

Thermal Performance Data

Visions 3500 Single Hung Picture/Transom Windows (9310)
(non J-channel)



| US Qualification Criteria | Climate Zone | U-Value | SHGC | |
|---------------------------|---------------|-------------|-------------|-------------------------------|
| <p>As of January 2016</p> | Northern | ≤ 0.27 | Any | Prescriptive |
| | | $= 0.28$ | ≥ 0.32 | Equivalent Energy Performance |
| | | $= 0.29$ | ≥ 0.37 | |
| | | $= 0.30$ | ≥ 0.42 | |
| | North-Central | ≤ 0.30 | ≤ 0.40 | |
| | South-Central | ≤ 0.30 | ≤ 0.25 | |
| Southern | ≤ 0.40 | ≤ 0.25 | | |

| Canadian Qualification Criteria | Climate Zone | U-Value | or | Energy Rating |
|---|--|-------------|----|---------------|
| <p>ENERGY STAR® ZONE 3 ZONE 2 ZONE 1</p> <p>As of February 2015</p> | Zone 1 | ≤ 1.60 | | ≥ 25 |
| | Zone 2 | ≤ 1.40 | | ≥ 29 |
| | Zone 3 | ≤ 1.20 | | ≥ 34 |
| | Air Leakage ≤ 0.3 cfm/ft ² | | | |

U-Value

A measurement of how much energy a material conducts. The lower the U-Value, the greater the insulating effect.

Solar Heat Gain Coefficient (SHGC)

Measures how well a window or door prevents heat from passing through it. The lower a window or door's SHGC, the less heat it allows to pass through it.

Visible Light Transmittance

The amount of light in the visible portion of the spectrum that passes through a glazing material.

Condensation Resistance Rating

Measures how well a window resists the formation of condensation on the inside surface. The higher the number the better resistance to condensation.

Energy Rating

A value demonstrating the balance between U-Value, SHGC and air leakage. The higher the number, the more efficient the product.

R-Value

A measurement of how much a material resists heat transfer. A higher R-Value means a greater insulating effect and a lower rate of heat flow out of the home. While **R-value** measures resistance to heat transfer, **U-value** measures the rate of heat transfer. In simple terms, **U-value** is the mathematical reciprocal of **R-value**; that is, **U = 1/R and R = 1/U**.

^a Total Unit calculations are derived from computer simulations that are then verified by 3rd party testing in accordance with NFRC 100, NFRC 200, and NFRC 500.

^b Published values reflect 3mm/3mm glass lite thicknesses.

ENERGY PERFORMANCE DATA

Visions 3500 Single Hung Picture/Transom Windows (9310)



