



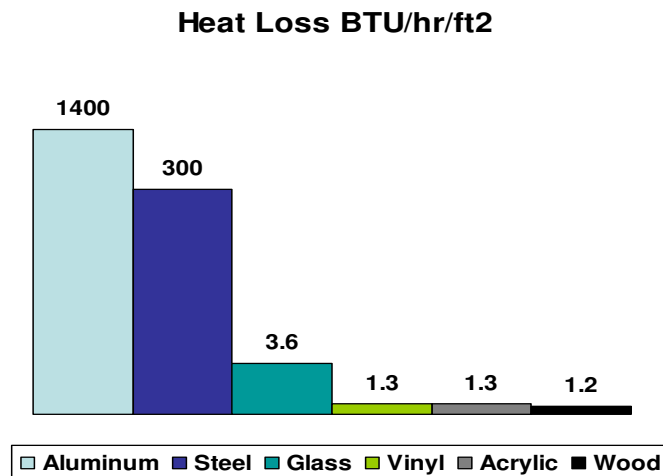
Acrylic Window Innovations

PO Box 6305, Saint John, NB, E2L 4R7
(506)635-4991 www.innergwindows.com

Technical Insulating Performance of the InnerG Window

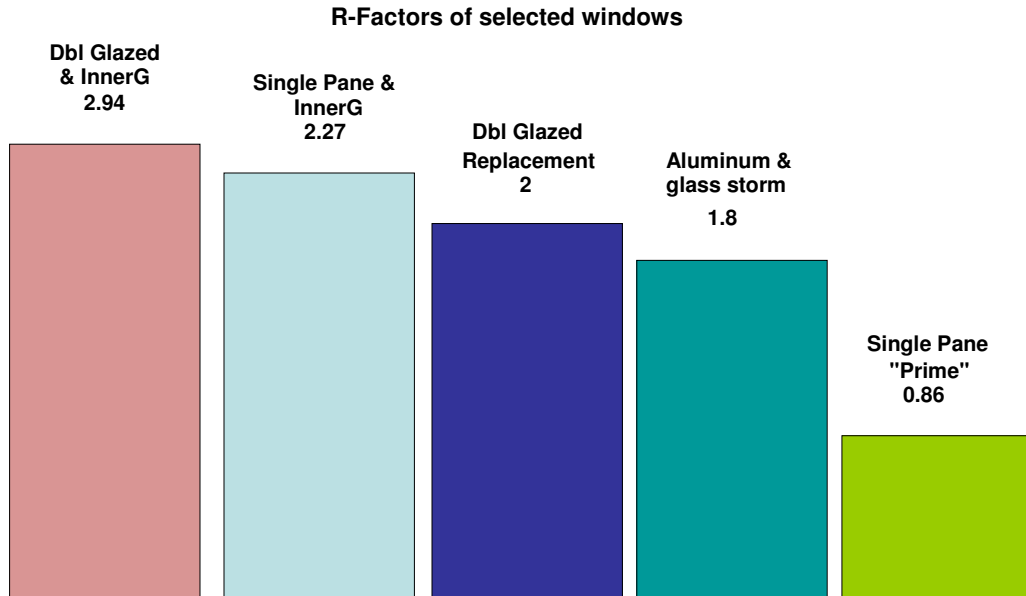
The insulating performance of a window has two main components, the physical insulating performance of the window measured as U-value or R-value, and the window's susceptibility to air infiltration.

First the R-Value: double glazed windows have higher R-values than single glazed windows. Also, windows made from wood and vinyl (all other things being equal) have better R-values than windows made from aluminum or steel due to the relatively high heat conductance of metals. Here's a quick chart that gives you a feel for the relative heat loss of various materials:

