

## Weather Shield Thermal Performance Criteria

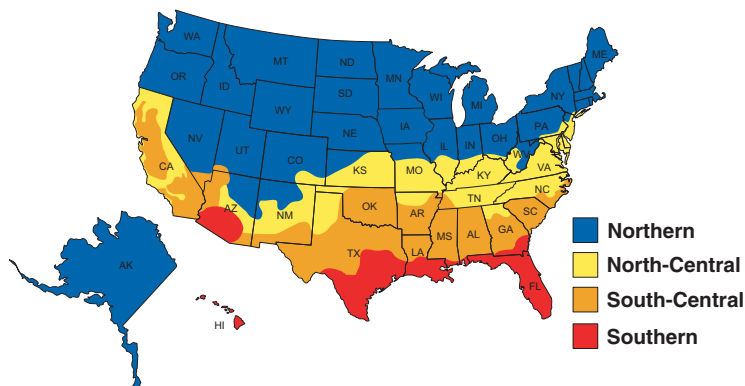


**Weather Shield®**  
Premium Windows & Doors



As a proud ENERGY STAR® partner, we ensure our products are rated, certified and labeled for U-Value and Solar Heat Gain by the National Fenestration Rating Council (NFRC). The 2010 ENERGY STAR criteria for residential windows and doors are tailored to four Climate Zones. A product's energy efficiency for a given climate is based on its impact on heat gain and loss in cold weather and heat gain in warm weather.

### United States ENERGY STAR Criteria



#### Windows

| Climate Zone  | U-Factor <sup>1</sup> | SHGC <sup>2</sup> |                               |
|---------------|-----------------------|-------------------|-------------------------------|
| Northern      | ≤0.30                 | Any               | Prescriptive                  |
|               | = 0.31                | ≥0.35             | Equivalent Energy Performance |
|               | = 0.32                | ≥0.40             |                               |
| North-Central | ≤0.32                 | ≤0.40             |                               |
| South-Central | ≤0.35                 | ≤0.30             |                               |
| Southern      | ≤0.60                 | ≤0.27             |                               |

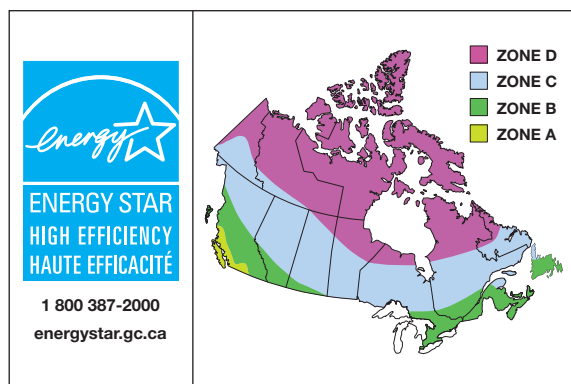
#### Doors

| Glazing Level | U-Factor <sup>1</sup> | SHGC <sup>2</sup> |
|---------------|-----------------------|-------------------|
| Opaque        | ≤0.21                 | No Rating         |
| ≤ 1/2-Lite    | ≤0.27                 | ≤0.30             |
| > 1/2-Lite    | ≤0.32                 | ≤0.30             |

