



## SILVER LINE® WINDOW AND DOOR NFRC/ENERGY STAR® INFORMATION

This document provides NFRC certified U-Factor and Solar Heat Gain Coefficient (SHGC) and Visible Transmittance (VT) values for Silver Line® products along with the corresponding ENERGY STAR® Version 6.0 climate zones in which the product and glass type are certified.



These products are rated, certified and labeled by the National Fenestration Rating Council® (NFRC) - a non-profit organization that provides fair, accurate and credible energy performance ratings for windows and doors.



Many of our products meet the stringent energy efficiency certification criteria set by the U.S. Environmental Protection Agency and the U.S. Department of Energy. The certification criteria is based on the heat gain and loss of each product in various regions of the country. Check the Silver Line product performance available at [www.silverlinewindows.com](http://www.silverlinewindows.com) for units that are ENERGY STAR certified.

United States ENERGY STAR® Climate Zone Criteria



| Windows       |                       |                   |                               |
|---------------|-----------------------|-------------------|-------------------------------|
| Climate Zone  | U-Factor <sup>1</sup> | SHGC <sup>2</sup> |                               |
| 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            |                               |

Air Leakage ≤ 0.3 cfm/ft<sup>2</sup>

<sup>1</sup> Btu/h ft<sup>2</sup> °F

<sup>2</sup> Solar Heat Gain Coefficient

\* The effective date for the Northern Zone prescriptive and equivalent energy performance criteria for windows is January 1, 2016.

| Doors         |                       |                           |        |
|---------------|-----------------------|---------------------------|--------|
| Glazing Level | U-Factor <sup>1</sup> | SHGC <sup>2</sup>         |        |
| Opaque        | ≤ 0.17                | No Rating                 |        |
| ≤ ½-Lite      | ≤ 0.25                | ≤ 0.25                    |        |
| > ½-Lite      | ≤ 0.30                | Northern                  | ≤ 0.40 |
|               |                       | North-Central             |        |
|               |                       | Southern<br>South-Central | ≤ 0.25 |

Air Leakage for Sliding Doors ≤ 0.3 cfm/ft<sup>2</sup>  
Air Leakage for Swinging Doors ≤ 0.5 cfm/ft<sup>2</sup>

<sup>1</sup> U-Factor defines the amount of heat loss through the total unit in BTU/hr\*ft<sup>2</sup>\*°F, metric in W/m<sup>2</sup>\*K. The lower the value, the less the heat is lost through the entire product.

<sup>2</sup> Solar Heat Gain Coefficient (SHGC) defines the fraction of solar radiation admitted through the glass both directly transmitted and absorbed and subsequently released inward. The lower the value, the less heat is transmitted through the product.

<sup>3</sup> Visible Transmittance (VT) measures how much light comes through a product (glass and frame). The higher the value, from 0 to 1, the more daylight the product lets in over the product's total unit area. Visible Transmittance is measured over the 380 to 760 nanometer portion of the solar spectrum.

NFRC ratings are based on modeling by a third party agency as validated by an independent test lab in compliance with NFRC program and procedural requirements.

This data is accurate as of January 31, 2022. Due to ongoing product changes, updated test results or new industry standards or requirements, this data may change over time. Due to variations in dealer and distributor inventory levels, products that were manufactured before January 31, 2022 that were designed, tested and labeled with different NFRC values may still be available. Check the labels on the product packaging to confirm NFRC values. Ratings are for sizes specified by NFRC for testing and certification. Ratings may vary depending on use of tempered glass, different grille options, glass for high altitude, etc.

| Silver Line Product Series | Silver Line Product Type  | Glass Type/ Infill | Glass Thickness | Spacer     | NFRC Certified Products Directory Number | No Grilles |       |      |                      |    |           |       |           | With Grilles |       |      |                      |    |    |       |   |
|----------------------------|---|--------------------|-----------------|------------|--|------------|-------|------|----------------------|----|-----------|-------|-----------|--------------|-------|------|----------------------|----|----|-------|---|
|                            |   |                    |                 |            |  | U-Factor1  | SHGC2 | VT3  | US ENERGY STAR v 6.0 |    |           |       | Spacer    | U-Factor1    | SHGC2 | VT3  | US ENERGY STAR v 6.0 |    |    |       |   |
|                            |   |                    |                 |            |  |            |       |      | North                | NC | SC        | South |           |              |       |      | North                | NC | SC | South |   |
| V3 Series                  | Double-Hung Nailing Flange Frame with optional J-Channel                  | Low-E/Air          | 2.2mm           | Intercept  | SIL-N-33                                 | 0.33       | 0.30  | 0.55 | -                    | -  | -         | -     | Intercept | 0.33         | 0.27  | 0.49 | -                    | -  | -  | -     |   |
|                            |   |                    | 3.0mm           | Intercept  |  | 0.33       | 0.30  | 0.54 | -                    | -  | -         | -     | Intercept | 0.33         | 0.27  | 0.48 | -                    | -  | -  | -     |   |
|                            |   | Low-E/Argon        | 2.2mm           | Intercept  |  | 0.30       | 0.30  | 0.55 | -                    | NC | -         | -     | Intercept | 0.30         | 0.27  | 0.49 | -                    | NC | -  | -     | - |
|                            |   |                    | 3.0mm           | Intercept  |  | 0.29       | 0.30  | 0.54 | -                    | NC | -         | -     | Intercept | 0.29         | 0.27  | 0.48 | -                    | NC | -  | -     | - |
|                            |   | Low-E PS/Air       | 2.2mm           | Intercept  |  | 0.33       | 0.45  | 0.55 | -                    | -  | -         | -     | Intercept | 0.33         | 0.40  | 0.49 | -                    | -  | -  | -     | - |
|                            |   |                    | 3.0mm           | Intercept  |  | 0.33       | 0.44  | 0.55 | -                    | -  | -         | -     | Intercept | 0.33         | 0.40  | 0.49 | -                    | -  | -  | -     | - |
|                            |   | Low-E PS/Argon     | 2.2mm           | Intercept  |  | 0.30       | 0.45  | 0.55 | N                    | -  | -         | -     | Intercept | 0.30         | 0.41  | 0.49 | -                    | -  | -  | -     | - |
|                            |   |                    | 2.2mm           | Intercept* |  | 0.30       | 0.45  | 0.55 | N                    | -  | -         | -     | SS        | 0.29         | 0.41  | 0.49 | N                    | -  | -  | -     | - |
|                            |   |                    | 3.0mm           | Intercept  |  | 0.30       | 0.45  | 0.55 | N                    | -  | -         | -     | Intercept | 0.30         | 0.40  | 0.49 | -                    | NC | -  | -     | - |
|                            |   |                    | 3.0mm           | Intercept* |  | 0.30       | 0.45  | 0.55 | N                    | -  | -         | -     | SS        | 0.28         | 0.40  | 0.49 | N                    | NC | -  | -     | - |
|                            |   | Low-E2+ PS/Air     | 2.2mm           | Intercept  |  | 0.28       | 0.36  | 0.54 | N                    | NC | -         | -     | Intercept | 0.28         | 0.32  | 0.48 | N                    | NC | -  | -     | - |
|                            |   |                    | 3.0mm           | Intercept  |  | 0.28       | 0.36  | 0.53 | N                    | NC | -         | -     | Intercept | 0.28         | 0.32  | 0.48 | N                    | NC | -  | -     | - |
|                            |   | Low-E2+ PS/Argon   | 2.2mm           | Intercept  |  | 0.26       | 0.36  | 0.54 | N                    | NC | -         | -     | Intercept | 0.26         | 0.32  | 0.48 | N                    | NC | -  | -     | - |
|                            |   |                    | 3.0mm           | Intercept  |  | 0.26       | 0.35  | 0.53 | N                    | NC | -         | -     | Intercept | 0.26         | 0.32  | 0.48 | N                    | NC | -  | -     | - |
|                            |   | Low-E SC/Air       | 2.2mm           | Intercept  |  | 0.33       | 0.22  | 0.43 | -                    | -  | -         | S     | Intercept | 0.33         | 0.20  | 0.38 | -                    | -  | -  | -     | S |
|                            |   |                    | 3.0mm           | Intercept  |  | 0.33       | 0.22  | 0.43 | -                    | -  | -         | S     | Intercept | 0.33         | 0.20  | 0.38 | -                    | -  | -  | -     | S |
|                            |   | Low-E SC/Argon     | 2.2mm           | Intercept  |  | 0.30       | 0.22  | 0.43 | -                    | NC | SC        | S     | Intercept | 0.30         | 0.20  | 0.38 | -                    | NC | SC | S     | S |
|                            |   |                    | 3.0mm           | Intercept  |  | 0.29       | 0.22  | 0.43 | -                    | NC | SC        | S     | Intercept | 0.29         | 0.20  | 0.38 | -                    | NC | SC | S     | S |
|                            | Double-Hung Picture Nailing Flange Frame with optional J-Channel          | Low-E/Air          | 3.0mm           | Intercept  | SIL-N-67                                 | 0.30       | 0.30  | 0.57 | -                    | NC | -         | -     | Intercept | 0.30         | 0.27  | 0.51 | -                    | NC | -  | -     |   |
|                            |   |                    | 4.0mm           | Intercept  |  | 0.30       | 0.30  | 0.57 | -                    | NC | -         | -     | Intercept | 0.30         | 0.27  | 0.51 | -                    | NC | -  | -     |   |
|                            |   | Low-E/Argon        | 3.0mm           | Intercept  |  | 0.26       | 0.30  | 0.57 | N                    | NC | -         | -     | Intercept | 0.26         | 0.27  | 0.51 | N                    | NC | -  | -     |   |
|                            |   |                    | 4.0mm           | Intercept  |  | 0.26       | 0.30  | 0.57 | N                    | NC | -         | -     | Intercept | 0.26         | 0.27  | 0.51 | N                    | NC | -  | -     |   |
|                            |   | Low-E PS/Air       | 3.0mm           | Intercept  |  | 0.30       | 0.47  | 0.59 | N                    | -  | -         | -     | Intercept | 0.30         | 0.42  | 0.52 | N                    | -  | -  | -     |   |
|                            |   |                    | 4.0mm           | Intercept  |  | 0.30       | 0.46  | 0.58 | N                    | -  | -         | -     | Intercept | 0.30         | 0.41  | 0.52 | -                    | -  | -  | -     |   |
|                            |   | Low-E PS/Argon     | 3.0mm           | Intercept  |  | 0.26       | 0.47  | 0.59 | N                    | -  | -         | -     | Intercept | 0.26         | 0.42  | 0.52 | N                    | -  | -  | -     |   |
|                            |   |                    | 4.0mm           | Intercept  |  | 0.26       | 0.46  | 0.58 | N                    | -  | -         | -     | Intercept | 0.26         | 0.42  | 0.52 | N                    | -  | -  | -     |   |
|                            |   | Low-E2+ PS/Air     | 3.0mm           | Intercept  |  | 0.26       | 0.39  | 0.59 | N                    | NC | -         | -     | Intercept | 0.26         | 0.35  | 0.53 | N                    | NC | -  | -     |   |
|                            |   |                    | 4.0mm           | Intercept  |  | 0.26       | 0.38  | 0.58 | N                    | NC | -         | -     | Intercept | 0.26         | 0.35  | 0.52 | N                    | NC | -  | -     |   |
|                            |   | Low-E2+ PS/Argon   | 3.0mm           | Intercept  |  | 0.23       | 0.39  | 0.59 | N                    | NC | -         | -     | Intercept | 0.23         | 0.35  | 0.53 | N                    | NC | -  | -     |   |
|                            |   |                    | 4.0mm           | Intercept  |  | 0.23       | 0.38  | 0.58 | N                    | NC | -         | -     | Intercept | 0.23         | 0.35  | 0.52 | N                    | NC | -  | -     |   |
|                            | Low-E SC/Air  | 3.0mm              | Intercept       | 0.29       | 0.23                                     | 0.45       | -     | NC   | SC                   | S  | Intercept | 0.29  | 0.21      | 0.40         | -     | NC   | SC                   | S  |    |       |   |
|                            |   | 4.0mm              | Intercept       | 0.29       | 0.23                                     | 0.45       | -     | NC   | SC                   | S  | Intercept | 0.29  | 0.21      | 0.40         | -     | NC   | SC                   | S  |    |       |   |
|                            | Low-E SC/Argon  | 3.0mm              | Intercept       | 0.26       | 0.23                                     | 0.45       | N     | NC   | SC                   | S  | Intercept | 0.26  | 0.21      | 0.40         | N     | NC   | SC                   | S  |    |       |   |
|                            |   | 4.0mm              | Intercept       | 0.25       | 0.23                                     | 0.45       | N     | NC   | SC                   | S  | Intercept | 0.25  | 0.21      | 0.40         | N     | NC   | SC                   | S  |    |       |   |
|                            | Double-Hung Specialty Shapes Nailing Flange Frame with optional J-Channel | Low-E/Air          | 3.0mm           | SS         | SIL-N-67                                 | 0.29       | 0.30  | 0.57 | -                    | NC | -         | -     | SS        | 0.29         | 0.28  | 0.51 | -                    | NC | -  | -     |   |
|                            |   |                    | 4.0mm           | SS         |  | 0.29       | 0.30  | 0.57 | -                    | NC | -         | -     | SS        | 0.29         | 0.27  | 0.51 | -                    | NC | -  | -     |   |
|                            |   | Low-E/Argon        | 3.0mm           | SS         |  | 0.25       | 0.30  | 0.57 | N                    | NC | -         | -     | SS        | 0.25         | 0.27  | 0.51 | N                    | NC | -  | -     |   |
|                            |   |                    | 4.0mm           | SS         |  | 0.25       | 0.30  | 0.57 | N                    | NC | -         | -     | SS        | 0.25         | 0.27  | 0.51 | N                    | NC | -  | -     |   |
|                            |   | Low-E PS/Air       | 3.0mm           | SS         |  | 0.29       | 0.47  | 0.59 | N                    | -  | -         | -     | SS        | 0.29         | 0.42  | 0.52 | N                    | -  | -  | -     |   |
|                            |   |                    | 4.0mm           | SS         |  | 0.30       | 0.46  | 0.58 | N                    | -  | -         | -     | SS        | 0.30         | 0.41  | 0.52 | -                    | -  | -  | -     |   |
|                            |   | Low-E PS/Argon     | 3.0mm           | SS         |  | 0.25       | 0.47  | 0.59 | N                    | -  | -         | -     | SS        | 0.25         | 0.42  | 0.52 | N                    | -  | -  | -     |   |
|                            |   |                    | 4.0mm           | SS         |  | 0.26       | 0.46  | 0.58 | N                    | -  | -         | -     | SS        | 0.26         | 0.42  | 0.52 | N                    | -  | -  | -     |   |
|                            |   | Low-E2+ PS/Air     | 3.0mm           | SS         |  | 0.25       | 0.39  | 0.59 | N                    | NC | -         | -     | SS        | 0.25         | 0.35  | 0.53 | N                    | NC | -  | -     |   |
|                            |   |                    | 4.0mm           | SS         |  | 0.26       | 0.38  | 0.58 | N                    | NC | -         | -     | SS        | 0.26         | 0.35  | 0.52 | N                    | NC | -  | -     |   |
|                            |   | Low-E2+ PS/Argon   | 3.0mm           | SS         |  | 0.23       | 0.39  | 0.59 | N                    | NC | -         | -     | SS        | 0.23         | 0.35  | 0.53 | N                    | NC | -  | -     |   |
|                            |   |                    | 4.0mm           | SS         |  | 0.23       | 0.38  | 0.58 | N                    | NC | -         | -     | SS        | 0.23         | 0.35  | 0.52 | N                    | NC | -  | -     |   |
|                            | Low-E SC/Air  | 3.0mm              | SS              | 0.29       | 0.23                                     | 0.45       | -     | NC   | SC                   | S  | SS        | 0.29  | 0.21      | 0.40         | -     | NC   | SC                   | S  |    |       |   |
|                            |   | 4.0mm              | SS              | 0.29       | 0.24                                     | 0.45       | -     | NC   | SC                   | S  | SS        | 0.29  | 0.21      | 0.40         | -     | NC   | SC                   | S  |    |       |   |
|                            | Low-E SC/Argon  | 3.0mm              | SS              | 0.25       | 0.23                                     | 0.45       | N     | NC   | SC                   | S  | SS        | 0.25  | 0.21      | 0.40         | N     | NC   | SC                   | S  |    |       |   |
|                            |   | 4.0mm              | SS              | 0.25       | 0.23                                     | 0.45       | N     | NC   | SC                   | S  | SS        | 0.25  | 0.21      | 0.40         | N     | NC   | SC                   | S  |    |       |   |
|                            | Double Hung Insert Frame  | Clear/Air          | 2.2mm           | Intercept  | SIL-N-61                                 | 0.46       | 0.60  | 0.62 | -                    | -  | -         | -     | Intercept | 0.46         | 0.54  | 0.55 | -                    | -  | -  | -     |   |
|                            |   |                    | 3.0mm           | Intercept  |  | 0.46       | 0.59  | 0.61 | -                    | -  | -         | -     | Intercept | 0.46         | 0.53  | 0.54 | -                    | -  | -  | -     |   |
|                            |   | Low-E/Air          | 2.2mm           | Intercept  |  | 0.33       | 0.29  | 0.53 | -                    | -  | -         | -     | Intercept | 0.33         | 0.26  | 0.47 | -                    | -  | -  | -     |   |
|                            |   |                    | 3.0mm           | Intercept  |  | 0.33       | 0.29  | 0.52 | -                    | -  | -         | -     | Intercept | 0.33         | 0.26  | 0.47 | -                    | -  | -  | -     |   |
|                            |   | Low-E/Argon        | 2.2mm           | Intercept  |  | 0.30       | 0.29  | 0.53 | -                    | NC | -         | -     | Intercept | 0.30         | 0.26  | 0.47 | -                    | NC | -  | -     |   |
|                            |   |                    | 3.0mm           | Intercept  |  | 0.30       | 0.29  | 0.52 | -                    | NC | -         | -     | Intercept | 0.30         | 0.26  | 0.47 | -                    | NC | -  | -     |   |
|                            |   | Low-E PS/Air       | 2.2mm           | Intercept  |  | 0.34       | 0.44  | 0.53 | -                    | -  | -         | -     | Intercept | 0.34         | 0.39  | 0.47 | -                    | -  | -  | -     |   |
|                            |   |                    | 3.0mm           | Intercept  |  | 0.33       | 0.43  | 0.53 | -                    | -  | -         | -     | Intercept | 0.33         | 0.39  | 0.47 | -                    | -  | -  | -     |   |
|                            |   | Low-E PS/Argon     | 2.2mm           | Intercept  |  | 0.30       | 0.44  | 0.53 | N                    | -  | -         | -     | SS        | 0.29         | 0.39  | 0.47 | N                    | NC | -  | -     |   |
|                            |   |                    | 3.0mm           | Intercept  |  | 0.30       | 0.43  | 0.53 | N                    | -  | -         | -     | SS        | 0.29         | 0.39  | 0.47 | N                    | NC | -  | -     |   |
|                            |   | Low-E2+ PS/Air     | 2.2mm           | Intercept  |  | 0.29       | 0.35  | 0.52 | -                    | NC | -         | -     | Intercept | 0.29         | 0.31  | 0.46 | -                    | NC | -  | -     |   |
|                            |   |                    | 3.0mm           | Intercept  |  | 0.29       | 0.34  | 0.51 | -                    | NC | -         | -     | Intercept | 0.29         | 0.31  | 0.46 | -                    | NC | -  | -     |   |
|                            |   | Low-E2+ PS/Argon   | 2.2mm           | Intercept  |  | 0.27       | 0.35  | 0.52 | N                    | NC | -         | -     | Intercept | 0.27         | 0.31  | 0.46 | N                    | NC | -  | -     |   |
|                            |   |                    | 3.0mm           | Intercept  |  | 0.27       | 0.34  | 0.51 | N                    | NC | -         | -     | Intercept | 0.27         | 0.31  | 0.46 | N                    | NC | -  | -     |   |
|                            |   | Low-E SC/Air       | 2.2mm           | Intercept  |  | 0.33       | 0.21  | 0.42 | -                    | -  | -         | S     | Intercept | 0.33         | 0.19  | 0.37 | -                    | -  | -  | -     |   |
|                            |   |                    | 3.0mm           | Intercept  |  | 0.33       | 0.21  | 0.41 | -                    | -  | -         | S     | Intercept | 0.33         | 0.19  | 0.37 | -                    | -  | -  | -     |   |
|                            |   | Low-E SC/Argon     | 2.2mm           | Intercept  |  | 0.30       | 0.21  | 0.42 | -                    | NC | SC        | S     | Intercept | 0.30         | 0.19  | 0.37 | -                    | NC | SC | S     |   |
|                            |   |                    | 3.0mm           | Intercept  |  | 0.30       | 0.21  | 0.41 | -                    | NC | SC        | S     | Intercept | 0.30         | 0.19  | 0.37 | -                    | NC | SC | S     |   |