US
ENERGY STAR V
6.0

CANADIAN ENERGY
PERFORMANCE DATA



CANADA
ENERGY
STAR v 4.1

| Grille Option | Glazing thickness | ³NFRC Total Unit Calculations ⁴Glazing Option | CPD # | U-Value | Solar Heat Gain Coefficient | Visible Light Transmittance | Condensation Resistance Rating | US ENERGY STAR V 6.0 | | | | U-Value (metric) | Maximum Air Leakage Ls/m² | Air Infiltration/Exfiltration Average | Energy Rating | CANADA ENERGY STAR v 4.1 | | | |
|-----------------------|-------------------------|--|-----------------------|-----------------------|-----------------------------|-----------------------------|--------------------------------|----------------------|----|----|---|------------------|---------------------------|---------------------------------------|---------------|--------------------------|---|---|--|
| | | | | | | | | N | NC | SC | S | | | | | 1 | 2 | 3 | |
| | | | | | | | | | | | | | | | | | | | |
| No GIA or SDL | 3/4" | Clear Insul | WEA-N-274-00865-00001 | 0.46 | 0.67 | 0.70 | 44 | | | | | 2.61 | 0.6 | 0.05 | 21 | | | | |
| | 3/4" | Insul Low-E | WEA-N-274-00881-00001 | 0.31 | 0.36 | 0.61 | 56 | | | | | 1.76 | 0.6 | 0.05 | 22 | | | | |
| | 3/4" | Insul Low E w/Argon | WEA-N-274-00897-00001 | 0.27 | 0.36 | 0.61 | 60 | Y | Y | | | 1.53 | 0.6 | 0.05 | 27 | Y | | | |
| | 3/4" | Passive Solar | WEA-N-274-00995-00001 | 0.31 | 0.59 | 0.68 | 56 | | | | | 1.76 | 0.6 | 0.05 | 35 | Y | Y | Y | |
| | 3/4" | Passive Solar w/Argon | WEA-N-274-01046-00001 | 0.28 | 0.59 | 0.68 | 60 | Y | | | | 1.59 | 0.6 | 0.05 | 39 | Y | Y | Y | |
| | 3/4" | Zo-e-shield 5 | WEA-N-274-00913-00001 | 0.30 | 0.24 | 0.55 | 57 | | Y | Y | Y | | 1.70 | 0.6 | 0.05 | 17 | | | |
| | 3/4" | Zo-e-shield 5 w/ Argon | WEA-N-274-00955-00001 | 0.26 | 0.24 | 0.55 | 60 | Y | Y | Y | Y | | 1.48 | 0.6 | 0.05 | 21 | Y | | |
| | 3/4" | Zo-e-shield 5 Extreme | WEA-N-274-00921-00001 | 0.24 | 0.23 | 0.54 | 44 | Y | Y | Y | Y | | 1.36 | 0.6 | 0.05 | 23 | Y | Y | |
| | 3/4" | Zo-e-shield 5 Extreme w/ Argon | WEA-N-274-00963-00001 | 0.22 | 0.23 | 0.54 | 48 | Y | Y | Y | Y | | 1.25 | 0.6 | 0.05 | 26 | Y | Y | |
| | 3/4" | Zo-e-shield 6 | WEA-N-274-00929-00001 | 0.32 | 0.24 | 0.54 | 54 | | | | Y | | 1.82 | 0.6 | 0.05 | 14 | | | |
| | 3/4" | Zo-e-shield 6 w/ Argon | WEA-N-274-00971-00001 | 0.27 | 0.24 | 0.54 | 58 | Y | Y | Y | Y | | 1.53 | 0.6 | 0.05 | 20 | Y | | |
| | 3/4" | Zo-e SafeGuard Certified | WEA-N-274-00937-00001 | 0.31 | 0.24 | 0.54 | 49 | | | | Y | | 1.76 | 0.6 | 0.05 | 15 | | | |