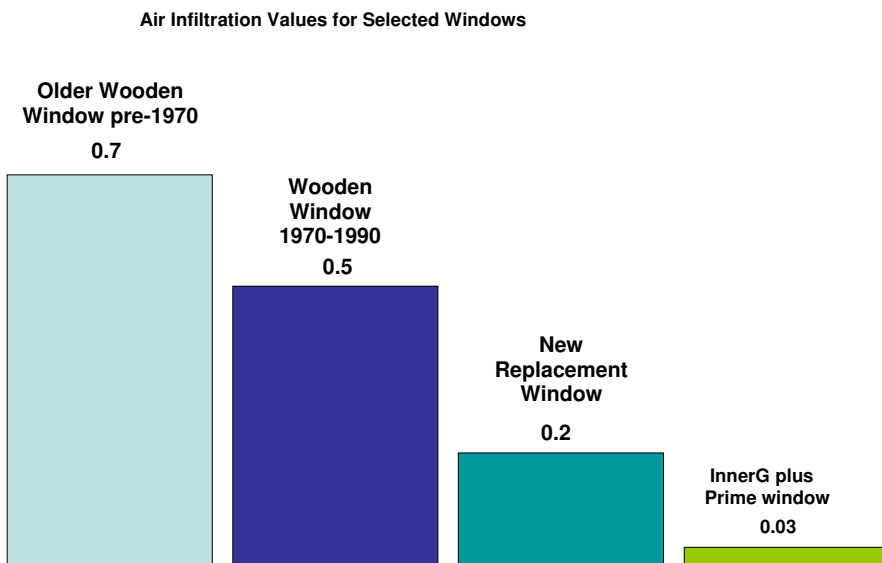


The InnerG window adds approximately 1.5 to the R-value of an existing window installation regardless of its original reading. This actually makes a single-pane "prime" window with the InnerG window added into a better insulator than most brand name double-glazed replacements at a fraction of the installed price.

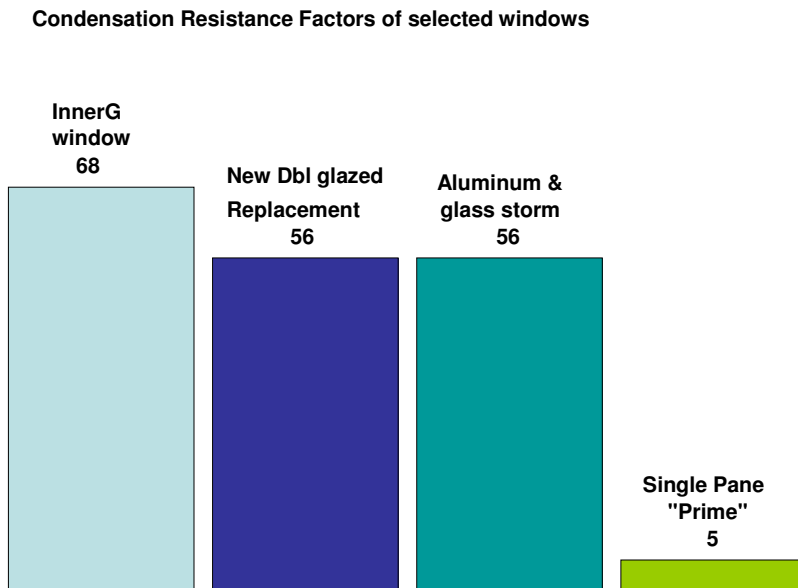
Here's a chart to illustrate the R-values of different windows.



Where the InnerG window really shines is in stopping air infiltration. If you have older wooden windows of the type commonly installed before 1970 you have no-doubt noticed the drafts that they let in. This has a huge impact on the window's thermal performance. In fact, with older installations you can lose ten times as much heat through air infiltration as you do through conductive heat loss (ie having a low R-value window). The InnerG window essentially stops all air infiltration when installed properly inside an existing window casing, and makes for vastly superior thermal performance both for heating and cooling situations. Here's a chart of the measured air infiltration of various window installations measured in cubic feet of air per minute per ft:



Also, because the InnerG window is made of highly insulative acrylic rather than glass, it produces an installation that is highly resistant to condensation. The warmer surface of the acrylic window pane serves to eliminate almost all interior window condensation. This chart shows the Condensation Resistance Factor (CRF) for various window installations:



Summarizing, the InnerG window gives you more R-value, virtually eliminates air infiltration and condensation, all for a price that is much less than an inconvenient and complicated window replacement project, and it can be installed in minutes. Each individual installation is different, but as a “rule of thumb” the InnerG windows reduces the total heat transfer through your windows by between 40% to 70% in most cases. That adds up to energy savings that pay for the windows in approximately 3 to 6 years.