| Silver Line Product Series | Silver Line Product Type                                      | Glass Type/ Infill  | Glass Thickness | Spacer    | NFRC Certified Products Directory Number | No Grilles |          |      |                      |      |    |       |           | With Grilles |           |      |                      |      |    |       |   |   |
|----------------------------|---|---|-----------------|-----------|--|------------|----------|------|----------------------|------|----|-------|-----------|--------------|-----------|------|----------------------|------|----|-------|---|---|
|                            |   |   |                 |           |  | U-Factor1  | SHGC2    | VLT3 | US ENERGY STAR v 6.0 |      |    |       | Spacer    | U-Factor1    | SHGC2     | VLT3 | US ENERGY STAR v 6.0 |      |    |       |   |   |
|                            |   |   |                 |           |  |            |          |      | North                | NC   | SC | South |           |              |           |      | North                | NC   | SC | South |   |   |
| V3 Series                  | Gliding Insert Frame  | Clear/Air   | 2.2mm           | Intercept | SIL-N-10                                 | 0.47       | 0.60     | 0.62 | -                    | -    | -  | -     | Intercept | 0.47         | 0.54      | 0.55 | -                    | -    | -  | -     |   |   |
|                            |   |   | 3.0mm           | Intercept |  | 0.47       | 0.59     | 0.61 | -                    | -    | -  | -     | Intercept | 0.47         | 0.53      | 0.55 | -                    | -    | -  | -     |   |   |
|                            |   | Low-E/Air   | 2.2mm           | Intercept |  | 0.34       | 0.29     | 0.53 | -                    | -    | -  | -     | Intercept | 0.34         | 0.27      | 0.47 | -                    | -    | -  | -     |   |   |
|                            |   |   | 3.0mm           | Intercept |  | 0.34       | 0.29     | 0.52 | -                    | -    | -  | -     | Intercept | 0.34         | 0.26      | 0.47 | -                    | -    | -  | -     |   |   |
|                            |   | Low-E/Argon   | 2.2mm           | Intercept |  | 0.30       | 0.29     | 0.53 | -                    | NC   | -  | -     | Intercept | 0.30         | 0.26      | 0.47 | -                    | NC   | -  | -     |   |   |
|                            |   |   | 3.0mm           | Intercept |  | 0.30       | 0.29     | 0.52 | -                    | NC   | -  | -     | Intercept | 0.30         | 0.26      | 0.47 | -                    | NC   | -  | -     |   |   |
|                            |   | Low-E PS/Air  | 2.2mm           | Intercept |  | 0.34       | 0.44     | 0.54 | -                    | -    | -  | -     | Intercept | 0.34         | 0.39      | 0.48 | -                    | -    | -  | -     |   |   |
|                            |   |   | 3.0mm           | Intercept |  | 0.34       | 0.43     | 0.53 | -                    | -    | -  | -     | Intercept | 0.34         | 0.39      | 0.47 | -                    | -    | -  | -     |   |   |
|                            |   | Low-E PS/Argon  | 2.2mm           | Intercept |  | 0.31       | 0.44     | 0.54 | -                    | -    | -  | -     | Intercept | 0.31         | 0.39      | 0.48 | -                    | -    | -  | -     |   |   |
|                            |   |   | 3.0mm           | Intercept |  | 0.31       | 0.43     | 0.53 | -                    | -    | -  | -     | Intercept | 0.31         | 0.39      | 0.47 | -                    | -    | -  | -     |   |   |
|                            |   | Low-E2+ PS/Air  | 2.2mm           | Intercept |  | 0.29       | 0.35     | 0.52 | -                    | NC   | -  | -     | Intercept | 0.29         | 0.31      | 0.46 | -                    | NC   | -  | -     |   |   |
|                            |   |   | 3.0mm           | Intercept |  | 0.29       | 0.35     | 0.52 | -                    | NC   | -  | -     | Intercept | 0.29         | 0.31      | 0.46 | -                    | NC   | -  | -     |   |   |
|                            |   | Low-E2+ PS/Argon  | 2.2mm           | Intercept |  | 0.27       | 0.35     | 0.52 | N                    | NC   | -  | -     | Intercept | 0.27         | 0.31      | 0.46 | N                    | NC   | -  | -     |   |   |
|                            |   |   | 3.0mm           | Intercept |  | 0.27       | 0.34     | 0.52 | N                    | NC   | -  | -     | Intercept | 0.27         | 0.31      | 0.46 | N                    | NC   | -  | -     |   |   |
|                            |   | Low-E SC/Air  | 2.2mm           | Intercept |  | 0.34       | 0.21     | 0.42 | -                    | -    | -  | S     | Intercept | 0.34         | 0.19      | 0.37 | -                    | -    | -  | S     |   |   |
|                            |   |   | 3.0mm           | Intercept |  | 0.33       | 0.22     | 0.42 | -                    | -    | -  | S     | Intercept | 0.33         | 0.19      | 0.37 | -                    | -    | -  | S     |   |   |
|                            |   | Low-E SC/Argon  | 2.2mm           | Intercept |  | 0.30       | 0.21     | 0.42 | -                    | NC   | SC | S     | Intercept | 0.30         | 0.19      | 0.37 | -                    | NC   | SC | S     |   |   |
|                            |   |   | 3.0mm           | Intercept |  | 0.30       | 0.21     | 0.42 | -                    | NC   | SC | S     | Intercept | 0.30         | 0.19      | 0.37 | -                    | NC   | SC | S     |   |   |
|                            |   | Casement Insert or Nailing Flange Frame with Optional J-Channel   | Clear/Air       | 2.2mm     |  | Intercept  | SIL-N-56 | 0.40 | 0.51                 | 0.52 | -  | -     | -         | -            | Intercept | 0.40 | 0.46                 | 0.47 | -  | -     | - | - |
|                            |   |   |                 | 3.0mm     |  | Intercept  |          | 0.40 | 0.50                 | 0.52 | -  | -     | -         | -            | Intercept | 0.40 | 0.45                 | 0.46 | -  | -     | - | - |
|                            | Low-E/Air   |   | 2.2mm           | Intercept | 0.30                                     | 0.25       |          | 0.44 | -                    | NC   | SC | S     | Intercept | 0.30         | 0.23      | 0.40 | -                    | NC   | SC | S     |   |   |
|                            |   |   | 3.0mm           | Intercept | 0.30                                     | 0.25       |          | 0.44 | -                    | NC   | SC | S     | Intercept | 0.30         | 0.23      | 0.40 | -                    | NC   | SC | S     |   |   |
|                            | Low-E/Argon   |   | 2.2mm           | Intercept | 0.27                                     | 0.25       |          | 0.44 | N                    | NC   | SC | S     | Intercept | 0.27         | 0.23      | 0.40 | N                    | NC   | SC | S     |   |   |
|                            |   |   | 3.0mm           | Intercept | 0.27                                     | 0.25       |          | 0.44 | N                    | NC   | SC | S     | Intercept | 0.27         | 0.23      | 0.40 | N                    | NC   | SC | S     |   |   |
|                            | Low-E PS/Air  |   | 2.2mm           | Intercept | 0.30                                     | 0.37       |          | 0.45 | -                    | NC   | -  | -     | Intercept | 0.30         | 0.33      | 0.41 | -                    | NC   | -  | -     |   |   |
|                            |   |   | 3.0mm           | Intercept | 0.30                                     | 0.36       |          | 0.45 | -                    | NC   | -  | -     | Intercept | 0.30         | 0.33      | 0.40 | -                    | NC   | -  | -     |   |   |
|                            | Low-E PS/Argon  |   | 2.2mm           | Intercept | 0.27                                     | 0.37       |          | 0.45 | N                    | NC   | -  | -     | Intercept | 0.27         | 0.34      | 0.41 | N                    | NC   | -  | -     |   |   |
|                            |   |   | 3.0mm           | Intercept | 0.27                                     | 0.37       |          | 0.45 | N                    | NC   | -  | -     | Intercept | 0.27         | 0.33      | 0.40 | N                    | NC   | -  | -     |   |   |
|                            | Low-E2+ PS/Air  |   | 2.2mm           | Intercept | 0.27                                     | 0.31       |          | 0.45 | N                    | NC   | -  | -     | Intercept | 0.27         | 0.28      | 0.41 | N                    | NC   | -  | -     |   |   |
|                            |   |   | 3.0mm           | Intercept | 0.27                                     | 0.30       |          | 0.45 | N                    | NC   | -  | -     | Intercept | 0.27         | 0.28      | 0.40 | N                    | NC   | -  | -     |   |   |
|                            | Low-E2+ PS/Argon  |   | 2.2mm           | Intercept | 0.25                                     | 0.30       |          | 0.45 | N                    | NC   | -  | -     | Intercept | 0.25         | 0.28      | 0.41 | N                    | NC   | -  | -     |   |   |
|                            |   |   | 3.0mm           | Intercept | 0.25                                     | 0.30       |          | 0.45 | N                    | NC   | -  | -     | Intercept | 0.25         | 0.27      | 0.40 | N                    | NC   | -  | -     |   |   |
|                            | Low-E SC/Air  |   | 2.2mm           | Intercept | 0.30                                     | 0.18       |          | 0.35 | -                    | NC   | SC | S     | Intercept | 0.30         | 0.17      | 0.32 | -                    | NC   | SC | S     |   |   |
|                            |   |   | 3.0mm           | Intercept | 0.29                                     | 0.18       |          | 0.35 | -                    | NC   | SC | S     | Intercept | 0.29         | 0.17      | 0.31 | -                    | NC   | SC | S     |   |   |
|                            | Low-E SC/Argon  |   | 2.2mm           | Intercept | 0.27                                     | 0.18       |          | 0.35 | N                    | NC   | SC | S     | Intercept | 0.27         | 0.17      | 0.32 | N                    | NC   | SC | S     |   |   |
|                            |   |   | 3.0mm           | Intercept | 0.27                                     | 0.18       |          | 0.35 | N                    | NC   | SC | S     | Intercept | 0.27         | 0.17      | 0.31 | N                    | NC   | SC | S     |   |   |
|                            | Awning Insert or Nailing Flange Frame with optional J-Channel |   | Clear/Air       | 2.2mm     | Intercept                                | SIL-N-57   |          | 0.42 | 0.51                 | 0.52 | -  | -     | -         | -            | Intercept | 0.42 | 0.46                 | 0.47 | -  | -     | - | - |
|                            |   |   |                 | 3.0mm     | Intercept                                |            |          | 0.42 | 0.50                 | 0.52 | -  | -     | -         | -            | Intercept | 0.42 | 0.45                 | 0.46 | -  | -     | - | - |
|                            |   | Low-E/Air   | 2.2mm           | Intercept | 0.30                                     |            | 0.25     | 0.44 | -                    | NC   | SC | S     | Intercept | 0.30         | 0.23      | 0.40 | -                    | NC   | SC | S     |   |   |
|                            |   |   | 3.0mm           | Intercept | 0.30                                     |            | 0.25     | 0.44 | -                    | NC   | SC | S     | Intercept | 0.30         | 0.23      | 0.40 | -                    | NC   | SC | S     |   |   |
|                            |   | Low-E/Argon   | 2.2mm           | Intercept | 0.28                                     |            | 0.25     | 0.44 | -                    | NC   | SC | S     | Intercept | 0.28         | 0.23      | 0.40 | -                    | NC   | SC | S     |   |   |
|                            |   |   | 3.0mm           | Intercept | 0.28                                     |            | 0.25     | 0.44 | -                    | NC   | SC | S     | Intercept | 0.28         | 0.23      | 0.40 | -                    | NC   | SC | S     |   |   |
|                            |   | Low-E PS/Air  | 2.2mm           | Intercept | 0.31                                     |            | 0.37     | 0.45 | -                    | -    | -  | -     | Intercept | 0.31         | 0.33      | 0.41 | -                    | -    | -  | -     |   |   |
|                            |   |   | 3.0mm           | Intercept | 0.31                                     |            | 0.36     | 0.45 | -                    | -    | -  | -     | Intercept | 0.31         | 0.33      | 0.40 | -                    | -    | -  | -     |   |   |
|                            |   | Low-E PS/Argon  | 2.2mm           | Intercept | 0.28                                     |            | 0.37     | 0.45 | N                    | NC   | -  | -     | Intercept | 0.28         | 0.34      | 0.41 | N                    | NC   | -  | -     |   |   |
|                            |   |   | 3.0mm           | Intercept | 0.28                                     |            | 0.37     | 0.45 | N                    | NC   | -  | -     | Intercept | 0.28         | 0.33      | 0.40 | N                    | NC   | -  | -     |   |   |
|                            |   | Low-E2+ PS/Air  | 2.2mm           | Intercept | 0.28                                     |            | 0.31     | 0.45 | -                    | NC   | -  | -     | Intercept | 0.28         | 0.28      | 0.41 | -                    | NC   | -  | -     |   |   |
|                            |   |   | 3.0mm           | Intercept | 0.28                                     |            | 0.30     | 0.45 | -                    | NC   | -  | -     | Intercept | 0.28         | 0.28      | 0.40 | -                    | NC   | -  | -     |   |   |
|                            |   | Low-E2+ PS/Argon  | 2.2mm           | Intercept | 0.26                                     |            | 0.31     | 0.45 | N                    | NC   | -  | -     | Intercept | 0.26         | 0.28      | 0.41 | N                    | NC   | -  | -     |   |   |
|                            |   |   | 3.0mm           | Intercept | 0.26                                     |            | 0.30     | 0.45 | N                    | NC   | -  | -     | Intercept | 0.26         | 0.27      | 0.40 | N                    | NC   | -  | -     |   |   |
|                            |   | Low-E SC/Air  | 2.2mm           | Intercept | 0.30                                     |            | 0.18     | 0.35 | -                    | NC   | SC | S     | Intercept | 0.30         | 0.17      | 0.32 | -                    | NC   | SC | S     |   |   |
|                            |   |   | 3.0mm           | Intercept | 0.30                                     |            | 0.18     | 0.35 | -                    | NC   | SC | S     | Intercept | 0.30         | 0.17      | 0.31 | -                    | NC   | SC | S     |   |   |
|                            |   | Low-E SC/Argon  | 2.2mm           | Intercept | 0.27                                     |            | 0.18     | 0.35 | N                    | NC   | SC | S     | Intercept | 0.27         | 0.17      | 0.32 | N                    | NC   | SC | S     |   |   |
|                            |   |   | 3.0mm           | Intercept | 0.27                                     |            | 0.18     | 0.35 | N                    | NC   | SC | S     | Intercept | 0.27         | 0.17      | 0.31 | N                    | NC   | SC | S     |   |   |
|                            |   | Casement Picture Insert or Nailing Flange Frame with optional J-Channel and/or Double-Hung Picture Insert Frame | Clear/Air       | 3.0mm     | Intercept                                |            | SIL-N-55 | 0.46 | 0.66                 | 0.69 | -  | -     | -         | -            | Intercept | 0.46 | 0.59                 | 0.62 | -  | -     | - | - |
|                            |   |   |                 | 4.0mm     | Intercept                                |            |          | 0.46 | 0.64                 | 0.69 | -  | -     | -         | -            | Intercept | 0.46 | 0.58                 | 0.62 | -  | -     | - | - |
|                            | Low-E/Air   |   | 3.0mm           | Intercept | 0.31                                     | 0.33       |          | 0.59 | -                    | -    | -  | -     | Intercept | 0.31         | 0.30      | 0.53 | -                    | -    | -  | -     |   |   |
|                            |   |   | 4.0mm           | Intercept | 0.31                                     | 0.33       |          | 0.59 | -                    | -    | -  | -     | Intercept | 0.31         | 0.30      | 0.53 | -                    | -    | -  | -     |   |   |
|                            | Low-E/Argon   |   | 3.0mm           | Intercept | 0.27                                     | 0.33       |          | 0.59 | N                    | NC   | -  | -     | Intercept | 0.27         | 0.30      | 0.53 | N                    | NC   | -  | -     |   |   |
|                            |   |   | 4.0mm           | Intercept | 0.27                                     | 0.33       |          | 0.59 | N                    | NC   | -  | -     | Intercept | 0.27         | 0.29      | 0.53 | N                    | NC   | -  | -     |   |   |
|                            | Low-E PS/Air  |   | 3.0mm           | Intercept | 0.31                                     | 0.48       |          | 0.60 | -                    | -    | -  | -     | Intercept | 0.31         | 0.43      | 0.54 | -                    | -    | -  | -     |   |   |
|                            |   |   | 4.0mm           | Intercept | 0.31                                     | 0.47       |          | 0.59 | -                    | -    | -  | -     | Intercept | 0.31         | 0.42      | 0.53 | -                    | -    | -  | -     |   |   |
|                            | Low-E PS/Argon  |   | 3.0mm           | Intercept | 0.27                                     | 0.48       |          | 0.60 | N                    | -    | -  | -     | Intercept | 0.27         | 0.44      | 0.54 | N                    | -    | -  | -     |   |   |
|                            |   |   | 4.0mm           | Intercept | 0.27                                     | 0.47       |          | 0.59 | N                    | -    | -  | -     | Intercept | 0.27         | 0.43      | 0.53 | N                    | -    | -  | -     |   |   |
|                            | Low-E2+ PS/Air  |   | 3.0mm           | Intercept | 0.27                                     | 0.40       |          | 0.60 | N                    | NC   | -  | -     | Intercept | 0.27         | 0.36      | 0.54 | N                    | NC   | -  | -     |   |   |
|                            |   |   | 4.0mm           | Intercept | 0.27                                     | 0.39       |          | 0.60 | N                    | NC   | -  | -     | Intercept | 0.27         | 0.36      | 0.54 | N                    | NC   | -  | -     |   |   |
|                            | Low-E2+ PS/Argon  |   | 3.0mm           | Intercept | 0.24                                     | 0.40       |          | 0.60 | N                    | NC   | -  | -     | Intercept | 0.24         | 0.36      | 0.54 | N                    | NC   | -  | -     |   |   |
|                            |   |   | 4.0mm           | Intercept | 0.24                                     | 0.39       |          | 0.60 | N                    | NC   | -  | -     | Intercept | 0.24         | 0.36      | 0.54 | N                    | NC   | -  | -     |   |   |
|                            | Low-E SC/Air  |   | 3.0mm           | Intercept | 0.31                                     | 0.24       |          | 0.47 | -                    | -    | -  | S     | Intercept | 0.31         | 0.22      | 0.42 | -                    | -    | -  | S     |   |   |
|                            |   |   | 4.0mm           | Intercept | 0.31                                     | 0.24       |          | 0.46 | -                    | -    | -  | S     | Intercept | 0.31         | 0.22      | 0.42 | -                    | -    | -  | S     |   |   |
|                            | Low-E SC/Argon  |   | 3.0mm           | Intercept | 0.27                                     | 0.24       |          | 0.47 | N                    | NC   | SC | S     | Intercept | 0.27         | 0.22      | 0.42 | N                    | NC   | SC | S     |   |   |
|                            |   |   | 4.0mm           | Intercept | 0.27                                     | 0.24       |          | 0.46 | N                    | NC   | SC | S     | Intercept | 0.27         | 0.22      | 0.42 | N                    | NC   | SC | S     |   |   |