| | 3/4" | Zo-e SafeGuard Certified w/ Argon | WEA-N-274-00979-00001 | 0.27 | 0.24 | 0.54 | 59 | Y | Y | Y | Y | | 1.53 | 0.6 | 0.05 | 20 | Y | | |
| | 3/4" | Insul Low-E 240 | WEA-N-274-01012-00001 | 0.31 | 0.23 | 0.34 | 56 | | | | Y | | 1.76 | 0.6 | 0.05 | 15 | | | |
| | 3/4" | Insul Low-E 240 w/Argon | WEA-N-274-01063-00001 | 0.27 | 0.22 | 0.34 | 60 | Y | Y | Y | Y | | 1.53 | 0.6 | 0.05 | 19 | Y | | |
| | Less Than 1" GIA or SDL | 3/4" | Clear Insul | WEA-N-274-00865-00002 | 0.46 | 0.60 | 0.63 | 44 | | | | | 2.61 | 0.6 | 0.05 | 17 | | | |
| 3/4" | | Insul Low-E | WEA-N-274-00881-00002 | 0.31 | 0.32 | 0.55 | 56 | | | | | 1.76 | 0.6 | 0.05 | 20 | | | | |
| 3/4" | | Insul Low E w/Argon | WEA-N-274-00897-00002 | 0.27 | 0.32 | 0.55 | 60 | Y | Y | | | 1.53 | 0.6 | 0.05 | 25 | Y | | | |
| 3/4" | | Passive Solar | WEA-N-274-00995-00002 | 0.31 | 0.53 | 0.61 | 56 | | | | | 1.76 | 0.6 | 0.05 | 32 | Y | Y | | |
| 3/4" | | Passive Solar w/Argon | WEA-N-274-01046-00002 | 0.28 | 0.53 | 0.61 | 60 | Y | | | | 1.59 | 0.6 | 0.05 | 36 | Y | Y | Y | |
| 3/4" | | Zo-e-shield 5 | WEA-N-274-00913-00002 | 0.30 | 0.22 | 0.50 | 57 | | Y | Y | Y | | 1.70 | 0.6 | 0.05 | 15 | | | |
| 3/4" | | Zo-e-shield 5 w/ Argon | WEA-N-274-00955-00002 | 0.26 | 0.21 | 0.50 | 60 | Y | Y | Y | Y | | 1.48 | 0.6 | 0.05 | 20 | Y | | |
| 3/4" | | Zo-e-shield 5 Extreme | WEA-N-274-00921-00002 | 0.24 | 0.21 | 0.48 | 44 | Y | Y | Y | Y | | 1.36 | 0.6 | 0.05 | 22 | Y | Y | |
| 3/4" | | Zo-e-shield 5 Extreme w/ Argon | WEA-N-274-00963-00002 | 0.22 | 0.21 | 0.48 | 48 | Y | Y | Y | Y | | 1.25 | 0.6 | 0.05 | 25 | Y | Y | |
| 3/4" | | Zo-e-shield 6 | WEA-N-274-00930-00001 | 0.33 | 0.22 | 0.49 | 54 | | | | Y | | 1.87 | 0.6 | 0.05 | 12 | | | |
| 3/4" | | Zo-e-shield 6 w/ Argon | WEA-N-274-00972-00001 | 0.29 | 0.22 | 0.49 | 58 | | Y | Y | Y | | 1.65 | 0.6 | 0.05 | 16 | | | |
| 3/4" | | Zo-e SafeGuard Certified | WEA-N-274-00938-00001 | 0.33 | 0.22 | 0.49 | 49 | | | | Y | | 1.87 | 0.6 | 0.05 | 12 | | | |
| 3/4" | | Zo-e SafeGuard Certified w/ Argon | WEA-N-274-00980-00001 | 0.29 | 0.21 | 0.49 | 59 | | Y | Y | Y | | 1.65 | 0.6 | 0.05 | 16 | | | |
| 3/4" | | Insul Low-E 240 | WEA-N-274-01012-00002 | 0.31 | 0.21 | 0.31 | 56 | | | | Y | | 1.76 | 0.6 | 0.05 | 13 | | | |
| 3/4" | | Insul Low-E 240 w/Argon | WEA-N-274-01063-00002 | 0.27 | 0.20 | 0.31 | 60 | Y | Y | Y | Y | | 1.53 | 0.6 | 0.05 | 18 | Y | | |
| 3/4" | | Insul Low-E 340 | WEA-N-274-01029-00002 | 0.30 | 0.15 | 0.30 | 57 | | Y | Y | Y | | 1.70 | 0.6 | 0.05 | 11 | | | |
| 3/4" | Insul Low-E 340 w/Argon | WEA-N-274-01080-00002 | 0.26 | 0.14 | 0.30 | 60 | Y | Y | Y | Y | | 1.48 | 0.6 | 0.05 | 16 | | | | |
