

## Insulated Vinyl Window Information

|               | <u>R-Value</u> | <u>U-Value</u> | <u>SHGC Structural Rating</u> |
|---------------|----------------|----------------|-------------------------------|
| Clear Glass   | 2.00           | 0.49           | 0.63                          |
| Low E Glass   | 2.70           | 0.34           | 0.31                          |
| Low E + Argon |                | 0.29           | 0.24                          |

## Terminology

### Solar Heat Gain Coefficient (SHGC)

Solar Heat Gain Coefficient (SHGC) measures how well a product blocks the heat caused by sunlight. The SHGC is the fraction of incident solar radiation admitted through a window, both directly transmitted and absorbed, then subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.

### U-Factor/U-Value

U-factor or U-value is a number that represents the rate of heat loss through a window or door. The lower the number, the greater a window resists the transfer of heat. A U-factor of 0.4 or lower represents a good insulating value.

### R-Value

Refers to a window's resistance to thermal transfer or heat flow. The higher the value, the better the insulation.

### Low-Emmissivity (Low E) Glass

Low-E glass is manufactured by depositing a microscopically thin, transparent metal or metallic oxide layer on the glass. Low-E coatings reduce radiant heat loss, and can reduce the passage of UV rays. Use of heat-resistant (or absorbing) glass began in the 1950s, as did the use of reflective (or mirror) glass.

### Tempered Glass

Glass that is treated with heat during the manufacturing process. Safety glass can withstand abnormal force or pressure on its surface and does not break into sharp pieces. Code requires tempered glass in all doors (including patio doors) and in windows that are located near doors, bathtubs or showers.