<sup>1</sup> Btu/h • ft<sup>2</sup> • °F

<sup>2</sup> Fraction of Incident solar radiation

### Canadian ENERGY STAR Criteria



#### ENERGY STAR Requirements for Windows (Effective October 1, 2010)

| Zone | Heating Degree-Day Range | Compliance Paths                                                                                              |    |                                                                            |                       |
|------|--------------------------|---------------------------------------------------------------------------------------------------------------|----|----------------------------------------------------------------------------|-----------------------|
|      |                          | Energy Rating (ER)                                                                                            |    | U-Factor                                                                   |                       |
|      |                          | Minimum ER (unitless)<br>Maximum U-Factor 2.00<br>W/m <sup>2</sup> • K<br>(0.35 Btu/h • ft <sup>2</sup> • °F) | or | Maximum U-Factor<br>W/m <sup>2</sup> • K<br>(Btu/h • ft <sup>2</sup> • °F) | Minimum ER (unitless) |
| A    | ≤ 3500                   | 21                                                                                                            | or | 1.80 (0.32)                                                                | 13                    |
| B    | > 3500 to ≤ 5500         | 25                                                                                                            | or | 1.60 (0.28)                                                                | 17                    |
| C    | > 5500 to ≤ 8000         | 29                                                                                                            | or | 1.40 (0.25)                                                                | 21                    |
| D    | > 8000                   | 34                                                                                                            | or | 1.20 (0.21)                                                                | 25                    |

#### ENERGY STAR Requirements for Doors (Effective October 1, 2010)

| Zone | Heating Degree-Day Range | Compliance Paths                                                                                              |    |                                                                            |                       |
|------|--------------------------|---------------------------------------------------------------------------------------------------------------|----|----------------------------------------------------------------------------|-----------------------|
|      |                          | Energy Rating (ER)                                                                                            |    | U-Factor                                                                   |                       |
|      |                          | Minimum ER (unitless)<br>Maximum U-Factor 2.00<br>W/m <sup>2</sup> • K<br>(0.35 Btu/h • ft <sup>2</sup> • °F) | or | Maximum U-Factor<br>W/m <sup>2</sup> • K<br>(Btu/h • ft <sup>2</sup> • °F) | Minimum ER (unitless) |
| A    | ≤ 3500                   | 21                                                                                                            | or | 1.80 (0.32)                                                                | 13                    |
| B    | > 3500 to ≤ 5500         | 25                                                                                                            | or | 1.60 (0.28)                                                                | 17                    |
| C    | > 5500 to ≤ 8000         | 29                                                                                                            | or | 1.40 (0.25)                                                                | 21                    |
| D    | > 8000                   | 34                                                                                                            | or | 1.20 (0.21)                                                                | 25                    |

<sup>1</sup> The U-factor measures how well a window/door prevents hot or cold from transferring through the product. The lower the U-factor, the more energy efficient the material.

<sup>2</sup> The Solar Heat Gain Coefficient (SHGC) measures how well a window or door prevents heat from passing through it. The lower the window or door SHGC, the less heat it allows to pass through it.

Patio Doors are tested to the specification of > 1/2 lite panel.

All units are tested in accordance to National Fenestration Rating Council (NFRC) procedures. U-Factors are derived from computer simulations using WINDOW 5.2 and THERM 5.2 programs. Simulations are then verified by testing in accordance with NFRC 100-04.

The performance of windows and doors may be affected by factors beyond Weather Shield's control, such as handling and installation, construction details of the building, exposure conditions, maintenance, normal wear and tear, migration of an inert gas from the insulated glass unit and the like. Ratings (for example, R or U-factors, infiltration tests, etc.) are for comparison purposes only. While Weather Shield products are manufactured to meet or exceed published ratings, it is not possible to guarantee that they will meet or exceed those ratings after they have been installed, and this is specifically excluded from any warranty.

Weather Shield reserves the right to change its products without prior notification. Please verify with labels on products to confirm ratings and test dates. Ratings vary based on glazing, grilles, etc. This information is accurate based on the date specified on the test date referred to in the document.