| Silver Line Product Series                                | Silver Line Product Type  | Glass Type/ Infill | Glass Thickness | Spacer    | NFRC Certified Products Directory Number | No Grilles |       |      |                      |    |    |           |           | With Grilles |       |      |                      |    |    |       |   |
|---|---|--------------------|-----------------|-----------|--|------------|-------|------|----------------------|----|----|-----------|-----------|--------------|-------|------|----------------------|----|----|-------|---|
|   |   |                    |                 |           |  | U-Factor1  | SHGC2 | VT3  | US ENERGY STAR v 6.0 |    |    |           | Spacer    | U-Factor1    | SHGC2 | VT3  | US ENERGY STAR v 6.0 |    |    |       |   |
|   |   |                    |                 |           |  |            |       |      | North                | NC | SC | South     |           |              |       |      | North                | NC | SC | South |   |
| V3 Series   | Casement Specialty Shapes Insert or Nailing Flange Frame with optional J-Channel and/or Double-Hung Specialty Shapes Insert Frame | Clear/Air          | 3.0mm           | SS        | SIL-N-55                                 | 0.45       | 0.66  | 0.69 | -                    | -  | -  | -         | SS        | 0.45         | 0.59  | 0.62 | -                    | -  | -  | -     |   |
|   |   |                    | 4.0mm           | SS        |  | 0.45       | 0.64  | 0.69 | -                    | -  | -  | -         | SS        | 0.46         | 0.58  | 0.62 | -                    | -  | -  | -     |   |
|   |   | Low-E/Air          | 3.0mm           | SS        |  | 0.30       | 0.33  | 0.59 | -                    | NC | -  | -         | SS        | 0.30         | 0.30  | 0.53 | -                    | NC | -  | -     | - |
|   |   |                    | 4.0mm           | SS        |  | 0.30       | 0.33  | 0.59 | -                    | NC | -  | -         | SS        | 0.32         | 0.30  | 0.53 | -                    | -  | -  | -     |   |
|   |   | Low-E/Argon        | 3.0mm           | SS        |  | 0.26       | 0.33  | 0.59 | N                    | NC | -  | -         | SS        | 0.26         | 0.30  | 0.53 | N                    | NC | -  | -     | - |
|   |   |                    | 4.0mm           | SS        |  | 0.26       | 0.33  | 0.59 | N                    | NC | -  | -         | SS        | 0.27         | 0.29  | 0.53 | N                    | NC | -  | -     | - |
|   |   | Low-E PS/Air       | 3.0mm           | SS        |  | 0.30       | 0.48  | 0.60 | N                    | -  | -  | -         | SS        | 0.30         | 0.43  | 0.54 | N                    | -  | -  | -     | - |
|   |   |                    | 4.0mm           | SS        |  | 0.31       | 0.47  | 0.59 | -                    | -  | -  | -         | SS        | 0.32         | 0.42  | 0.53 | -                    | -  | -  | -     |   |
|   |   | Low-E PS/Argon     | 3.0mm           | SS        |  | 0.26       | 0.48  | 0.60 | N                    | -  | -  | -         | SS        | 0.26         | 0.44  | 0.54 | N                    | -  | -  | -     | - |
|   |   |                    | 4.0mm           | SS        |  | 0.26       | 0.47  | 0.59 | N                    | -  | -  | -         | SS        | 0.27         | 0.43  | 0.53 | N                    | -  | -  | -     | - |
|   |   | Low-E2+ PS/Air     | 3.0mm           | SS        |  | 0.26       | 0.40  | 0.60 | N                    | NC | -  | -         | SS        | 0.26         | 0.36  | 0.54 | N                    | NC | -  | -     | - |
|   |   |                    | 4.0mm           | SS        |  | 0.27       | 0.40  | 0.60 | N                    | NC | -  | -         | SS        | 0.28         | 0.36  | 0.54 | N                    | NC | -  | -     | - |
|   |   | Low-E2+ PS/Argon   | 3.0mm           | SS        |  | 0.23       | 0.40  | 0.60 | N                    | NC | -  | -         | SS        | 0.23         | 0.36  | 0.54 | N                    | NC | -  | -     | - |
|   |   |                    | 4.0mm           | SS        |  | 0.24       | 0.39  | 0.60 | N                    | NC | -  | -         | SS        | 0.24         | 0.36  | 0.54 | N                    | NC | -  | -     | - |
|   |   | Low-E SC/Air       | 3.0mm           | SS        |  | 0.30       | 0.24  | 0.47 | -                    | NC | SC | S         | SS        | 0.30         | 0.22  | 0.42 | -                    | NC | SC | S     |   |
|   |   |                    | 4.0mm           | SS        |  | 0.30       | 0.24  | 0.46 | -                    | NC | SC | S         | SS        | 0.31         | 0.22  | 0.42 | -                    | -  | -  | -     |   |
|   |   | Low-E SC/Argon     | 3.0mm           | SS        |  | 0.26       | 0.24  | 0.47 | N                    | NC | SC | S         | SS        | 0.26         | 0.22  | 0.42 | N                    | NC | SC | S     |   |
|   |   |                    | 4.0mm           | SS        |  | 0.26       | 0.24  | 0.46 | N                    | NC | SC | S         | SS        | 0.27         | 0.22  | 0.42 | N                    | NC | SC | S     |   |
|   | Gliding Patio Door Nailing Flange with J-Channel Frame  | Clear/Air          | 3.0mm Temp      | Intercept | SIL-N-36                                 | 0.46       | 0.64  | 0.66 | -                    | -  | -  | -         | Intercept | 0.46         | 0.56  | 0.58 | -                    | -  | -  | -     |   |
|   |   |                    | 4.0mm Temp      | Intercept |  | 0.46       | 0.63  | 0.66 | -                    | -  | -  | -         | Intercept | 0.46         | 0.55  | 0.58 | -                    | -  | -  | -     |   |
|   |   | Low-E/Air          | 3.0mm Temp      | Intercept |  | 0.32       | 0.32  | 0.57 | -                    | -  | -  | -         | Intercept | 0.32         | 0.28  | 0.50 | -                    | -  | -  | -     |   |
|   |   |                    | 4.0mm Temp      | Intercept |  | 0.32       | 0.31  | 0.56 | -                    | -  | -  | -         | Intercept | 0.32         | 0.28  | 0.49 | -                    | -  | -  | -     |   |
|   |   | Low-E/Argon        | 3.0mm Temp      | Intercept |  | 0.28       | 0.31  | 0.57 | N                    | NC | -  | -         | Intercept | 0.28         | 0.28  | 0.50 | N                    | NC | -  | -     |   |
|   |   |                    | 4.0mm Temp      | Intercept |  | 0.28       | 0.31  | 0.56 | N                    | NC | -  | -         | Intercept | 0.28         | 0.28  | 0.49 | N                    | NC | -  | -     |   |
|   |   | Low-E PS/Air       | 3.0mm Temp      | Intercept |  | 0.32       | 0.46  | 0.57 | -                    | -  | -  | -         | Intercept | 0.32         | 0.41  | 0.50 | -                    | -  | -  | -     |   |
|   |   |                    | 4.0mm Temp      | Intercept |  | 0.33       | 0.46  | 0.57 | -                    | -  | -  | -         | Intercept | 0.33         | 0.40  | 0.50 | -                    | -  | -  | -     |   |
|   |   | Low-E PS/Argon     | 3.0mm Temp      | Intercept |  | 0.28       | 0.47  | 0.57 | -                    | -  | -  | -         | Intercept | 0.28         | 0.41  | 0.50 | -                    | -  | -  | -     |   |
|   |   |                    | 4.0mm Temp      | Intercept |  | 0.28       | 0.46  | 0.57 | -                    | -  | -  | -         | Intercept | 0.28         | 0.41  | 0.50 | -                    | -  | -  | -     |   |
|   |   | Low-E2+ PS/Air     | 3.0mm Temp      | Intercept |  | 0.27       | 0.37  | 0.56 | N                    | NC | -  | -         | Intercept | 0.27         | 0.33  | 0.49 | N                    | NC | -  | -     |   |
|   |   |                    | 4.0mm Temp      | Intercept |  | 0.28       | 0.37  | 0.55 | N                    | NC | -  | -         | Intercept | 0.28         | 0.33  | 0.49 | N                    | NC | -  | -     |   |
|   |   | Low-E2+ PS/Argon   | 3.0mm Temp      | Intercept |  | 0.24       | 0.37  | 0.55 | N                    | NC | -  | -         | Intercept | 0.24         | 0.33  | 0.49 | N                    | NC | -  | -     |   |
|   |   |                    | 4.0mm Temp      | Intercept |  | 0.25       | 0.37  | 0.55 | N                    | NC | -  | -         | Intercept | 0.25         | 0.32  | 0.49 | N                    | NC | -  | -     |   |
|   |   | Low-E SC/Air       | 3.0mm Temp      | Intercept |  | 0.32       | 0.23  | 0.45 | -                    | -  | -  | -         | Intercept | 0.32         | 0.21  | 0.39 | -                    | -  | -  | -     |   |
|   |   |                    | 4.0mm Temp      | Intercept |  | 0.32       | 0.23  | 0.45 | -                    | -  | -  | -         | Intercept | 0.32         | 0.21  | 0.39 | -                    | -  | -  | -     |   |
|   |   | Low-E SC/Argon     | 3.0mm Temp      | Intercept |  | 0.28       | 0.23  | 0.45 | N                    | NC | SC | S         | Intercept | 0.28         | 0.20  | 0.39 | N                    | NC | SC | S     |   |
|   |   |                    | 4.0mm Temp      | Intercept |  | 0.28       | 0.23  | 0.45 | N                    | NC | SC | S         | Intercept | 0.28         | 0.20  | 0.39 | N                    | NC | SC | S     |   |
|   | Gliding Patio Sidelight Nailing Flange with J-Channel Frame   | Clear/Air          | 3.0mm Temp      | Intercept | SIL-N-65                                 | 0.45       | 0.63  | 0.65 | -                    | -  | -  | -         | Intercept | 0.45         | 0.57  | 0.58 | -                    | -  | -  | -     |   |
|   |   |                    | 4.0mm Temp      | Intercept |  | 0.46       | 0.62  | 0.65 | -                    | -  | -  | -         | Intercept | 0.46         | 0.55  | 0.58 | -                    | -  | -  | -     |   |
|   |   | Low-E/Air          | 3.0mm Temp      | Intercept |  | 0.31       | 0.31  | 0.56 | -                    | -  | -  | -         | Intercept | 0.31         | 0.28  | 0.50 | -                    | -  | -  | -     |   |
|   |   |                    | 4.0mm Temp      | Intercept |  | 0.32       | 0.31  | 0.55 | -                    | -  | -  | -         | Intercept | 0.32         | 0.28  | 0.50 | -                    | -  | -  | -     |   |
|   |   | Low-E/Argon        | 3.0mm Temp      | Intercept |  | 0.28       | 0.31  | 0.56 | -                    | NC | -  | -         | Intercept | 0.28         | 0.28  | 0.50 | -                    | NC | -  | -     |   |
|   |   |                    | 4.0mm Temp      | Intercept |  | 0.28       | 0.31  | 0.55 | -                    | NC | -  | -         | Intercept | 0.28         | 0.28  | 0.50 | -                    | NC | -  | -     |   |
|   |   | Low-E PS/Air       | 3.0mm Temp      | Intercept |  | 0.32       | 0.46  | 0.57 | -                    | -  | -  | -         | Intercept | 0.32         | 0.41  | 0.51 | -                    | -  | -  | -     |   |
|   |   |                    | 4.0mm Temp      | Intercept |  | 0.32       | 0.45  | 0.56 | -                    | -  | -  | -         | Intercept | 0.32         | 0.40  | 0.50 | -                    | -  | -  | -     |   |
|   |   | Low-E PS/Argon     | 3.0mm Temp      | Intercept |  | 0.28       | 0.46  | 0.57 | N                    | -  | -  | -         | Intercept | 0.28         | 0.41  | 0.51 | N                    | -  | -  | -     |   |
|   |   |                    | 4.0mm Temp      | Intercept |  | 0.28       | 0.45  | 0.56 | N                    | -  | -  | -         | Intercept | 0.28         | 0.41  | 0.50 | N                    | -  | -  | -     |   |
|   |   | Low-E2+ PS/Air     | 3.0mm Temp      | Intercept |  | 0.27       | 0.37  | 0.55 | N                    | NC | -  | -         | Intercept | 0.27         | 0.33  | 0.49 | N                    | NC | -  | -     |   |
|   |   |                    | 4.0mm Temp      | Intercept |  | 0.27       | 0.36  | 0.55 | N                    | NC | -  | -         | Intercept | 0.27         | 0.33  | 0.49 | N                    | NC | -  | -     |   |
| Low-E2+ PS/Argon  |   | 3.0mm Temp         | Intercept       | 0.24      |  | 0.37       | 0.55  | N    | NC                   | -  | -  | Intercept | 0.24      | 0.33         | 0.49  | N    | NC                   | -  | -  |       |   |
|   |   | 4.0mm Temp         | Intercept       | 0.25      |  | 0.36       | 0.55  | N    | NC                   | -  | -  | Intercept | 0.25      | 0.33         | 0.49  | N    | NC                   | -  | -  |       |   |
| Low-E SC/Air  |   | 3.0mm Temp         | Intercept       | 0.31      |  | 0.23       | 0.44  | -    | -                    | -  | S  | Intercept | 0.31      | 0.21         | 0.39  | -    | -                    | -  | S  |       |   |
|   |   | 4.0mm Temp         | Intercept       | 0.32      |  | 0.23       | 0.44  | -    | -                    | -  | S  | Intercept | 0.32      | 0.21         | 0.39  | -    | -                    | -  | S  |       |   |
| Low-E SC/Argon  |   | 3.0mm Temp         | Intercept       | 0.28      |  | 0.22       | 0.44  | -    | NC                   | SC | S  | Intercept | 0.28      | 0.20         | 0.39  | -    | NC                   | SC | S  |       |   |
|   |   | 4.0mm Temp         | Intercept       | 0.28      |  | 0.22       | 0.44  | -    | NC                   | SC | S  | Intercept | 0.28      | 0.20         | 0.39  | -    | NC                   | SC | S  |       |   |
| Gliding Patio Transom Nailing Flange with J-Channel Frame | Clear/Air   | 3.0mm Temp         | Intercept       | SIL-N-66  | 0.47                                     | 0.63       | 0.65  | -    | -                    | -  | -  | Intercept | 0.47      | 0.57         | 0.59  | -    | -                    | -  | -  |       |   |
|   |   | 4.0mm Temp         | Intercept       |           | 0.47                                     | 0.61       | 0.65  | -    | -                    | -  | -  | Intercept | 0.47      | 0.56         | 0.59  | -    | -                    | -  | -  |       |   |
|   | Low-E/Air   | 3.0mm Temp         | Intercept       |           | 0.32                                     | 0.31       | 0.56  | -    | -                    | -  | -  | Intercept | 0.32      | 0.28         | 0.50  | -    | -                    | -  | -  |       |   |
|   |   | 4.0mm Temp         | Intercept       |           | 0.33                                     | 0.31       | 0.55  | -    | -                    | -  | -  | Intercept | 0.33      | 0.28         | 0.50  | -    | -                    | -  | -  |       |   |
|   | Low-E/Argon   | 3.0mm Temp         | Intercept       |           | 0.29                                     | 0.31       | 0.56  | -    | NC                   | -  | -  | Intercept | 0.29      | 0.28         | 0.50  | -    | NC                   | -  | -  |       |   |
|   |   | 4.0mm Temp         | Intercept       |           | 0.29                                     | 0.31       | 0.55  | -    | NC                   | -  | -  | Intercept | 0.29      | 0.28         | 0.50  | -    | NC                   | -  | -  |       |   |
|   | Low-E PS/Air  | 3.0mm Temp         | Intercept       |           | 0.32                                     | 0.45       | 0.56  | -    | -                    | -  | -  | Intercept | 0.32      | 0.41         | 0.51  | -    | -                    | -  | -  |       |   |
|   |   | 4.0mm Temp         | Intercept       |           | 0.33                                     | 0.45       | 0.56  | -    | -                    | -  | -  | Intercept | 0.33      | 0.41         | 0.51  | -    | -                    | -  | -  |       |   |
|   | Low-E PS/Argon  | 3.0mm Temp         | Intercept       |           | 0.29                                     | 0.46       | 0.56  | N    | -                    | -  | -  | Intercept | 0.29      | 0.42         | 0.51  | N    | -                    | -  | -  |       |   |
|   |   | 4.0mm Temp         | Intercept       |           | 0.29                                     | 0.45       | 0.56  | N    | -                    | -  | -  | Intercept | 0.29      | 0.41         | 0.51  | N    | -                    | -  | -  |       |   |
|   | Low-E2+ PS/Air  | 3.0mm Temp         | Intercept       |           | 0.28                                     | 0.36       | 0.55  | N    | NC                   | -  | -  | Intercept | 0.28      | 0.33         | 0.50  | N    | NC                   | -  | -  |       |   |
|   |   | 4.0mm Temp         | Intercept       |           | 0.29                                     | 0.36       | 0.54  | -    | NC                   | -  | -  | Intercept | 0.29      | 0.33         | 0.49  | -    | NC                   | -  | -  |       |   |
|   | Low-E2+ PS/Argon  | 3.0mm Temp         | Intercept       |           | 0.26                                     | 0.36       | 0.55  | N    | NC                   | -  | -  | Intercept | 0.26      | 0.33         | 0.50  | N    | NC                   | -  | -  |       |   |
|   |   | 4.0mm Temp         | Intercept       |           | 0.26                                     | 0.36       | 0.54  | N    | NC                   | -  | -  | Intercept | 0.26      | 0.33         | 0.49  | N    | NC                   | -  | -  |       |   |
|   | Low-E SC/Air  | 3.0mm Temp         | Intercept       |           | 0.32                                     | 0.23       | 0.44  | -    | -                    | -  | S  | Intercept | 0.32      | 0.21         | 0.40  | -    | -                    | -  | S  |       |   |
|   |   | 4.0mm Temp         | Intercept       |           | 0.33                                     | 0.23       | 0.44  | -    | -                    | -  | S  | Intercept | 0.33      | 0.21         | 0.40  | -    | -                    | -  | S  |       |   |
|   | Low-E SC/Argon  | 3.0mm Temp         | Intercept       |           | 0.29                                     | 0.22       | 0.44  | -    | NC                   | SC | S  | Intercept | 0.29      | 0.20         | 0.40  | -    | NC                   | SC | S  |       |   |
|   |   | 4.0mm Temp         | Intercept       |           | 0.29                                     | 0.22       | 0.44  | -    | NC                   | SC | S  | Intercept | 0.29      | 0.20         | 0.40  | -    | NC                   | SC | S  |       |   |

