

# GREEN FACTS:

M.O.E.R GREEN TEAM



## Proper Window Installation

Home Weatherization - Green Equality - Green Jobs  
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“Making Our Environment Right”

When selecting windows for energy efficiency it's important to first consider their energy performance ratings in relation to your climate and your home design. Window energy efficiency is dependent upon all of its components such as:

### The Type of Window Frames

A window frame can conduct heat, contributing to a window's overall energy efficiency, particularly its U-factor. There are advantages and disadvantages to all types of frame materials. Vinyl, wood, fiberglass, and some composite frame materials provide greater thermal resistance than metal.

### Window Gas Fills

To improve the thermal performance of windows with insulated glazing, some manufacturers fill the space between the glass panes with inert gases—ones that do not react readily with other substances. Because these gases have a higher resistance to heat flow than air, they (rather than air) are sealed between the window panes to decrease a window's U-factor.

The most common types of gas used by window manufacturers include argon and krypton. Argon is inexpensive, nontoxic, nonreactive, clear, and odorless. Krypton is more expensive but has a better thermal performance.

### Insulated Window Glazing or Glass

Insulated window glazing refers to windows with two or more panes of glass. They are also called double-glazed, triple-glazed and sometimes more generally storm windows. To insulate the window the glass panes are spaced apart and hermetically sealed to form a single-glazed unit with an air space between each pane of glass. The glass layers and the air spaces resist heat flow. As a result, insulated window glazing primarily lowers the U-factor, but it also lowers the solar heat gain coefficient. Some window manufacturers use spacers, which separate two panes of glass that conduct heat less readily than others. These spacers can further lower a window's U-factor.

### Low-Emissivity Window Glazing or Glass

Low-emissivity (Low-E) coatings on glazing or glass controls heat transfer through windows with insulated glazing. Windows manufactured with Low-E coatings typically cost about 10%-15% more than regular windows, but they reduce energy loss by as much as 30%-50.

Storm Windows offer an option for older windows that you want to preserve and although they don't reduce heat transmission significantly they can restrict air flow thereby saving energy.