# Thermal Performance Data

Aspire Casement Windows



**Weather Shield®**  
Windows & Doors

| ENERGY PERFORMANCE DATA                   |                   |                                |         |                             |                             |                                | <div><br/>ENERGY STAR<br/>US<br/>Energy Star</div> |    |    |   | CANADIAN ENERGY PERFORMANCE DATA |                         |                | <div><br/>ENERGY STAR<br/>CANADA<br/>Energy Star</div> |   |   |   |
|-------------------------------------------|-------------------|--------------------------------|---------|-----------------------------|-----------------------------|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|----|----|---|----------------------------------|-------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|
| NFRC Total Unit Calculations <sup>a</sup> |                   |                                |         |                             |                             |                                |                                                                                                                                      |    |    |   | U-Value (metric)                 | Air Infiltration L/s/m2 | Energy R ating |                                                                                                                                           |   |   |   |
| Grille Option                             | Glazing thickness | Glazing Option                 | U Value | Solar Heat Gain Coefficient | Visible Light Transmittance | Condensation Resistance Rating |                                                                                                                                      |    |    |   |                                  |                         |                |                                                                                                                                           |   |   |   |
|                                           |                   |                                |         |                             |                             |                                | N                                                                                                                                    | NC | SC | S |                                  |                         |                | A                                                                                                                                         | B | C | D |
| No Grilles                                | 3/4"              | Clear Insul                    | 0.43    | 0.55                        | 0.58                        | 45                             |                                                                                                                                      |    |    |   | 2.44                             | 0.08                    | 18             |                                                                                                                                           |   |   |   |
|                                           | 3/4"              | Insul Low-E                    | 0.30    | 0.30                        | 0.52                        | 57                             | Y                                                                                                                                    | Y  | Y  |   | 1.70                             | 0.08                    | 20             | Y                                                                                                                                         |   |   |   |
|                                           | 3/4"              | Insul Low E w/Argon            | 0.27    | 0.30                        | 0.52                        | 61                             | Y                                                                                                                                    | Y  | Y  |   | 1.53                             | 0.08                    | 24             | Y                                                                                                                                         | Y |   |   |
|                                           | 3/4"              | Zo-e-shield 5                  | 0.30    | 0.20                        | 0.46                        | 58                             | Y                                                                                                                                    | Y  | Y  | Y | 1.70                             | 0.08                    | 14             | Y                                                                                                                                         |   |   |   |
|                                           | 3/4"              | Zo-e-shield 5 w/ Argon         | 0.26    | 0.20                        | 0.46                        | 61                             | Y                                                                                                                                    | Y  | Y  | Y | 1.48                             | 0.08                    | 19             | Y                                                                                                                                         | Y |   |   |
|                                           | 3/4"              | Zo-e-shield 5 Extreme          | 0.25    | 0.19                        | 0.42                        | 45                             | Y                                                                                                                                    | Y  | Y  | Y | 1.42                             | 0.08                    | 20             | Y                                                                                                                                         | Y | Y |   |
|                                           | 3/4"              | Zo-e-shield 5 Extreme w/ Argon | 0.23    | 0.19                        | 0.42                        | 49                             | Y                                                                                                                                    | Y  | Y  | Y | 1.31                             | 0.08                    | 22             | Y                                                                                                                                         | Y | Y |   |
|                                           | 3/4"              | Zo-e-shield 6                  | 0.32    | 0.20                        | 0.45                        | 51                             |                                                                                                                                      | Y  | Y  | Y | 1.82                             | 0.08                    | 12             | Y                                                                                                                                         |   |   |   |