| Silver Line Product Series               | Silver Line Product Type   | Glass Type/ Infill | Glass Thickness | Spacer    | NFRC Certified Products Directory Number | No Grilles            |                   |                 |                      |    |    |           |           | With Grilles          |                   |                 |                      |    |    |       |   |
|--|--|--------------------|-----------------|-----------|--|-----------------------|-------------------|-----------------|----------------------|----|----|-----------|-----------|-----------------------|-------------------|-----------------|----------------------|----|----|-------|---|
|  |  |                    |                 |           |  | U-Factor <sup>1</sup> | SHGC <sup>2</sup> | VT <sup>3</sup> | US ENERGY STAR v 6.0 |    |    |           | Spacer    | U-Factor <sup>1</sup> | SHGC <sup>2</sup> | VT <sup>3</sup> | US ENERGY STAR v 6.0 |    |    |       |   |
|  |  |                    |                 |           |  |                       |                   |                 | North                | NC | SC | South     |           |                       |                   |                 | North                | NC | SC | South |   |
| V3 Series                                | Gliding Patio Door, Blinds-Between-the-Glass, Nailing Flange & J-Channel           | Low-E/Air          | 3.0mm Temp      | Intercept | SIL-N-36                                 | 0.35                  | 0.28              | 0.51            | -                    | -  | -  | -         | Intercept | -                     | -                 | -               | -                    | -  | -  | -     |   |
|  | Gliding Patio Door Sidelight, Blinds-Between-the-Glass, Nailing Flange & J-Channel | Low-E/Air          | 3.0mm Temp      | Intercept | SIL-N-65                                 | 0.34                  | 0.28              | 0.50            | -                    | -  | -  | -         | Intercept | -                     | -                 | -               | -                    | -  | -  | -     |   |
| V3 Series with Coastal Watch™ Protection | Double-Hung Nailing Flange Frame with optional J-Channel                           | Low-E/Air          | Lami/3.0mm      | Intercept | SIL-N-33                                 | 0.35                  | 0.29              | 0.52            | -                    | -  | -  | -         | Intercept | 0.36                  | 0.26              | 0.46            | -                    | -  | -  | -     |   |
|  |  | Low-E/Argon        | Lami/3.0mm      | Intercept |  | 0.31                  | 0.29              | 0.52            | -                    | -  | -  | -         | Intercept | 0.32                  | 0.26              | 0.46            | -                    | -  | -  | -     |   |
|  |  | Low-E SC/Air       | Lami/3.0mm      | Intercept |  | 0.35                  | 0.22              | 0.41            | -                    | -  | -  | S         | Intercept | 0.36                  | 0.19              | 0.36            | -                    | -  | -  | -     | S |
|  |  | Low-E SC/Argon     | Lami/3.0mm      | Intercept |  | 0.31                  | 0.21              | 0.41            | -                    | -  | -  | S         | Intercept | 0.32                  | 0.19              | 0.36            | -                    | -  | -  | -     | S |
|  | Gliding Insert Frame   | Clear/Air          | Lami/3.0mm      | Intercept | SIL-N-10                                 | 0.48                  | 0.56              | 0.60            | -                    | -  | -  | -         | Intercept | 0.48                  | 0.50              | 0.53            | -                    | -  | -  | -     |   |
|  |  | Low-E/Air          | Lami/3.0mm      | Intercept |  | 0.35                  | 0.29              | 0.51            | -                    | -  | -  | -         | Intercept | 0.35                  | 0.26              | 0.46            | -                    | -  | -  | -     |   |
|  |  | Low-E/Argon        | Lami/3.0mm      | Intercept |  | 0.31                  | 0.29              | 0.51            | -                    | -  | -  | -         | Intercept | 0.31                  | 0.26              | 0.46            | -                    | -  | -  | -     |   |
|  |  | Low-E SC/Air       | Lami/3.0mm      | Intercept |  | 0.35                  | 0.21              | 0.41            | -                    | -  | -  | S         | Intercept | 0.35                  | 0.19              | 0.36            | -                    | -  | -  | -     | S |
|  | Casement Insert or Nailing Flange Frame with optional J-Channel                    | Low-E SC/Argon     | Lami/3.0mm      | Intercept | SIL-N-57                                 | 0.31                  | 0.21              | 0.41            | -                    | -  | -  | S         | Intercept | 0.31                  | 0.19              | 0.36            | -                    | -  | -  | -     | S |
|  |  | Clear/Air          | Lami/3.0mm      | Intercept |  | 0.40                  | 0.47              | 0.51            | -                    | -  | -  | -         | Intercept | 0.41                  | 0.43              | 0.46            | -                    | -  | -  | -     |   |
|  |  | Low-E/Air          | Lami/3.0mm      | Intercept |  | 0.30                  | 0.25              | 0.44            | -                    | NC | SC | S         | Intercept | 0.31                  | 0.23              | 0.39            | -                    | -  | -  | -     | S |
|  |  | Low-E/Argon        | Lami/3.0mm      | Intercept |  | 0.27                  | 0.25              | 0.44            | N                    | NC | SC | S         | Intercept | 0.28                  | 0.23              | 0.39            | -                    | NC | SC | S     |   |
|  | Awning Insert or Nailing Flange Frame with optional J-Channel                      | Low-E SC/Air       | Lami/3.0mm      | Intercept | SIL-N-55                                 | 0.30                  | 0.18              | 0.35            | -                    | NC | SC | S         | Intercept | 0.31                  | 0.17              | 0.31            | -                    | -  | -  | -     | S |
|  |  | Low-E SC/Argon     | Lami/3.0mm      | Intercept |  | 0.27                  | 0.18              | 0.35            | N                    | NC | SC | S         | Intercept | 0.27                  | 0.17              | 0.31            | N                    | NC | SC | S     |   |
|  |  | Clear/Air          | Lami/3.0mm      | Intercept |  | 0.41                  | 0.47              | 0.51            | -                    | -  | -  | -         | Intercept | 0.41                  | 0.43              | 0.46            | -                    | -  | -  | -     |   |
|  |  | Low-E/Air          | Lami/3.0mm      | Intercept |  | 0.31                  | 0.25              | 0.44            | -                    | -  | -  | S         | Intercept | 0.32                  | 0.23              | 0.39            | -                    | -  | -  | -     | S |
|  | Casement Picture Insert or Nailing Flange Frame with optional J-Channel            | Low-E/Argon        | Lami/3.0mm      | Intercept | SIL-N-55                                 | 0.27                  | 0.25              | 0.44            | N                    | NC | SC | S         | Intercept | 0.28                  | 0.23              | 0.39            | -                    | NC | SC | S     |   |
|  |  | Low-E SC/Air       | Lami/3.0mm      | Intercept |  | 0.31                  | 0.19              | 0.35            | -                    | -  | -  | S         | Intercept | 0.32                  | 0.17              | 0.31            | -                    | -  | -  | -     | S |
|  |  | Low-E SC/Argon     | Lami/3.0mm      | Intercept |  | 0.27                  | 0.18              | 0.35            | N                    | NC | SC | S         | Intercept | 0.28                  | 0.17              | 0.31            | -                    | NC | SC | S     |   |
|  |  | Clear/Air          | Lami/3.0mm      | Intercept |  | 0.45                  | 0.63              | 0.69            | -                    | -  | -  | -         | Intercept | 0.46                  | 0.57              | 0.62            | -                    | -  | -  | -     |   |
|  | Casement Shapes Insert or Nailing Flange Frame with optional J-Channel             | Low-E/Air          | Lami/3.0mm      | SS        | SIL-N-55                                 | 0.32                  | 0.33              | 0.59            | -                    | -  | -  | -         | SS        | 0.34                  | 0.30              | 0.53            | -                    | -  | -  | -     |   |
|  |  | Low-E/Argon        | Lami/3.0mm      | SS        |  | 0.27                  | 0.33              | 0.59            | N                    | NC | -  | -         | SS        | 0.29                  | 0.30              | 0.53            | -                    | NC | -  | -     |   |
|  |  | Low-E SC/Air       | Lami/3.0mm      | SS        |  | 0.32                  | 0.24              | 0.47            | -                    | -  | -  | S         | SS        | 0.33                  | 0.22              | 0.42            | -                    | -  | -  | -     | S |
|  |  | Low-E SC/Argon     | Lami/3.0mm      | SS        |  | 0.27                  | 0.24              | 0.47            | N                    | NC | SC | S         | SS        | 0.28                  | 0.22              | 0.42            | -                    | NC | SC | S     |   |
|  | Gliding Patio Door Nailing Flange with J-Channel Frame                             | Clear/Air          | Lami/3.0mm Temp | Intercept | SIL-N-36                                 | 0.44                  | 0.61              | 0.65            | -                    | -  | -  | -         | Intercept | 0.44                  | 0.53              | 0.57            | -                    | -  | -  | -     |   |
|  |  | Low-E/Air          | Lami/3.0mm Temp | Intercept |  | 0.31                  | 0.31              | 0.55            | -                    | -  | -  | -         | Intercept | 0.31                  | 0.28              | 0.49            | -                    | -  | -  | -     |   |
|  |  | Low-E/Argon        | Lami/3.0mm Temp | Intercept |  | 0.28                  | 0.31              | 0.55            | N                    | NC | -  | -         | Intercept | 0.28                  | 0.27              | 0.49            | N                    | NC | -  | -     |   |
|  |  | Low-E SC/Air       | Lami/3.0mm Temp | Intercept |  | 0.31                  | 0.23              | 0.44            | -                    | -  | -  | -         | Intercept | 0.31                  | 0.20              | 0.38            | -                    | -  | -  | -     |   |
|  | Low-E SC/Argon   | Lami/3.0mm Temp    | Intercept       |           | 0.28                                     | 0.22                  | 0.44              | N               | NC                   | SC | S  | Intercept | 0.28      | 0.20                  | 0.38              | N               | NC                   | SC | S  |       |   |

