more economical.
- **(Low-E) Glass** – This is a special process of having the glass coated with a transparent material fused on to its surface. This coating acts as a thermal mirror. In reality, the window keeps the heat being emitted from objects in the room, in the room, and ultimately reduces heat loss.
- **Zones** - Because our climate varies widely across our country, there are four climate zones in Canada. These were established based on an average annual temperature. Zone A is for the mildest regions in Canada and Zone D the coldest. Ontario homes located in areas South of North Bay are rated for “Zone B”.
- **Solar Heat Gain** – This is the percentage of heat gained from both direct sunlight and absorbed heat. When windows are rated, the smaller the number, the greater the window’s ability is to reduce solar heat gain. This results in cooler rooms in the summer.
- **U Factor** : This is a window’s way of measuring R-values. Since the U factor is the reciprocal of the R-value thermal resistance, look for a window with a U-factor rating with a low number. This is preferred.

Other benefits of energy star windows include: they keep outside noises outside; there is less colour fading of your furniture; and there will be fewer condensation problems associated with older windows. Since the energy efficiency of the window has increased, this will permit the use of larger windows with less heat loss.

Provided Courtesy of

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