|                                           | 3/4"              | Zo-e-shield 6 w/ Argon         | 0.27    | 0.20                        | 0.45                        | 59                             | Y                                                                                                                                    | Y  | Y  | Y | 1.53                             | 0.08                    | 18             | Y                                                                                                                                         | Y |   |   |
|                                           | 1"                | Zo-e-shield 7                  | 0.24    | 0.19                        | 0.37                        | 65                             | Y                                                                                                                                    | Y  | Y  | Y | 1.36                             | 0.08                    | 21             | Y                                                                                                                                         | Y | Y |   |
|                                           | 1"                | Zo-e-shield 7 w/ Argon         | 0.21    | 0.18                        | 0.37                        | 70                             | Y                                                                                                                                    | Y  | Y  | Y | 1.19                             | 0.08                    | 24             | Y                                                                                                                                         | Y | Y | Y |
| 5/8" - 13/16" GIA                         | 3/4"              | Clear Insul                    | 0.43    | 0.50                        | 0.54                        | 45                             |                                                                                                                                      |    |    |   | 2.44                             | 0.08                    | 15             |                                                                                                                                           |   |   |   |
|                                           | 3/4"              | Insul Low-E                    | 0.30    | 0.28                        | 0.47                        | 57                             | Y                                                                                                                                    | Y  | Y  |   | 1.70                             | 0.08                    | 19             | Y                                                                                                                                         |   |   |   |
|                                           | 3/4"              | Insul Low E w/Argon            | 0.27    | 0.27                        | 0.47                        | 61                             | Y                                                                                                                                    | Y  | Y  | Y | 1.53                             | 0.08                    | 22             | Y                                                                                                                                         | Y |   |   |
|                                           | 3/4"              | Zo-e-shield 5                  | 0.30    | 0.19                        | 0.42                        | 58                             | Y                                                                                                                                    | Y  | Y  | Y | 1.70                             | 0.08                    | 14             | Y                                                                                                                                         |   |   |   |
|                                           | 3/4"              | Zo-e-shield 5 w/ Argon         | 0.26    | 0.18                        | 0.42                        | 61                             | Y                                                                                                                                    | Y  | Y  | Y | 1.48                             | 0.08                    | 18             | Y                                                                                                                                         | Y |   |   |
|                                           | 3/4"              | Zo-e-shield 5 Extreme          | 0.25    | 0.17                        | 0.38                        | 45                             | Y                                                                                                                                    | Y  | Y  | Y | 1.42                             | 0.08                    | 19             | Y                                                                                                                                         | Y | Y |   |
|                                           | 3/4"              | Zo-e-shield 5 Extreme w/ Argon | 0.23    | 0.17                        | 0.38                        | 49                             | Y                                                                                                                                    | Y  | Y  | Y | 1.31                             | 0.08                    | 21             | Y                                                                                                                                         | Y | Y |   |
|                                           | 3/4"              | Zo-e-shield 6                  | 0.33    | 0.19                        | 0.41                        | 51                             |                                                                                                                                      |    | Y  | Y | 1.87                             | 0.08                    | 10             |                                                                                                                                           |   |   |   |
|                                           | 3/4"              | Zo-e-shield 6 w/ Argon         | 0.28    | 0.18                        | 0.41                        | 59                             | Y                                                                                                                                    | Y  | Y  | Y | 1.59                             | 0.08                    | 16             | Y                                                                                                                                         | Y |   |   |
|                                           | 1"                | Zo-e-shield 7                  | 0.24    | 0.17                        | 0.34                        | 65                             | Y                                                                                                                                    | Y  | Y  | Y | 1.36                             | 0.08                    | 20             | Y                                                                                                                                         | Y | Y |   |