| Silver Line Product Series | Silver Line Product Type                  | Glass Type/ Infill | Glass Thickness | Spacer    | NFRC Certified Products Directory Number | No Grilles |       |       |                      |    |    |       |           | With Grilles |       |       |                      |    |    |       |  |
|----------------------------|---|--------------------|-----------------|-----------|--|------------|-------|-------|----------------------|----|----|-------|-----------|--------------|-------|-------|----------------------|----|----|-------|--|
|                            |   |                    |                 |           |  | U-Factor1  | SHGC2 | VL T3 | US ENERGY STAR v 6.0 |    |    |       | Spacer    | U-Factor1    | SHGC2 | VL T3 | US ENERGY STAR v 6.0 |    |    |       |  |
|                            |   |                    |                 |           |  |            |       |       | North                | NC | SC | South |           |              |       |       | North                | NC | SC | South |  |
| V1 Series                  | Double-Hung Insert Frame                  | Clear/Air          | 2.2mm           | Intercept | SIL-N-2                                  | 0.48       | 0.63  | 0.64  | -                    | -  | -  | -     | Intercept | 0.48         | 0.56  | 0.57  | -                    | -  | -  | -     |  |
|                            |   |                    | 3.0mm           | Intercept |  | 0.48       | 0.62  | 0.64  | -                    | -  | -  | -     | Intercept | 0.49         | 0.55  | 0.57  | -                    | -  | -  | -     |  |
|                            |   | Low-E/Air          | 2.2mm           | Intercept |  | 0.34       | 0.31  | 0.55  | -                    | -  | -  | -     | Intercept | 0.35         | 0.28  | 0.49  | -                    | -  | -  | -     |  |
|                            |   |                    | 3.0mm           | Intercept |  | 0.35       | 0.31  | 0.55  | -                    | -  | -  | -     | Intercept | 0.36         | 0.28  | 0.49  | -                    | -  | -  | -     |  |
|                            |   | Low-E/Argon        | 2.2mm           | Intercept |  | 0.30       | 0.31  | 0.55  | -                    | NC | -  | -     | Intercept | 0.30         | 0.28  | 0.49  | -                    | NC | -  | -     |  |
|                            |   |                    | 3.0mm           | Intercept |  | 0.30       | 0.31  | 0.55  | -                    | NC | -  | -     | Intercept | 0.32         | 0.28  | 0.49  | -                    | -  | -  | -     |  |
|                            |   | Low-E PS/Air       | 2.2mm           | Intercept |  | 0.34       | 0.46  | 0.56  | -                    | -  | -  | -     | Intercept | 0.35         | 0.41  | 0.50  | -                    | -  | -  | -     |  |
|                            |   |                    | 3.0mm           | Intercept |  | 0.35       | 0.45  | 0.56  | -                    | -  | -  | -     | Intercept | 0.36         | 0.40  | 0.50  | -                    | -  | -  | -     |  |
|                            |   | Low-E PS/Argon     | 2.2mm           | Intercept |  | 0.30       | 0.46  | 0.56  | N                    | -  | -  | -     | Intercept | 0.31         | 0.41  | 0.50  | -                    | -  | -  | -     |  |
|                            |   |                    | 3.0mm           | Intercept |  | 0.31       | 0.45  | 0.56  | -                    | -  | -  | -     | Intercept | 0.32         | 0.41  | 0.50  | -                    | -  | -  | -     |  |
|                            |   | Low-E2+ PS/Air     | 2.2mm           | Intercept |  | 0.30       | 0.37  | 0.54  | -                    | NC | -  | -     | Intercept | 0.31         | 0.33  | 0.48  | -                    | -  | -  | -     |  |
|                            |   |                    | 3.0mm           | Intercept |  | 0.30       | 0.36  | 0.54  | -                    | NC | -  | -     | Intercept | 0.31         | 0.33  | 0.48  | -                    | -  | -  | -     |  |
|                            |   | Low-E2+ PS/Argon   | 2.2mm           | Intercept |  | 0.27       | 0.37  | 0.54  | N                    | NC | -  | -     | Intercept | 0.28         | 0.33  | 0.48  | N                    | NC | -  | -     |  |
|                            |   |                    | 3.0mm           | Intercept |  | 0.27       | 0.36  | 0.54  | N                    | NC | -  | -     | Intercept | 0.28         | 0.32  | 0.48  | N                    | NC | -  | -     |  |
|                            |   | Low-E SC/Air       | 2.2mm           | Intercept |  | 0.34       | 0.23  | 0.44  | -                    | -  | -  | S     | Intercept | 0.35         | 0.20  | 0.39  | -                    | -  | -  | S     |  |
|                            |   |                    | 3.0mm           | Intercept |  | 0.35       | 0.23  | 0.43  | -                    | -  | -  | S     | Intercept | 0.36         | 0.21  | 0.39  | -                    | -  | -  | S     |  |
|                            |   | Low-E SC/Argon     | 2.2mm           | Intercept |  | 0.30       | 0.22  | 0.44  | -                    | NC | SC | S     | Intercept | 0.30         | 0.20  | 0.39  | -                    | NC | SC | S     |  |
|                            |   |                    | 3.0mm           | Intercept |  | 0.30       | 0.22  | 0.43  | -                    | NC | SC | S     | Intercept | 0.31         | 0.20  | 0.39  | -                    | -  | -  | S     |  |
|                            | Double Hung Picture Insert Frame          | Clear/Air          | 3.0mm           | Intercept | SIL-N-55                                 | 0.46       | 0.66  | 0.69  | -                    | -  | -  | -     | Intercept | 0.46         | 0.59  | 0.62  | -                    | -  | -  | -     |  |
|                            |   |                    | 4.0mm           | Intercept |  | 0.46       | 0.64  | 0.69  | -                    | -  | -  | -     | Intercept | 0.46         | 0.58  | 0.62  | -                    | -  | -  | -     |  |
|                            |   | Low-E/Air          | 3.0mm           | Intercept |  | 0.31       | 0.33  | 0.59  | -                    | -  | -  | -     | Intercept | 0.31         | 0.30  | 0.53  | -                    | -  | -  | -     |  |
|                            |   |                    | 4.0mm           | Intercept |  | 0.31       | 0.33  | 0.59  | -                    | -  | -  | -     | Intercept | 0.31         | 0.30  | 0.53  | -                    | -  | -  | -     |  |
|                            |   | Low-E/Argon        | 3.0mm           | Intercept |  | 0.27       | 0.33  | 0.59  | N                    | NC | -  | -     | Intercept | 0.27         | 0.30  | 0.53  | N                    | NC | -  | -     |  |
|                            |   |                    | 4.0mm           | Intercept |  | 0.27       | 0.33  | 0.59  | N                    | NC | -  | -     | Intercept | 0.27         | 0.29  | 0.53  | N                    | NC | -  | -     |  |
|                            |   | Low-E PS/Air       | 3.0mm           | Intercept |  | 0.31       | 0.48  | 0.60  | -                    | -  | -  | -     | Intercept | 0.31         | 0.43  | 0.54  | -                    | -  | -  | -     |  |
|                            |   |                    | 4.0mm           | Intercept |  | 0.31       | 0.47  | 0.59  | -                    | -  | -  | -     | Intercept | 0.31         | 0.42  | 0.53  | -                    | -  | -  | -     |  |
|                            |   | Low-E PS/Argon     | 3.0mm           | Intercept |  | 0.27       | 0.48  | 0.60  | N                    | -  | -  | -     | Intercept | 0.27         | 0.44  | 0.54  | N                    | -  | -  | -     |  |
|                            |   |                    | 4.0mm           | Intercept |  | 0.27       | 0.47  | 0.59  | N                    | -  | -  | -     | Intercept | 0.27         | 0.43  | 0.53  | N                    | -  | -  | -     |  |
|                            |   | Low-E2+ PS/Air     | 3.0mm           | Intercept |  | 0.27       | 0.40  | 0.60  | N                    | NC | -  | -     | Intercept | 0.27         | 0.36  | 0.54  | N                    | NC | -  | -     |  |
|                            |   |                    | 4.0mm           | Intercept |  | 0.27       | 0.39  | 0.60  | N                    | NC | -  | -     | Intercept | 0.27         | 0.36  | 0.54  | N                    | NC | -  | -     |  |
|                            |   | Low-E2+ PS/Argon   | 3.0mm           | Intercept |  | 0.24       | 0.40  | 0.60  | N                    | NC | -  | -     | Intercept | 0.24         | 0.36  | 0.54  | N                    | NC | -  | -     |  |
|                            |   |                    | 4.0mm           | Intercept |  | 0.24       | 0.39  | 0.60  | N                    | NC | -  | -     | Intercept | 0.24         | 0.36  | 0.54  | N                    | NC | -  | -     |  |
|                            |   | Low-E SC/Air       | 3.0mm           | Intercept |  | 0.31       | 0.24  | 0.47  | -                    | -  | -  | S     | Intercept | 0.31         | 0.22  | 0.42  | -                    | -  | -  | S     |  |
|                            |   |                    | 4.0mm           | Intercept |  | 0.31       | 0.24  | 0.46  | -                    | -  | -  | S     | Intercept | 0.31         | 0.22  | 0.42  | -                    | -  | -  | S     |  |
|                            |   | Low-E SC/Argon     | 3.0mm           | Intercept |  | 0.27       | 0.24  | 0.47  | N                    | NC | SC | S     | Intercept | 0.27         | 0.22  | 0.42  | N                    | NC | SC | S     |  |
|                            |   |                    | 4.0mm           | Intercept |  | 0.27       | 0.24  | 0.46  | N                    | NC | SC | S     | Intercept | 0.27         | 0.22  | 0.42  | N                    | NC | SC | S     |  |
|                            | Double Hung Specialty Shapes Insert Frame | Clear/Air          | 3.0mm           | SS        | SIL-N-55                                 | 0.45       | 0.66  | 0.69  | -                    | -  | -  | -     | SS        | 0.45         | 0.59  | 0.62  | -                    | -  | -  | -     |  |
|                            |   |                    | 4.0mm           | SS        |  | 0.45       | 0.64  | 0.69  | -                    | -  | -  | -     | SS        | 0.46         | 0.58  | 0.62  | -                    | -  | -  | -     |  |
|                            |   | Low-E/Air          | 3.0mm           | SS        |  | 0.30       | 0.33  | 0.59  | -                    | NC | -  | -     | SS        | 0.30         | 0.30  | 0.53  | -                    | NC | -  | -     |  |
|                            |   |                    | 4.0mm           | SS        |  | 0.30       | 0.33  | 0.59  | -                    | NC | -  | -     | SS        | 0.32         | 0.30  | 0.53  | -                    | -  | -  | -     |  |
|                            |   | Low-E/Argon        | 3.0mm           | SS        |  | 0.26       | 0.33  | 0.59  | N                    | NC | -  | -     | SS        | 0.26         | 0.30  | 0.53  | N                    | NC | -  | -     |  |
|                            |   |                    | 4.0mm           | SS        |  | 0.26       | 0.33  | 0.59  | N                    | NC | -  | -     | SS        | 0.27         | 0.29  | 0.53  | N                    | NC | -  | -     |  |
|                            |   | Low-E PS/Air       | 3.0mm           | SS        |  | 0.30       | 0.48  | 0.60  | N                    | -  | -  | -     | SS        | 0.30         | 0.43  | 0.54  | N                    | -  | -  | -     |  |
|                            |   |                    | 4.0mm           | SS        |  | 0.31       | 0.47  | 0.59  | -                    | -  | -  | -     | SS        | 0.32         | 0.42  | 0.53  | -                    | -  | -  | -     |  |
|                            |   | Low-E PS/Argon     | 3.0mm           | SS        |  | 0.26       | 0.48  | 0.60  | N                    | -  | -  | -     | SS        | 0.26         | 0.44  | 0.54  | N                    | -  | -  | -     |  |
|                            |   |                    | 4.0mm           | SS        |  | 0.26       | 0.47  | 0.59  | N                    | -  | -  | -     | SS        | 0.27         | 0.43  | 0.53  | N                    | -  | -  | -     |  |
|                            |   | Low-E2+ PS/Air     | 3.0mm           | SS        |  | 0.26       | 0.40  | 0.60  | N                    | NC | -  | -     | SS        | 0.26         | 0.36  | 0.54  | N                    | NC | -  | -     |  |
|                            |   |                    | 4.0mm           | SS        |  | 0.27       | 0.40  | 0.60  | N                    | NC | -  | -     | SS        | 0.28         | 0.36  | 0.54  | N                    | NC | -  | -     |  |
| Low-E2+ PS/Argon           |   | 3.0mm              | SS              | 0.23      |  | 0.40       | 0.60  | N     | NC                   | -  | -  | SS    | 0.23      | 0.36         | 0.54  | N     | NC                   | -  | -  |       |  |
|                            |   | 4.0mm              | SS              | 0.24      |  | 0.39       | 0.60  | N     | NC                   | -  | -  | SS    | 0.24      | 0.36         | 0.54  | N     | NC                   | -  | -  |       |  |
| Low-E SC/Air               |   | 3.0mm              | SS              | 0.30      |  | 0.24       | 0.47  | -     | NC                   | SC | S  | SS    | 0.30      | 0.22         | 0.42  | -     | NC                   | SC | S  |       |  |
|                            |   | 4.0mm              | SS              | 0.30      |  | 0.24       | 0.46  | -     | NC                   | SC | S  | SS    | 0.31      | 0.22         | 0.42  | -     | -                    | -  | S  |       |  |
| Low-E SC/Argon             |   | 3.0mm              | SS              | 0.26      |  | 0.24       | 0.47  | N     | NC                   | SC | S  | SS    | 0.26      | 0.22         | 0.42  | N     | NC                   | SC | S  |       |  |
|                            |   | 4.0mm              | SS              | 0.26      |  | 0.24       | 0.46  | N     | NC                   | SC | S  | SS    | 0.27      | 0.22         | 0.42  | N     | NC                   | SC | S  |       |  |