| 1" Or Over GIA or SDL | 3/4" | Clear Insul | WEA-N-274-00865-00003 | 0.46 | 0.54 | 0.56 | 44 | | | | | 2.61 | 0.6 | 0.05 | 14 | | | | |
| | 3/4" | Insul Low-E | WEA-N-274-00881-00003 | 0.31 | 0.29 | 0.49 | 56 | | | | | 1.76 | 0.6 | 0.05 | 18 | | | | |
| | 3/4" | Insul Low E w/Argon | WEA-N-274-00897-00003 | 0.27 | 0.29 | 0.49 | 60 | Y | Y | | | 1.53 | 0.6 | 0.05 | 23 | Y | | | |
| | 3/4" | Passive Solar | WEA-N-274-00995-00003 | 0.31 | 0.47 | 0.54 | 56 | | | | | 1.76 | 0.6 | 0.05 | 29 | Y | | | |
| | 3/4" | Passive Solar w/Argon | WEA-N-274-01046-00003 | 0.28 | 0.48 | 0.54 | 60 | Y | | | | 1.59 | 0.6 | 0.05 | 33 | Y | Y | | |
| | 3/4" | Zo-e-shield 5 | WEA-N-274-00913-00003 | 0.30 | 0.20 | 0.44 | 57 | | Y | Y | Y | | 1.70 | 0.6 | 0.05 | 14 | | | |
| | 3/4" | Zo-e-shield 5 w/ Argon | WEA-N-274-00955-00003 | 0.26 | 0.19 | 0.44 | 60 | Y | Y | Y | Y | | 1.48 | 0.6 | 0.05 | 18 | Y | | |
| | 3/4" | Zo-e-shield 5 Extreme | WEA-N-274-00921-00003 | 0.24 | 0.19 | 0.43 | 44 | Y | Y | Y | Y | | 1.36 | 0.6 | 0.05 | 21 | Y | Y | |
| | 3/4" | Zo-e-shield 5 Extreme w/ Argon | WEA-N-274-00963-00003 | 0.22 | 0.19 | 0.43 | 48 | Y | Y | Y | Y | | 1.25 | 0.6 | 0.05 | 24 | Y | Y | |
| | 3/4" | Zo-e-shield 6 | WEA-N-274-00930-00002 | 0.33 | 0.20 | 0.43 | 54 | | | | Y | | 1.87 | 0.6 | 0.05 | 11 | | | |
| | 3/4" | Zo-e-shield 6 w/ Argon | WEA-N-274-00972-00002 | 0.29 | 0.19 | 0.43 | 58 | | Y | Y | Y | | 1.65 | 0.6 | 0.05 | 15 | | | |
| | 3/4" | Zo-e SafeGuard Certified | WEA-N-274-00938-00002 | 0.33 | 0.20 | 0.43 | 49 | | | | Y | | 1.87 | 0.6 | 0.05 | 11 | | | |
| | 3/4" | Zo-e SafeGuard Certified w/ Argon | WEA-N-274-00980-00002 | 0.29 | 0.19 | 0.43 | 59 | | Y | Y | Y | | 1.65 | 0.6 | 0.05 | 15 | | | |
| | 3/4" | Insul Low-E 240 | WEA-N-274-01012-00003 | 0.31 | 0.19 | 0.27 | 56 | | | | Y | | 1.76 | 0.6 | 0.05 | 12 | | | |
| | 3/4" | Insul Low-E 240 w/Argon | WEA-N-274-01063-00003 | 0.27 | 0.18 | 0.27 | 60 | Y | Y | Y | Y | | 1.53 | 0.6 | 0.05 | 17 | Y | | |
| | 3/4" | Insul Low-E 340 | WEA-N-274-01029-00003 | 0.30 | 0.13 | 0.26 | 57 | | Y | Y | Y | | 1.70 | 0.6 | 0.05 | 10 | | | |
| 3/4" | Insul Low-E 340 w/Argon | WEA-N-274-01080-00003 | 0.26 | 0.13 | 0.26 | 60 | Y | Y | Y | Y | | 1.48 | 0.6 | 0.05 | 15 | | | | |
| 3/4" | Bronze Low E | WEA-N-274-00881-00013 | 0.31 | 0.28 | 0.36 | 56 | | | | | | 1.76 | 0.6 | 0.05 | 18 | | | | |
| 3/4" | Bronze Low E w/Argon | WEA-N-274-00897-00013 | 0.27 | 0.28 | 0.36 | 60 | Y | Y | | | | 1.53 | 0.6 | 0.05 | 23 | Y | | | |