|                                           | 1"                | Zo-e-shield 7 w/ Argon         | 0.21    | 0.17                        | 0.34                        | 70                             | Y                                                                                                                                    | Y  | Y  | Y | 1.19                             | 0.08                    | 24             | Y                                                                                                                                         | Y | Y | Y |
| Over 7/8" GIA or SDL                      | 3/4"              | Clear Insul                    | 0.43    | 0.45                        | 0.48                        | 45                             |                                                                                                                                      |    |    |   | 2.44                             | 0.08                    | 12             |                                                                                                                                           |   |   |   |
|                                           | 3/4"              | Insul Low-E                    | 0.30    | 0.25                        | 0.42                        | 57                             | Y                                                                                                                                    | Y  | Y  | Y | 1.70                             | 0.08                    | 17             | Y                                                                                                                                         |   |   |   |
|                                           | 3/4"              | Insul Low E w/Argon            | 0.27    | 0.25                        | 0.42                        | 61                             | Y                                                                                                                                    | Y  | Y  | Y | 1.53                             | 0.08                    | 21             | Y                                                                                                                                         | Y |   |   |
|                                           | 3/4"              | Zo-e-shield 5                  | 0.30    | 0.17                        | 0.38                        | 58                             | Y                                                                                                                                    | Y  | Y  | Y | 1.70                             | 0.08                    | 12             | Y                                                                                                                                         |   |   |   |
|                                           | 3/4"              | Zo-e-shield 5 w/ Argon         | 0.26    | 0.17                        | 0.38                        | 61                             | Y                                                                                                                                    | Y  | Y  | Y | 1.48                             | 0.08                    | 17             | Y                                                                                                                                         | Y |   |   |
|                                           | 3/4"              | Zo-e-shield 5 Extreme          | 0.25    | 0.16                        | 0.34                        | 45                             | Y                                                                                                                                    | Y  | Y  | Y | 1.42                             | 0.08                    | 18             | Y                                                                                                                                         | Y | Y |   |
|                                           | 3/4"              | Zo-e-shield 5 Extreme w/ Argon | 0.23    | 0.16                        | 0.34                        | 49                             | Y                                                                                                                                    | Y  | Y  | Y | 1.31                             | 0.08                    | 21             | Y                                                                                                                                         | Y | Y |   |
|                                           | 3/4"              | Zo-e-shield 6                  | 0.33    | 0.17                        | 0.37                        | 51                             |                                                                                                                                      |    | Y  | Y | 1.87                             | 0.08                    | 9              |                                                                                                                                           |   |   |   |
|                                           | 3/4"              | Zo-e-shield 6 w/ Argon         | 0.28    | 0.17                        | 0.37                        | 59                             | Y                                                                                                                                    | Y  | Y  | Y | 1.59                             | 0.08                    | 15             | Y                                                                                                                                         | Y |   |   |
|                                           | 1"                | Zo-e-shield 7                  | 0.24    | 0.16                        | 0.30                        | 65                             | Y                                                                                                                                    | Y  | Y  | Y | 1.36                             | 0.08                    | 19             | Y                                                                                                                                         | Y | Y |   |
|                                           | 1"                | Zo-e-shield 7 w/ Argon         | 0.21    | 0.16                        | 0.30                        | 70                             | Y                                                                                                                                    | Y  | Y  | Y | 1.19                             | 0.08                    | 23             | Y                                                                                                                                         | Y | Y | Y |