| Silver Line Product Series | Silver Line Product Type                                    | Glass Type/ Infill                                 | Glass Thickness | Spacer     | NFRC Certified Products Directory Number | No Grilles            |          |      |                      |      |           |       |            | With Grilles          |           |      |                      |      |      |       |   |   |
|----------------------------|---|--|-----------------|------------|--|-----------------------|----------|------|----------------------|------|-----------|-------|------------|-----------------------|-----------|------|----------------------|------|------|-------|---|---|
|                            |   |  |                 |            |  | U-Factor <sup>1</sup> | SHGC2    | VT3  | US ENERGY STAR v 6.0 |      |           |       | Spacer     | U-Factor <sup>1</sup> | SHGC2     | VT3  | US ENERGY STAR v 6.0 |      |      |       |   |   |
|                            |   |  |                 |            |  |                       |          |      | North                | NC   | SC        | South |            |                       |           |      | North                | NC   | SC   | South |   |   |
| V1 Series                  | Single-Hung Insert or Nailing Flange Frame                  | Low-E/Air  | 2.2mm           | Intercept  | SIL-N-3                                  | 0.33                  | 0.32     | 0.57 | -                    | -    | -         | -     | Intercept  | 0.33                  | 0.29      | 0.51 | -                    | -    | -    | -     |   |   |
|                            |   |  | 3.0mm           | Intercept  |  | 0.34                  | 0.32     | 0.56 | -                    | -    | -         | -     | Intercept  | 0.35                  | 0.29      | 0.50 | -                    | -    | -    | -     |   |   |
|                            |   | Low-E/Argon  | 2.2mm           | Intercept  |  | 0.29                  | 0.31     | 0.57 | -                    | NC   | -         | -     | Intercept  | 0.29                  | 0.28      | 0.51 | -                    | NC   | -    | -     | - |   |
|                            |   |  | 3.0mm           | Intercept  |  | 0.30                  | 0.31     | 0.56 | -                    | NC   | -         | -     | Intercept  | 0.31                  | 0.28      | 0.50 | -                    | -    | -    | -     |   |   |
|                            |   | Low-E PS/Air                                       | 2.2mm           | Intercept  |  | 0.33                  | 0.47     | 0.58 | -                    | -    | -         | -     | Intercept  | 0.33                  | 0.42      | 0.51 | -                    | -    | -    | -     |   |   |
|                            |   |  | 3.0mm           | Intercept  |  | 0.34                  | 0.46     | 0.57 | -                    | -    | -         | -     | Intercept  | 0.35                  | 0.42      | 0.51 | -                    | -    | -    | -     |   |   |
|                            |   | Low-E PS/Argon                                     | 2.2mm           | Intercept  |  | 0.30                  | 0.47     | 0.58 | N                    | -    | -         | -     | Intercept  | 0.30                  | 0.42      | 0.51 | N                    | -    | -    | -     |   |   |
|                            |   |  | 3.0mm           | Intercept  |  | 0.30                  | 0.47     | 0.57 | N                    | -    | -         | -     | Intercept  | 0.31                  | 0.42      | 0.51 | -                    | -    | -    | -     |   |   |
|                            |   | Low-E2+ PS/Air                                     | 2.2mm           | Intercept  |  | 0.28                  | 0.38     | 0.56 | N                    | NC   | -         | -     | Intercept  | 0.28                  | 0.34      | 0.50 | N                    | NC   | -    | -     |   |   |
|                            |   |  | 3.0mm           | Intercept  |  | 0.29                  | 0.37     | 0.56 | N                    | NC   | -         | -     | Intercept  | 0.30                  | 0.34      | 0.50 | -                    | NC   | -    | -     |   |   |
|                            |   | Low-E2+ PS/Argon                                   | 2.2mm           | Intercept  |  | 0.26                  | 0.38     | 0.56 | N                    | NC   | -         | -     | Intercept  | 0.26                  | 0.34      | 0.50 | N                    | NC   | -    | -     |   |   |
|                            |   |  | 3.0mm           | Intercept  |  | 0.26                  | 0.37     | 0.56 | N                    | NC   | -         | -     | Intercept  | 0.27                  | 0.33      | 0.50 | N                    | NC   | -    | -     |   |   |
|                            |   | Low-E SC/Air                                       | 2.2mm           | Intercept  |  | 0.33                  | 0.23     | 0.45 | -                    | -    | -         | S     | Intercept  | 0.33                  | 0.21      | 0.40 | -                    | -    | -    | S     |   |   |
|                            |   |  | 3.0mm           | Intercept  |  | 0.34                  | 0.23     | 0.45 | -                    | -    | -         | S     | Intercept  | 0.35                  | 0.21      | 0.40 | -                    | -    | -    | S     |   |   |
|                            |   | Low-E SC/Argon                                     | 2.2mm           | Intercept  |  | 0.29                  | 0.23     | 0.45 | -                    | NC   | SC        | S     | Intercept  | 0.29                  | 0.21      | 0.40 | -                    | NC   | SC   | S     |   |   |
|                            |   |  | 3.0mm           | Intercept  |  | 0.30                  | 0.23     | 0.45 | -                    | NC   | SC        | S     | Intercept  | 0.31                  | 0.21      | 0.40 | -                    | -    | -    | S     |   |   |
|                            |   | Single-Hung Gliding Insert or Nailing Flange Frame | Low-E/Air       | 2.2mm      |  | Intercept             | SIL-N-21 | 0.33 | 0.32                 | 0.57 | -         | -     | -          | -                     | Intercept | 0.33 | 0.29                 | 0.51 | -    | -     | - | - |
|                            |   |  |                 | 3.0mm      |  | Intercept             |          | 0.34 | 0.32                 | 0.56 | -         | -     | -          | -                     | Intercept | 0.35 | 0.29                 | 0.50 | -    | -     | - | - |
|                            | Low-E/Argon   |  | 2.2mm           | Intercept  | 0.29                                     | 0.31                  |          | 0.57 | -                    | NC   | -         | -     | Intercept  | 0.29                  | 0.28      | 0.51 | -                    | NC   | -    | -     |   |   |
|                            |   |  | 3.0mm           | Intercept  | 0.30                                     | 0.31                  |          | 0.56 | -                    | NC   | -         | -     | Intercept  | 0.30                  | 0.28      | 0.50 | -                    | NC   | -    | -     |   |   |
|                            | Low-E PS/Air  |  | 2.2mm           | Intercept  | 0.33                                     | 0.47                  |          | 0.58 | -                    | -    | -         | -     | Intercept  | 0.33                  | 0.42      | 0.51 | -                    | -    | -    | -     |   |   |
|                            |   |  | 3.0mm           | Intercept  | 0.34                                     | 0.46                  |          | 0.57 | -                    | -    | -         | -     | Intercept  | 0.35                  | 0.41      | 0.51 | -                    | -    | -    | -     |   |   |
|                            | Low-E PS/Argon  |  | 2.2mm           | Intercept  | 0.30                                     | 0.47                  |          | 0.58 | N                    | -    | -         | -     | Intercept  | 0.30                  | 0.42      | 0.51 | N                    | -    | -    | -     |   |   |
|                            |   |  | 3.0mm           | Intercept  | 0.30                                     | 0.47                  |          | 0.57 | N                    | -    | -         | -     | Intercept  | 0.31                  | 0.42      | 0.51 | -                    | -    | -    | -     |   |   |
|                            | Low-E2+ PS/Air  |  | 2.2mm           | Intercept  | 0.29                                     | 0.38                  |          | 0.56 | N                    | NC   | -         | -     | Intercept  | 0.29                  | 0.34      | 0.50 | -                    | NC   | -    | -     |   |   |
|                            |   |  | 3.0mm           | Intercept  | 0.29                                     | 0.37                  |          | 0.56 | N                    | NC   | -         | -     | Intercept  | 0.30                  | 0.34      | 0.50 | -                    | NC   | -    | -     |   |   |
|                            | Low-E2+ PS/Argon  |  | 2.2mm           | Intercept  | 0.26                                     | 0.37                  |          | 0.56 | N                    | NC   | -         | -     | Intercept  | 0.26                  | 0.34      | 0.50 | N                    | NC   | -    | -     |   |   |
|                            |   |  | 3.0mm           | Intercept  | 0.26                                     | 0.37                  |          | 0.56 | N                    | NC   | -         | -     | Intercept  | 0.27                  | 0.33      | 0.50 | N                    | NC   | -    | -     |   |   |
|                            | Low-E SC/Air  | 2.2mm  | Intercept       | 0.33       | 0.23                                     | 0.45                  | -        | -    | -                    | S    | Intercept | 0.33  | 0.21       | 0.40                  | -         | -    | -                    | S    |      |       |   |   |
|                            |   | 3.0mm  | Intercept       | 0.34       | 0.23                                     | 0.45                  | -        | -    | -                    | S    | Intercept | 0.35  | 0.21       | 0.40                  | -         | -    | -                    | S    |      |       |   |   |
|                            | Low-E SC/Argon  | 2.2mm  | Intercept       | 0.29       | 0.23                                     | 0.45                  | -        | NC   | SC                   | S    | Intercept | 0.29  | 0.21       | 0.40                  | -         | NC   | SC                   | S    |      |       |   |   |
|                            |   | 3.0mm  | Intercept       | 0.29       | 0.23                                     | 0.45                  | -        | NC   | SC                   | S    | Intercept | 0.30  | 0.21       | 0.40                  | -         | NC   | SC                   | S    |      |       |   |   |
|                            | Single-Hung Picture Insert or Nailing Flange Frame          | Low-E/Air  | 3.0mm           | Intercept  | SIL-N-20                                 | 0.33                  | 0.33     | 0.59 | -                    | -    | -         | -     | Intercept  | 0.35                  | 0.30      | 0.53 | -                    | -    | -    | -     |   |   |
|                            |   |  | 4.0mm           | Intercept  |  | 0.35                  | 0.33     | 0.58 | -                    | -    | -         | -     | Intercept  | 0.37                  | 0.30      | 0.52 | -                    | -    | -    | -     |   |   |
|                            |   | Low-E/Argon  | 3.0mm           | Intercept  |  | 0.29                  | 0.33     | 0.59 | -                    | NC   | -         | -     | Intercept  | 0.30                  | 0.30      | 0.53 | -                    | NC   | -    | -     |   |   |
|                            |   |  | 4.0mm           | Intercept  |  | 0.30                  | 0.33     | 0.58 | -                    | NC   | -         | -     | Intercept  | 0.32                  | 0.30      | 0.52 | -                    | -    | -    | -     |   |   |
|                            |   | Low-E PS/Air                                       | 3.0mm           | Intercept  |  | 0.33                  | 0.48     | 0.60 | -                    | -    | -         | -     | Intercept  | 0.35                  | 0.43      | 0.53 | -                    | -    | -    | -     |   |   |
|                            |   |  | 4.0mm           | Intercept  |  | 0.36                  | 0.47     | 0.59 | -                    | -    | -         | -     | Intercept  | 0.37                  | 0.43      | 0.53 | -                    | -    | -    | -     |   |   |
|                            |   | Low-E PS/Argon                                     | 3.0mm           | Intercept  |  | 0.29                  | 0.48     | 0.60 | N                    | -    | -         | -     | Intercept  | 0.30                  | 0.44      | 0.53 | N                    | -    | -    | -     |   |   |
|                            |   |  | 4.0mm           | Intercept* |  | 0.29                  | 0.48     | 0.60 | N                    | -    | -         | -     | Intercept* | 0.30                  | 0.44      | 0.53 | N                    | -    | -    | -     |   |   |
|                            |   | Low-E2+ PS/Air                                     | 3.0mm           | Intercept  |  | 0.31                  | 0.47     | 0.59 | -                    | -    | -         | -     | Intercept  | 0.32                  | 0.43      | 0.53 | -                    | -    | -    | -     |   |   |
|                            |   |  | 4.0mm           | Intercept  |  | 0.28                  | 0.39     | 0.58 | N                    | NC   | -         | -     | Intercept  | 0.30                  | 0.35      | 0.52 | -                    | NC   | -    | -     |   |   |
|                            | Low-E2+ PS/Argon  | 3.0mm  | Intercept       | 0.30       | 0.38                                     | 0.57                  | -        | NC   | -                    | -    | Intercept | 0.31  | 0.35       | 0.51                  | -         | -    | -                    | -    |      |       |   |   |
|                            |   | 4.0mm  | Intercept       | 0.25       | 0.39                                     | 0.58                  | N        | NC   | -                    | -    | Intercept | 0.26  | 0.35       | 0.52                  | N         | NC   | -                    | -    |      |       |   |   |
|                            | Low-E SC/Air  | 3.0mm  | Intercept       | 0.26       | 0.38                                     | 0.57                  | N        | NC   | -                    | -    | Intercept | 0.28  | 0.35       | 0.51                  | N         | NC   | -                    | -    |      |       |   |   |
|                            |   | 4.0mm  | Intercept       | 0.33       | 0.24                                     | 0.47                  | -        | -    | -                    | S    | Intercept | 0.35  | 0.22       | 0.42                  | -         | -    | -                    | S    |      |       |   |   |
|                            | Low-E SC/Argon  | 3.0mm  | Intercept       | 0.35       | 0.24                                     | 0.46                  | -        | -    | -                    | S    | Intercept | 0.37  | 0.22       | 0.41                  | -         | -    | -                    | S    |      |       |   |   |
|                            |   | 4.0mm  | Intercept       | 0.29       | 0.24                                     | 0.47                  | -        | NC   | SC                   | S    | Intercept | 0.30  | 0.22       | 0.42                  | -         | NC   | SC                   | S    |      |       |   |   |
|                            | Single-Hung Specialty Shapes Insert or Nailing Flange Frame | Low-E/Air  | 3.0mm           | SS         | SIL-N-20                                 | 0.32                  | 0.33     | 0.59 | -                    | -    | -         | -     | SS         | 0.34                  | 0.30      | 0.53 | -                    | -    | -    | -     |   |   |
|                            |   |  | 4.0mm           | SS         |  | 0.34                  | 0.33     | 0.58 | -                    | -    | -         | -     | SS         | 0.36                  | 0.30      | 0.52 | -                    | -    | -    | -     |   |   |
|                            |   | Low-E/Argon  | 3.0mm           | SS         |  | 0.28                  | 0.33     | 0.59 | N                    | NC   | -         | -     | SS         | 0.29                  | 0.30      | 0.53 | -                    | NC   | -    | -     |   |   |
|                            |   |  | 4.0mm           | SS         |  | 0.29                  | 0.33     | 0.58 | -                    | NC   | -         | -     | SS         | 0.31                  | 0.30      | 0.52 | -                    | -    | -    | -     |   |   |
|                            |   | Low-E PS/Air                                       | 3.0mm           | SS         |  | 0.33                  | 0.48     | 0.60 | -                    | -    | -         | -     | SS         | 0.34                  | 0.43      | 0.53 | -                    | -    | -    | -     |   |   |
|                            |   |  | 4.0mm           | SS         |  | 0.35                  | 0.47     | 0.59 | -                    | -    | -         | -     | SS         | 0.37                  | 0.43      | 0.53 | -                    | -    | -    | -     |   |   |
|                            |   | Low-E PS/Argon                                     | 3.0mm           | SS         |  | 0.28                  | 0.48     | 0.60 | N                    | -    | -         | -     | SS         | 0.29                  | 0.44      | 0.53 | N                    | -    | -    | -     |   |   |
|                            |   |  | 4.0mm           | SS         |  | 0.30                  | 0.47     | 0.59 | N                    | -    | -         | -     | SS         | 0.31                  | 0.43      | 0.53 | -                    | -    | -    | -     |   |   |
|                            |   | Low-E2+ PS/Air                                     | 3.0mm           | SS*        |  | 0.29                  | 0.47     | 0.59 | N                    | -    | -         | -     | SS*        | 0.31                  | 0.43      | 0.53 | -                    | -    | -    | -     |   |   |
|                            |   |  | 4.0mm           | SS         |  | 0.28                  | 0.39     | 0.58 | N                    | NC   | -         | -     | SS         | 0.29                  | 0.35      | 0.52 | -                    | NC   | -    | -     |   |   |
|                            |   | Low-E2+ PS/Argon                                   | 3.0mm           | SS         |  | 0.29                  | 0.38     | 0.57 | N                    | NC   | -         | -     | SS         | 0.31                  | 0.35      | 0.51 | -                    | -    | -    | -     |   |   |
|                            |   |  | 4.0mm           | SS         |  | 0.24                  | 0.39     | 0.58 | N                    | NC   | -         | -     | SS         | 0.25                  | 0.35      | 0.52 | N                    | NC   | -    | -     |   |   |
|                            |   | Low-E SC/Air                                       | 3.0mm           | SS         |  | 0.26                  | 0.38     | 0.57 | N                    | NC   | -         | -     | SS         | 0.27                  | 0.35      | 0.51 | N                    | NC   | -    | -     |   |   |
|                            |   |  | 4.0mm           | SS         |  | 0.32                  | 0.24     | 0.47 | -                    | -    | -         | S     | SS         | 0.34                  | 0.22      | 0.42 | -                    | -    | -    | S     |   |   |
|                            |   | Low-E SC/Argon                                     | 3.0mm           | SS         |  | 0.34                  | 0.24     | 0.46 | -                    | -    | -         | S     | SS         | 0.36                  | 0.22      | 0.41 | -                    | -    | -    | S     |   |   |
|                            |   |  | 4.0mm           | SS         |  | 0.28                  | 0.24     | 0.47 | -                    | NC   | SC        | S     | SS         | 0.29                  | 0.22      | 0.42 | -                    | NC   | SC   | S     |   |   |
|                            |   |  |                 |            |  |                       |          |      | 0.29                 | 0.24 | 0.46      | -     | NC         | SC                    | S         | SS   | 0.31                 | 0.22 | 0.41 | -     | - | - |