<sup>a</sup> Total Unit calculations are derived from computer simulations that are then verified by 3rd party testing in accordance with NFRC 100-04.

| US Qualification Criteria                                                                                 | Climate Zone  | U-Factor | *SHGC  |
|-----------------------------------------------------------------------------------------------------------|---------------|----------|--------|
| <br>As of January 2010 | Northern      | <=0.30   | Any    |
|                                                                                                           |               | <=0.31   | >=0.35 |
|                                                                                                           |               | <=0.32   | >=0.40 |
|                                                                                                           | North-Central | <=0.32   | <=0.40 |
|                                                                                                           | South-Central | <=0.35   | <=0.30 |
|                                                                                                           | Southern      | <=0.60   | <=0.27 |

\* SHGC = Solar Heat Gain Coefficient

# Thermal Performance Data

Aspire Casement Picture Windows



**Weather Shield®**  
Windows & Doors

| ENERGY PERFORMANCE DATA                   |                   |                                |         |                             |                             |                                | <br>US<br>Energy Star |    |    |   | CANADIAN ENERGY PERFORMANCE DATA |      |    | <br>CANADA<br>Energy Star |   |   |   |                         |  |  |                |  |  |
|-------------------------------------------|-------------------|--------------------------------|---------|-----------------------------|-----------------------------|--------------------------------|---------------------------------------------------------------------------------------------------------|----|----|---|----------------------------------|------|----|--------------------------------------------------------------------------------------------------------------|---|---|---|-------------------------|--|--|----------------|--|--|
| NFRC Total Unit Calculations <sup>a</sup> |                   |                                |         |                             |                             |                                |                                                                                                         |    |    |   | U-Value (metric)                 |      |    |                                                                                                              |   |   |   | Air Infiltration L/s/m2 |  |  | Energy R ating |  |  |
| Grille Option                             | Glazing thickness | Glazing Option                 | U Value | Solar Heat Gain Coefficient | Visible Light Transmittance | Condensation Resistance Rating |                                                                                                         |    |    |   |                                  |      |    |                                                                                                              |   |   |   |                         |  |  |                |  |  |
|                                           |                   |                                |         |                             |                             |                                | N                                                                                                       | NC | SC | S |                                  |      |    | A                                                                                                            | B | C | D |                         |  |  |                |  |  |
| No Grilles                                | 3/4"              | Clear Insul                    | 0.44    | 0.62                        | 0.66                        | 45                             |                                                                                                         |    |    |   | 2.50                             | 0.01 | 21 |                                                                                                              |   |   |   |                         |  |  |                |  |  |
|                                           | 3/4"              | Insul Low-E                    | 0.30    | 0.34                        | 0.59                        | 57                             | Y                                                                                                       | Y  |    |   | 1.70                             | 0.01 | 22 | Y                                                                                                            |   |   |   |                         |  |  |                |  |  |
|                                           | 3/4"              | Insul Low E w/Argon            | 0.26    | 0.34                        | 0.59                        | 60                             | Y                                                                                                       | Y  |    |   | 1.48                             | 0.01 | 27 | Y                                                                                                            | Y |   |   |                         |  |  |                |  |  |
|                                           | 3/4"              | Zo-e-shield 5                  | 0.29    | 0.23                        | 0.53                        | 57                             | Y                                                                                                       | Y  | Y  | Y | 1.65                             | 0.01 | 17 | Y                                                                                                            |   |   |   |                         |  |  |                |  |  |
|                                           | 3/4"              | Zo-e-shield 5 w/ Argon         | 0.26    | 0.23                        | 0.53                        | 61                             | Y                                                                                                       | Y  | Y  | Y | 1.48                             | 0.01 | 21 | Y                                                                                                            | Y |   |   |                         |  |  |                |  |  |
|                                           | 3/4"              | Zo-e-shield 5 Extreme          | 0.24    | 0.21                        | 0.48                        | 45                             | Y                                                                                                       | Y  | Y  | Y | 1.36                             | 0.01 | 22 | Y                                                                                                            | Y | Y |   |                         |  |  |                |  |  |
|                                           | 3/4"              | Zo-e-shield 5 Extreme w/ Argon | 0.22    | 0.21                        | 0.48                        | 49                             | Y                                                                                                       | Y  | Y  | Y | 1.25                             | 0.01 | 25 | Y                                                                                                            | Y | Y |   |                         |  |  |                |  |  |
|                                           | 3/4"              | Zo-e-shield 6                  | 0.31    | 0.23                        | 0.52                        | 54                             |                                                                                                         | Y  | Y  | Y | 1.76                             | 0.01 | 15 | Y                                                                                                            |   |   |   |                         |  |  |                |  |  |
|                                           | 3/4"              | Zo-e-shield 6 w/ Argon         | 0.27    | 0.23                        | 0.52                        | 58                             | Y                                                                                                       | Y  | Y  | Y | 1.53                             | 0.01 | 20 | Y                                                                                                            | Y |   |   |                         |  |  |                |  |  |
|                                           | 1"                | Zo-e-shield 7                  | 0.23    | 0.21                        | 0.42                        | 66                             | Y                                                                                                       | Y  | Y  | Y | 1.31                             | 0.01 | 24 | Y                                                                                                            | Y | Y |   |                         |  |  |                |  |  |
|                                           | 1"                | Zo-e-shield 7 w/ Argon         | 0.19    | 0.21                        | 0.42                        | 70                             | Y                                                                                                       | Y  | Y  | Y | 1.08                             | 0.01 | 28 | Y                                                                                                            | Y | Y | Y |                         |  |  |                |  |  |
| 5/8" - 13/16" GIA                         | 3/4"              | Clear Insul                    | 0.44    | 0.56                        | 0.59                        | 45                             |                                                                                                         |    |    |   | 2.50                             | 0.01 | 18 |                                                                                                              |   |   |   |                         |  |  |                |  |  |
|                                           | 3/4"              | Insul Low-E                    | 0.30    | 0.31                        | 0.52                        | 57                             | Y                                                                                                       | Y  |    |   | 1.70                             | 0.01 | 21 | Y                                                                                                            |   |   |   |                         |  |  |                |  |  |
|                                           | 3/4"              | Insul Low E w/Argon            | 0.26    | 0.31                        | 0.52                        | 60                             | Y                                                                                                       | Y  |    |   | 1.48                             | 0.01 | 26 | Y                                                                                                            | Y |   |   |                         |  |  |                |  |  |
|                                           | 3/4"              | Zo-e-shield 5                  | 0.29    | 0.21                        | 0.47                        | 57                             | Y                                                                                                       | Y  | Y  | Y | 1.65                             | 0.01 | 16 | Y                                                                                                            |   |   |   |                         |  |  |                |  |  |
|                                           | 3/4"              | Zo-e-shield 5 w/ Argon         | 0.26    | 0.20                        | 0.47                        | 61                             | Y                                                                                                       | Y  | Y  | Y | 1.48                             | 0.01 | 19 | Y                                                                                                            | Y |   |   |                         |  |  |                |  |  |
|                                           | 3/4"              | Zo-e-shield 5 Extreme          | 0.24    | 0.19                        | 0.43                        | 45                             | Y                                                                                                       | Y  | Y  | Y | 1.36                             | 0.01 | 21 | Y                                                                                                            | Y | Y |   |                         |  |  |                |  |  |
|                                           | 3/4"              | Zo-e-shield 5 Extreme w/ Argon | 0.22    | 0.19                        | 0.43                        | 49                             | Y                                                                                                       | Y  | Y  | Y | 1.25                             | 0.01 | 24 | Y                                                                                                            | Y | Y |   |                         |  |  |                |  |  |
|                                           | 3/4"              | Zo-e-shield 6                  | 0.33    | 0.21                        | 0.46                        | 54                             |                                                                                                         |    | Y  | Y | 1.87                             | 0.01 | 11 |                                                                                                              |   |   |   |                         |  |  |                |  |  |
|                                           | 3/4"              | Zo-e-shield 6 w/ Argon         | 0.28    | 0.20                        | 0.46                        | 58                             | Y                                                                                                       | Y  | Y  | Y | 1.59                             | 0.01 | 17 | Y                                                                                                            | Y |   |   |                         |  |  |                |  |  |
|                                           | 1"                | Zo-e-shield 7                  | 0.24    | 0.19                        | 0.38                        | 66                             | Y                                                                                                       | Y  | Y  | Y | 1.36                             | 0.01 | 21 | Y                                                                                                            | Y | Y |   |                         |  |  |                |  |  |