| Silver Line Product Series | Silver Line Product Type   | Glass Type/ Infill | Glass Thickness | Spacer    | NFRC Certified Products Directory Number | No Grilles |       |      |                      |    |    |       |           | With Grilles |       |      |                      |    |    |       |   |
|----------------------------|--|--------------------|-----------------|-----------|--|------------|-------|------|----------------------|----|----|-------|-----------|--------------|-------|------|----------------------|----|----|-------|---|
|                            |  |                    |                 |           |  | U-Factor1  | SHGC2 | VT3  | US ENERGY STAR v 6.0 |    |    |       | Spacer    | U-Factor1    | SHGC2 | VT3  | US ENERGY STAR v 6.0 |    |    |       |   |
|                            |  |                    |                 |           |  |            |       |      | North                | NC | SC | South |           |              |       |      | North                | NC | SC | South |   |
| V1 Series                  | Single-Hung Masonry Flange Frame   | Low-E/Air          | 3.0mm           | Intercept | SIL-N-3                                  | 0.34       | 0.32  | 0.56 | -                    | -  | -  | -     | Intercept | 0.35         | 0.29  | 0.50 | -                    | -  | -  | -     |   |
|                            |  | Low-E/Argon        | 3.0mm           | Intercept |  | 0.30       | 0.31  | 0.56 | -                    | NC | -  | -     | -         | Intercept    | 0.31  | 0.28 | 0.50                 | -  | -  | -     | - |
|                            |  | Low-E PS/Air       | 3.0mm           | Intercept |  | 0.34       | 0.46  | 0.57 | -                    | -  | -  | -     | -         | Intercept    | 0.35  | 0.42 | 0.51                 | -  | -  | -     | - |
|                            |  | Low-E PS/Argon     | 3.0mm           | Intercept |  | 0.30       | 0.47  | 0.57 | N                    | -  | -  | -     | -         | Intercept    | 0.31  | 0.42 | 0.51                 | -  | -  | -     | - |
|                            |  | Low-E2+ PS/Air     | 3.0mm           | Intercept |  | 0.29       | 0.37  | 0.56 | N                    | NC | -  | -     | -         | Intercept    | 0.30  | 0.34 | 0.50                 | -  | NC | -     | - |
|                            |  | Low-E2+ PS/Argon   | 3.0mm           | Intercept |  | 0.26       | 0.37  | 0.56 | N                    | NC | -  | -     | -         | Intercept    | 0.27  | 0.33 | 0.50                 | N  | NC | -     | - |
|                            |  | Low-E SC/Air       | 3.0mm           | Intercept |  | 0.34       | 0.23  | 0.45 | -                    | -  | -  | -     | S         | Intercept    | 0.35  | 0.21 | 0.40                 | -  | -  | -     | S |
|                            |  | Low-E SC/Argon     | 3.0mm           | Intercept |  | 0.30       | 0.23  | 0.45 | -                    | NC | SC | -     | S         | Intercept    | 0.31  | 0.21 | 0.40                 | -  | -  | -     | S |
|                            | Single-Hung HVHZ Upgrade Masonry Flange or Nailing Flange                  | Low-E/Air          | 3.0mm           | Intercept | SIL-N-3                                  | 0.34       | 0.32  | 0.56 | -                    | -  | -  | -     | Intercept | 0.36         | 0.28  | 0.50 | -                    | -  | -  | -     |   |
|                            |  | Low-E/Argon        | 3.0mm           | Intercept |  | 0.30       | 0.31  | 0.56 | -                    | NC | -  | -     | -         | Intercept    | 0.31  | 0.28 | 0.50                 | -  | -  | -     |   |
|                            |  | Low-E SC/Air       | 3.0mm           | Intercept |  | 0.34       | 0.23  | 0.44 | -                    | -  | -  | -     | S         | Intercept    | 0.36  | 0.21 | 0.40                 | -  | -  | -     | S |
|                            |  | Low-E SC/Argon     | 3.0mm           | Intercept |  | 0.30       | 0.23  | 0.44 | -                    | NC | SC | -     | S         | Intercept    | 0.31  | 0.21 | 0.40                 | -  | -  | -     | S |
|                            | Single-Hung Picture Standard or HVHZ Upgrade Masonry Flange Frame          | Low-E/Air          | 3.0mm           | Intercept | SIL-N-20                                 | 0.33       | 0.33  | 0.59 | -                    | -  | -  | -     | Intercept | 0.35         | 0.30  | 0.53 | -                    | -  | -  | -     |   |
|                            |  |                    | 4.0mm           | Intercept |  | 0.35       | 0.33  | 0.58 | -                    | -  | -  | -     | -         | Intercept    | 0.37  | 0.30 | 0.52                 | -  | -  | -     |   |
|                            |  | Low-E/Argon        | 3.0mm           | Intercept |  | 0.29       | 0.33  | 0.59 | -                    | NC | -  | -     | -         | Intercept    | 0.30  | 0.30 | 0.53                 | -  | NC | -     | - |
|                            |  |                    | 4.0mm           | Intercept |  | 0.30       | 0.33  | 0.58 | -                    | NC | -  | -     | -         | Intercept    | 0.32  | 0.30 | 0.52                 | -  | -  | -     |   |
|                            |  | Low-E PS/Air       | 3.0mm           | Intercept |  | 0.33       | 0.48  | 0.60 | -                    | -  | -  | -     | -         | Intercept    | 0.35  | 0.43 | 0.53                 | -  | -  | -     | - |
|                            |  |                    | 4.0mm           | Intercept |  | 0.36       | 0.47  | 0.59 | -                    | -  | -  | -     | -         | Intercept    | 0.37  | 0.43 | 0.53                 | -  | -  | -     | - |
|                            |  | Low-E PS/Argon     | 3.0mm           | Intercept |  | 0.29       | 0.48  | 0.60 | N                    | -  | -  | -     | -         | Intercept    | 0.30  | 0.44 | 0.53                 | N  | -  | -     | - |
|                            |  |                    | 4.0mm           | Intercept |  | 0.31       | 0.47  | 0.59 | -                    | -  | -  | -     | -         | Intercept    | 0.32  | 0.43 | 0.53                 | -  | -  | -     | - |
|                            |  | Low-E2+ PS/Air     | 3.0mm           | Intercept |  | 0.28       | 0.39  | 0.58 | N                    | NC | -  | -     | -         | Intercept    | 0.30  | 0.35 | 0.52                 | -  | NC | -     | - |
|                            |  |                    | 4.0mm           | Intercept |  | 0.30       | 0.38  | 0.57 | -                    | NC | -  | -     | -         | Intercept    | 0.31  | 0.35 | 0.51                 | -  | -  | -     | - |
|                            |  | Low-E2+ PS/Argon   | 3.0mm           | Intercept |  | 0.25       | 0.39  | 0.58 | N                    | NC | -  | -     | -         | Intercept    | 0.26  | 0.35 | 0.52                 | N  | NC | -     | - |
|                            |  |                    | 4.0mm           | Intercept |  | 0.26       | 0.38  | 0.57 | N                    | NC | -  | -     | -         | Intercept    | 0.28  | 0.35 | 0.51                 | N  | NC | -     | - |
|                            |  | Low-E SC/Air       | 3.0mm           | Intercept |  | 0.33       | 0.24  | 0.47 | -                    | -  | -  | -     | S         | Intercept    | 0.35  | 0.22 | 0.42                 | -  | -  | -     | S |
|                            |  |                    | 4.0mm           | Intercept |  | 0.35       | 0.24  | 0.46 | -                    | -  | -  | -     | -         | Intercept    | 0.37  | 0.22 | 0.41                 | -  | -  | -     | S |
|                            |  | Low-E SC/Argon     | 3.0mm           | Intercept |  | 0.29       | 0.24  | 0.47 | -                    | NC | SC | -     | S         | Intercept    | 0.30  | 0.22 | 0.42                 | -  | NC | SC    | S |
|                            |  |                    | 4.0mm           | Intercept |  | 0.30       | 0.24  | 0.46 | -                    | NC | SC | -     | S         | Intercept    | 0.32  | 0.22 | 0.41                 | -  | -  | -     | S |
|                            | Single-Hung Specialty Shapes Standard or HVHZ Upgrade Masonry Flange Frame | Low-E/Air          | 3.0mm           | SS        | SIL-N-20                                 | 0.32       | 0.33  | 0.59 | -                    | -  | -  | -     | SS        | 0.34         | 0.30  | 0.53 | -                    | -  | -  | -     |   |
|                            |  |                    | 4.0mm           | SS        |  | 0.34       | 0.33  | 0.58 | -                    | -  | -  | -     | -         | SS           | 0.36  | 0.30 | 0.52                 | -  | -  | -     |   |
|                            |  | Low-E/Argon        | 3.0mm           | SS        |  | 0.28       | 0.33  | 0.59 | N                    | NC | -  | -     | -         | SS           | 0.29  | 0.30 | 0.53                 | -  | NC | -     | - |
|                            |  |                    | 4.0mm           | SS        |  | 0.29       | 0.33  | 0.58 | -                    | NC | -  | -     | -         | SS           | 0.31  | 0.30 | 0.52                 | -  | -  | -     |   |
|                            |  | Low-E PS/Air       | 3.0mm           | SS        |  | 0.33       | 0.48  | 0.60 | -                    | -  | -  | -     | -         | SS           | 0.34  | 0.43 | 0.53                 | -  | -  | -     | - |
|                            |  |                    | 4.0mm           | SS        |  | 0.35       | 0.47  | 0.59 | -                    | -  | -  | -     | -         | SS           | 0.37  | 0.43 | 0.53                 | -  | -  | -     | - |
|                            |  | Low-E PS/Argon     | 3.0mm           | SS        |  | 0.28       | 0.48  | 0.60 | N                    | -  | -  | -     | -         | SS           | 0.29  | 0.44 | 0.53                 | N  | -  | -     | - |
|                            |  |                    | 4.0mm           | SS        |  | 0.30       | 0.47  | 0.59 | N                    | -  | -  | -     | -         | SS           | 0.31  | 0.43 | 0.53                 | -  | -  | -     | - |
|                            |  | Low-E2+ PS/Air     | 3.0mm           | SS        |  | 0.30       | 0.47  | 0.59 | N                    | -  | -  | -     | -         | SS           | 0.31  | 0.43 | 0.53                 | -  | -  | -     | - |
|                            |  |                    | 4.0mm           | SS        |  | 0.28       | 0.39  | 0.58 | N                    | NC | -  | -     | -         | SS           | 0.29  | 0.35 | 0.52                 | -  | NC | -     | - |
|                            |  | Low-E2+ PS/Argon   | 3.0mm           | SS        |  | 0.29       | 0.38  | 0.57 | N                    | NC | -  | -     | -         | SS           | 0.31  | 0.35 | 0.51                 | -  | -  | -     | - |
|                            |  |                    | 4.0mm           | SS        |  | 0.24       | 0.39  | 0.58 | N                    | NC | -  | -     | -         | SS           | 0.25  | 0.35 | 0.52                 | N  | NC | -     | - |
|                            |  | Low-E SC/Air       | 3.0mm           | SS        |  | 0.26       | 0.38  | 0.57 | N                    | NC | -  | -     | -         | SS           | 0.27  | 0.35 | 0.51                 | N  | NC | -     | - |
|                            |  |                    | 4.0mm           | SS        |  | 0.32       | 0.24  | 0.47 | -                    | -  | -  | -     | S         | SS           | 0.34  | 0.22 | 0.42                 | -  | -  | -     | S |
|                            | Low-E SC/Argon   | 3.0mm              | SS              | 0.34      | 0.24                                     | 0.46       | -     | -    | -                    | -  | S  | SS    | 0.36      | 0.22         | 0.41  | -    | -                    | -  | S  |       |   |
|                            |  | 4.0mm              | SS              | 0.28      | 0.24                                     | 0.47       | -     | NC   | SC                   | -  | S  | SS    | 0.29      | 0.22         | 0.42  | -    | NC                   | SC | S  |       |   |
|                            | Hopper Insert Frame  | Clear/Air          | 2.2mm           | Intercept | SIL-N-14                                 | 0.48       | 0.55  | 0.56 | -                    | -  | -  | -     | Intercept | -            | -     | -    | -                    | -  | -  | -     |   |
|                            |  |                    | 3.0mm           | Intercept |  | 0.47       | 0.54  | 0.56 | -                    | -  | -  | -     | -         | Intercept    | -     | -    | -                    | -  | -  | -     |   |
|                            |  | Low-E/Air          | 2.2mm           | Intercept |  | 0.36       | 0.27  | 0.48 | -                    | -  | -  | -     | -         | Intercept    | -     | -    | -                    | -  | -  | -     |   |
|                            |  |                    | 3.0mm           | Intercept |  | 0.35       | 0.27  | 0.47 | -                    | -  | -  | -     | -         | Intercept    | -     | -    | -                    | -  | -  | -     |   |
|                            |  | Low-E/Argon        | 2.2mm           | Intercept |  | 0.32       | 0.27  | 0.48 | -                    | -  | -  | -     | -         | Intercept    | -     | -    | -                    | -  | -  | -     |   |
|                            |  |                    | 3.0mm           | Intercept |  | 0.32       | 0.27  | 0.47 | -                    | -  | -  | -     | -         | Intercept    | -     | -    | -                    | -  | -  | -     |   |
| Low-E PS/Air               |  | 2.2mm              | Intercept       | 0.36      |  | 0.40       | 0.48  | -    | -                    | -  | -  | -     | Intercept | -            | -     | -    | -                    | -  | -  |       |   |
|                            |  | 3.0mm              | Intercept       | 0.35      |  | 0.40       | 0.48  | -    | -                    | -  | -  | -     | Intercept | -            | -     | -    | -                    | -  | -  |       |   |
| Low-E PS/Argon             |  | 2.2mm              | Intercept       | 0.33      |  | 0.40       | 0.48  | -    | -                    | -  | -  | -     | Intercept | -            | -     | -    | -                    | -  | -  |       |   |
|                            |  | 3.0mm              | Intercept       | 0.32      |  | 0.40       | 0.48  | -    | -                    | -  | -  | -     | Intercept | -            | -     | -    | -                    | -  | -  |       |   |