|                                           | 1"                | Zo-e-shield 7 w/ Argon         | 0.20    | 0.19                        | 0.38                        | 70                             | Y                                                                                                       | Y  | Y  | Y | 1.14                             | 0.01 | 26 | Y                                                                                                            | Y | Y | Y |                         |  |  |                |  |  |
| Over 7/8" GIA or SDL                      | 3/4"              | Clear Insul                    | 0.44    | 0.50                        | 0.53                        | 45                             |                                                                                                         |    |    |   | 2.50                             | 0.01 | 14 |                                                                                                              |   |   |   |                         |  |  |                |  |  |
|                                           | 3/4"              | Insul Low-E                    | 0.30    | 0.28                        | 0.47                        | 57                             | Y                                                                                                       | Y  | Y  |   | 1.70                             | 0.01 | 19 | Y                                                                                                            |   |   |   |                         |  |  |                |  |  |
|                                           | 3/4"              | Insul Low E w/Argon            | 0.26    | 0.28                        | 0.47                        | 60                             | Y                                                                                                       | Y  | Y  |   | 1.48                             | 0.01 | 24 | Y                                                                                                            | Y |   |   |                         |  |  |                |  |  |
|                                           | 3/4"              | Zo-e-shield 5                  | 0.29    | 0.19                        | 0.42                        | 57                             | Y                                                                                                       | Y  | Y  | Y | 1.65                             | 0.01 | 15 | Y                                                                                                            |   |   |   |                         |  |  |                |  |  |
|                                           | 3/4"              | Zo-e-shield 5 w/ Argon         | 0.26    | 0.19                        | 0.42                        | 60                             | Y                                                                                                       | Y  | Y  | Y | 1.48                             | 0.01 | 19 | Y                                                                                                            | Y |   |   |                         |  |  |                |  |  |
|                                           | 3/4"              | Zo-e-shield 5 Extreme          | 0.24    | 0.18                        | 0.38                        | 45                             | Y                                                                                                       | Y  | Y  | Y | 1.36                             | 0.01 | 21 | Y                                                                                                            | Y | Y |   |                         |  |  |                |  |  |
|                                           | 3/4"              | Zo-e-shield 5 Extreme w/ Argon | 0.22    | 0.17                        | 0.38                        | 49                             | Y                                                                                                       | Y  | Y  | Y | 1.25                             | 0.01 | 22 | Y                                                                                                            | Y | Y |   |                         |  |  |                |  |  |
|                                           | 3/4"              | Zo-e-shield 6                  | 0.33    | 0.19                        | 0.41                        | 54                             |                                                                                                         |    | Y  | Y | 1.87                             | 0.01 | 10 |                                                                                                              |   |   |   |                         |  |  |                |  |  |
|                                           | 3/4"              | Zo-e-shield 6 w/ Argon         | 0.28    | 0.18                        | 0.41                        | 58                             | Y                                                                                                       | Y  | Y  | Y | 1.59                             | 0.01 | 16 | Y                                                                                                            | Y |   |   |                         |  |  |                |  |  |
|                                           | 1"                | Zo-e-shield 7                  | 0.24    | 0.17                        | 0.33                        | 66                             | Y                                                                                                       | Y  | Y  | Y | 1.36                             | 0.01 | 20 | Y                                                                                                            | Y | Y |   |                         |  |  |                |  |  |
|                                           | 1"                | Zo-e-shield 7 w/ Argon         | 0.20    | 0.17                        | 0.33                        | 70                             | Y                                                                                                       | Y  | Y  | Y | 1.14                             | 0.01 | 25 | Y                                                                                                            | Y | Y | Y |                         |  |  |                |  |  |

<sup>a</sup> Total Unit calculations are derived from computer simulations that are then verified by 3rd party testing in accordance with NFRC 100-04.

| US Qualification Criteria                                                                                 | Climate Zone  | U-Factor | *SHGC  |
|-----------------------------------------------------------------------------------------------------------|---------------|----------|--------|
| <br>As of January 2010 | Northern      | <=0.30   | Any    |
|                                                                                                           |               | <=0.31   | >=0.35 |
|                                                                                                           |               | <=0.32   | >=0.40 |
|                                                                                                           | North-Central | <=0.32   | <=0.40 |
|                                                                                                           | South-Central | <=0.35   | <=0.30 |
|                                                                                                           | Southern      | <=0.60   | <=0.27 |

\* SHGC = Solar Heat Gain Coefficient