| Silver Line Product Series | Silver Line Product Type   | Glass Type/ Infill | Glass Thickness | Spacer    | NFRC Certified Products Directory Number | No Grilles |       |      |                      |    |           |       |           | With Grilles |       |      |                      |    |    |       |  |
|----------------------------|--|--------------------|-----------------|-----------|--|------------|-------|------|----------------------|----|-----------|-------|-----------|--------------|-------|------|----------------------|----|----|-------|--|
|                            |  |                    |                 |           |  | U-Factor1  | SHGC2 | VLT3 | US ENERGY STAR v 6.0 |    |           |       | Spacer    | U-Factor1    | SHGC2 | VLT3 | US ENERGY STAR v 6.0 |    |    |       |  |
|                            |  |                    |                 |           |  |            |       |      | North                | NC | SC        | South |           |              |       |      | North                | NC | SC | South |  |
| V1 Series                  | Gliding Patio Door Insert Frame                                  | Clear/Air          | 3.0mm Temp      | Intercept | SIL-N-60                                 | 0.47       | 0.64  | 0.66 | -                    | -  | -         | -     | Intercept | 0.47         | 0.56  | 0.58 | -                    | -  | -  | -     |  |
|                            |  |                    | 4.0mm Temp      | Intercept |  | 0.47       | 0.63  | 0.66 | -                    | -  | -         | -     | Intercept | 0.47         | 0.55  | 0.58 | -                    | -  | -  | -     |  |
|                            |  | Low-E/Air          | 3.0mm Temp      | Intercept |  | 0.33       | 0.32  | 0.57 | -                    | -  | -         | -     | Intercept | 0.33         | 0.28  | 0.50 | -                    | -  | -  | -     |  |
|                            |  |                    | 4.0mm Temp      | Intercept |  | 0.33       | 0.32  | 0.56 | -                    | -  | -         | -     | Intercept | 0.33         | 0.28  | 0.49 | -                    | -  | -  | -     |  |
|                            |  | Low-E/Argon        | 3.0mm Temp      | Intercept |  | 0.29       | 0.31  | 0.57 | N                    | NC | -         | -     | Intercept | 0.29         | 0.28  | 0.50 | N                    | NC | -  | -     |  |
|                            |  |                    | 4.0mm Temp      | Intercept |  | 0.29       | 0.31  | 0.56 | N                    | NC | -         | -     | Intercept | 0.29         | 0.28  | 0.49 | N                    | NC | -  | -     |  |
|                            |  | Low-E PS/Air       | 3.0mm Temp      | Intercept |  | 0.33       | 0.46  | 0.58 | -                    | -  | -         | -     | Intercept | 0.33         | 0.41  | 0.50 | -                    | -  | -  | -     |  |
|                            |  |                    | 4.0mm Temp      | Intercept |  | 0.33       | 0.46  | 0.57 | -                    | -  | -         | -     | Intercept | 0.33         | 0.40  | 0.50 | -                    | -  | -  | -     |  |
|                            |  | Low-E PS/Argon     | 3.0mm Temp      | Intercept |  | 0.29       | 0.47  | 0.58 | -                    | -  | -         | -     | Intercept | 0.29         | 0.41  | 0.50 | -                    | -  | -  | -     |  |
|                            |  |                    | 4.0mm Temp      | Intercept |  | 0.29       | 0.46  | 0.57 | -                    | -  | -         | -     | Intercept | 0.29         | 0.41  | 0.50 | -                    | -  | -  | -     |  |
|                            | Low-E2+ PS/Air   | 3.0mm Temp         | Intercept       | 0.28      | 0.37                                     | 0.56       | N     | NC   | -                    | -  | Intercept | 0.28  | 0.33      | 0.49         | N     | NC   | -                    | -  |    |       |  |
|                            |  | 4.0mm Temp         | Intercept       | 0.28      | 0.37                                     | 0.55       | N     | NC   | -                    | -  | Intercept | 0.28  | 0.33      | 0.49         | N     | NC   | -                    | -  |    |       |  |
|                            | Low-E2+ PS/Argon   | 3.0mm Temp         | Intercept       | 0.25      | 0.37                                     | 0.56       | N     | NC   | -                    | -  | Intercept | 0.25  | 0.33      | 0.49         | N     | NC   | -                    | -  |    |       |  |
|                            |  | 4.0mm Temp         | Intercept       | 0.25      | 0.37                                     | 0.55       | N     | NC   | -                    | -  | Intercept | 0.25  | 0.33      | 0.49         | N     | NC   | -                    | -  |    |       |  |
|                            | Low-E SC/Air   | 3.0mm Temp         | Intercept       | 0.32      | 0.23                                     | 0.45       | -     | -    | -                    | -  | Intercept | 0.32  | 0.21      | 0.39         | -     | -    | -                    | -  |    |       |  |
|                            |  | 4.0mm Temp         | Intercept       | 0.33      | 0.23                                     | 0.45       | -     | -    | -                    | -  | Intercept | 0.33  | 0.21      | 0.39         | -     | -    | -                    | -  |    |       |  |
|                            | Low-E SC/Argon   | 3.0mm Temp         | Intercept       | 0.29      | 0.23                                     | 0.45       | N     | NC   | SC                   | S  | Intercept | 0.29  | 0.20      | 0.39         | N     | NC   | SC                   | S  |    |       |  |
|                            |  | 4.0mm Temp         | Intercept       | 0.29      | 0.23                                     | 0.45       | N     | NC   | SC                   | S  | Intercept | 0.29  | 0.20      | 0.39         | N     | NC   | SC                   | S  |    |       |  |
|                            | Gliding Patio Door Blinds-Between-the-Glass Insert Frame         | Low-E/Air          | 3.0mm Temp      | Intercept | SIL-N-60                                 | 0.36       | 0.28  | 0.51 | -                    | -  | -         | -     | Intercept | -            | -     | -    | -                    | -  | -  |       |  |
|                            | Gliding Patio Door PG50 HVHZ Upgrade Insert Frame                | Clear/Air          | 3.0mm Temp      | Intercept | SIL-N-60                                 | 0.47       | 0.64  | 0.66 | -                    | -  | -         | -     | Intercept | 0.47         | 0.56  | 0.58 | -                    | -  | -  | -     |  |
|                            |  |                    | 4.0mm Temp      | Intercept |  | 0.48       | 0.63  | 0.66 | -                    | -  | -         | -     | Intercept | 0.48         | 0.55  | 0.58 | -                    | -  | -  | -     |  |
|                            |  | Low-E/Air          | 3.0mm Temp      | Intercept |  | 0.33       | 0.32  | 0.57 | -                    | -  | -         | -     | Intercept | 0.33         | 0.28  | 0.50 | -                    | -  | -  | -     |  |
|                            |  |                    | 4.0mm Temp      | Intercept |  | 0.34       | 0.32  | 0.56 | -                    | -  | -         | -     | Intercept | 0.34         | 0.28  | 0.49 | -                    | -  | -  | -     |  |
|                            |  | Low-E/Argon        | 3.0mm Temp      | Intercept |  | 0.29       | 0.31  | 0.57 | N                    | NC | -         | -     | Intercept | 0.29         | 0.28  | 0.50 | N                    | NC | -  | -     |  |
|                            |  |                    | 4.0mm Temp      | Intercept |  | 0.29       | 0.31  | 0.56 | N                    | NC | -         | -     | Intercept | 0.29         | 0.28  | 0.49 | N                    | NC | -  | -     |  |
|                            |  | Low-E PS/Air       | 3.0mm Temp      | Intercept |  | 0.33       | 0.46  | 0.58 | -                    | -  | -         | -     | Intercept | 0.33         | 0.41  | 0.50 | -                    | -  | -  | -     |  |
|                            |  |                    | 4.0mm Temp      | Intercept |  | 0.34       | 0.46  | 0.57 | -                    | -  | -         | -     | Intercept | 0.34         | 0.40  | 0.50 | -                    | -  | -  | -     |  |
|                            |  | Low-E PS/Argon     | 3.0mm Temp      | Intercept |  | 0.30       | 0.47  | 0.58 | -                    | -  | -         | -     | Intercept | 0.30         | 0.41  | 0.50 | -                    | -  | -  | -     |  |
|                            |  |                    | 4.0mm Temp      | Intercept |  | 0.30       | 0.46  | 0.57 | -                    | -  | -         | -     | Intercept | 0.30         | 0.41  | 0.50 | -                    | -  | -  | -     |  |
|                            | Low-E2+ PS/Air   | 3.0mm Temp         | Intercept       | 0.28      | 0.37                                     | 0.56       | N     | NC   | -                    | -  | Intercept | 0.28  | 0.33      | 0.49         | N     | NC   | -                    | -  |    |       |  |
|                            |  | 4.0mm Temp         | Intercept       | 0.29      | 0.37                                     | 0.55       | N     | NC   | -                    | -  | Intercept | 0.29  | 0.33      | 0.49         | N     | NC   | -                    | -  |    |       |  |
|                            | Low-E2+ PS/Argon   | 3.0mm Temp         | Intercept       | 0.26      | 0.37                                     | 0.56       | N     | NC   | -                    | -  | Intercept | 0.26  | 0.33      | 0.49         | N     | NC   | -                    | -  |    |       |  |
|                            |  | 4.0mm Temp         | Intercept       | 0.26      | 0.37                                     | 0.55       | N     | NC   | -                    | -  | Intercept | 0.26  | 0.33      | 0.49         | N     | NC   | -                    | -  |    |       |  |
|                            | Low-E SC/Air   | 3.0mm Temp         | Intercept       | 0.33      | 0.23                                     | 0.45       | -     | -    | -                    | -  | Intercept | 0.33  | 0.21      | 0.39         | -     | -    | -                    | -  |    |       |  |
|                            |  | 4.0mm Temp         | Intercept       | 0.33      | 0.23                                     | 0.45       | -     | -    | -                    | -  | Intercept | 0.33  | 0.21      | 0.39         | -     | -    | -                    | -  |    |       |  |
|                            | Low-E SC/Argon   | 3.0mm Temp         | Intercept       | 0.29      | 0.23                                     | 0.45       | N     | NC   | SC                   | S  | Intercept | 0.29  | 0.20      | 0.39         | N     | NC   | SC                   | S  |    |       |  |
|                            |  | 4.0mm Temp         | Intercept       | 0.29      | 0.23                                     | 0.45       | N     | NC   | SC                   | S  | Intercept | 0.29  | 0.20      | 0.39         | N     | NC   | SC                   | S  |    |       |  |
|                            | Gliding Patio Door Blinds-Between-the-Glass Upgrade Insert Frame | Low-E/Air          | 3.0mm Temp      | Intercept | SIL-N-60                                 | 0.36       | 0.28  | 0.51 | -                    | -  | -         | -     | Intercept | -            | -     | -    | -                    | -  | -  |       |  |
|                            | Gliding Patio Door Sidelight Insert Frame                        | Clear/Air          | 3.0mm Temp      | Intercept | SIL-N-63                                 | 0.45       | 0.62  | 0.64 | -                    | -  | -         | -     | Intercept | 0.45         | 0.55  | 0.57 | -                    | -  | -  | -     |  |
|                            |  |                    | 4.0mm Temp      | Intercept |  | 0.46       | 0.60  | 0.64 | -                    | -  | -         | -     | Intercept | 0.46         | 0.54  | 0.57 | -                    | -  | -  | -     |  |
|                            |  | Low-E/Air          | 3.0mm Temp      | Intercept |  | 0.32       | 0.30  | 0.55 | -                    | -  | -         | -     | Intercept | 0.32         | 0.28  | 0.49 | -                    | -  | -  | -     |  |
|                            |  |                    | 4.0mm Temp      | Intercept |  | 0.32       | 0.30  | 0.54 | -                    | -  | -         | -     | Intercept | 0.32         | 0.27  | 0.48 | -                    | -  | -  | -     |  |
|                            |  | Low-E/Argon        | 3.0mm Temp      | Intercept |  | 0.28       | 0.30  | 0.55 | -                    | NC | -         | -     | Intercept | 0.28         | 0.27  | 0.49 | -                    | NC | -  | -     |  |
|                            |  |                    | 4.0mm Temp      | Intercept |  | 0.28       | 0.30  | 0.54 | -                    | NC | -         | -     | Intercept | 0.28         | 0.27  | 0.48 | -                    | NC | -  | -     |  |
|                            |  | Low-E PS/Air       | 3.0mm Temp      | Intercept |  | 0.32       | 0.45  | 0.55 | -                    | -  | -         | -     | Intercept | 0.32         | 0.40  | 0.49 | -                    | -  | -  | -     |  |
|                            |  |                    | 4.0mm Temp      | Intercept |  | 0.32       | 0.44  | 0.55 | -                    | -  | -         | -     | Intercept | 0.32         | 0.40  | 0.49 | -                    | -  | -  | -     |  |
|                            |  | Low-E PS/Argon     | 3.0mm Temp      | Intercept |  | 0.28       | 0.45  | 0.55 | N                    | -  | -         | -     | Intercept | 0.28         | 0.41  | 0.49 | N                    | -  | -  | -     |  |
|                            |  |                    | 4.0mm Temp      | Intercept |  | 0.29       | 0.44  | 0.55 | N                    | -  | -         | -     | Intercept | 0.29         | 0.40  | 0.49 | N                    | NC | -  | -     |  |
|                            | Low-E2+ PS/Air   | 3.0mm Temp         | Intercept       | 0.27      | 0.36                                     | 0.54       | N     | NC   | -                    | -  | Intercept | 0.27  | 0.32      | 0.48         | N     | NC   | -                    | -  |    |       |  |
|                            |  | 4.0mm Temp         | Intercept       | 0.28      | 0.35                                     | 0.53       | N     | NC   | -                    | -  | Intercept | 0.28  | 0.32      | 0.48         | N     | NC   | -                    | -  |    |       |  |
|                            | Low-E2+ PS/Argon   | 3.0mm Temp         | Intercept       | 0.25      | 0.36                                     | 0.54       | N     | NC   | -                    | -  | Intercept | 0.25  | 0.32      | 0.48         | N     | NC   | -                    | -  |    |       |  |
|                            |  | 4.0mm Temp         | Intercept       | 0.25      | 0.35                                     | 0.53       | N     | NC   | -                    | -  | Intercept | 0.25  | 0.32      | 0.48         | N     | NC   | -                    | -  |    |       |  |
|                            | Low-E SC/Air   | 3.0mm Temp         | Intercept       | 0.32      | 0.22                                     | 0.43       | -     | -    | -                    | S  | Intercept | 0.32  | 0.20      | 0.39         | -     | -    | -                    | S  |    |       |  |
|                            |  | 4.0mm Temp         | Intercept       | 0.32      | 0.22                                     | 0.43       | -     | -    | -                    | S  | Intercept | 0.32  | 0.20      | 0.38         | -     | -    | -                    | S  |    |       |  |
|                            | Low-E SC/Argon   | 3.0mm Temp         | Intercept       | 0.28      | 0.22                                     | 0.43       | -     | NC   | SC                   | S  | Intercept | 0.28  | 0.20      | 0.39         | -     | NC   | SC                   | S  |    |       |  |
|                            |  | 4.0mm Temp         | Intercept       | 0.28      | 0.22                                     | 0.43       | -     | NC   | SC                   | S  | Intercept | 0.28  | 0.20      | 0.38         | -     | NC   | SC                   | S  |    |       |  |
|                            | Gliding Patio Door Transom Insert Frame                          | Clear/Air          | 3.0mm Temp      | Intercept | SIL-N-64                                 | 0.45       | 0.62  | 0.64 | -                    | -  | -         | -     | Intercept | 0.45         | 0.56  | 0.57 | -                    | -  | -  | -     |  |
|                            |  |                    | 4.0mm Temp      | Intercept |  | 0.46       | 0.61  | 0.64 | -                    | -  | -         | -     | Intercept | 0.46         | 0.55  | 0.57 | -                    | -  | -  | -     |  |
|                            |  | Low-E/Air          | 3.0mm Temp      | Intercept |  | 0.31       | 0.31  | 0.55 | -                    | -  | -         | -     | Intercept | 0.31         | 0.28  | 0.49 | -                    | -  | -  | -     |  |
|                            |  |                    | 4.0mm Temp      | Intercept |  | 0.32       | 0.31  | 0.55 | -                    | -  | -         | -     | Intercept | 0.32         | 0.28  | 0.49 | -                    | -  | -  | -     |  |
|                            |  | Low-E/Argon        | 3.0mm Temp      | Intercept |  | 0.28       | 0.30  | 0.55 | -                    | NC | -         | -     | Intercept | 0.28         | 0.28  | 0.49 | -                    | NC | -  | -     |  |
|                            |  |                    | 4.0mm Temp      | Intercept |  | 0.28       | 0.30  | 0.55 | -                    | NC | -         | -     | Intercept | 0.28         | 0.27  | 0.49 | -                    | NC | -  | -     |  |
|                            |  | Low-E PS/Air       | 3.0mm Temp      | Intercept |  | 0.32       | 0.45  | 0.56 | -                    | -  | -         | -     | Intercept | 0.32         | 0.41  | 0.50 | -                    | -  | -  | -     |  |
|                            |  |                    | 4.0mm Temp      | Intercept |  | 0.32       | 0.44  | 0.55 | -                    | -  | -         | -     | Intercept | 0.32         | 0.40  | 0.49 | -                    | -  | -  | -     |  |
|                            |  | Low-E PS/Argon     | 3.0mm Temp      | Intercept |  | 0.28       | 0.45  | 0.56 | N                    | -  | -         | -     | Intercept | 0.28         | 0.41  | 0.50 | N                    | -  | -  | -     |  |
|                            |  |                    | 4.0mm Temp      | Intercept |  | 0.28       | 0.45  | 0.55 | N                    | -  | -         | -     | Intercept | 0.28         | 0.40  | 0.49 | N                    | NC | -  | -     |  |
|                            | Low-E2+ PS/Air   | 3.0mm Temp         | Intercept       | 0.27      | 0.36                                     | 0.54       | N     | NC   | -                    | -  | Intercept | 0.27  | 0.33      | 0.48         | N     | NC   | -                    | -  |    |       |  |
|                            |  | 4.0mm Temp         | Intercept       | 0.28      | 0.36                                     | 0.54       | N     | NC   | -                    | -  | Intercept | 0.28  | 0.32      | 0.48         | N     | NC   | -                    | -  |    |       |  |
|                            | Low-E2+ PS/Argon   | 3.0mm Temp         | Intercept       | 0.25      | 0.36                                     | 0.54       | N     | NC   | -                    | -  | Intercept | 0.25  | 0.33      | 0.48         | N     | NC   | -                    | -  |    |       |  |
|                            |  | 4.0mm Temp         | Intercept       | 0.25      | 0.36                                     | 0.54       | N     | NC   | -                    | -  | Intercept | 0.25  | 0.32      | 0.48         | N     | NC   | -                    | -  |    |       |  |
|                            | Low-E SC/Air   | 3.0mm Temp         | Intercept       | 0.31      | 0.23                                     | 0.44       | -     | -    | -                    | S  | Intercept | 0.31  | 0.20      | 0.39         | -     | -    | -                    | S  |    |       |  |
|                            |  | 4.0mm Temp         | Intercept       | 0.32      | 0.23                                     | 0.43       | -     | -    | -                    | S  | Intercept | 0.32  | 0.21      | 0.39         | -     | -    | -                    | S  |    |       |  |
|                            | Low-E SC/Argon   | 3.0mm Temp         | Intercept       | 0.28      | 0.22                                     | 0.44       | -     | NC   | SC                   | S  | Intercept | 0.28  | 0.20      | 0.39         | -     | NC   | SC                   | S  |    |       |  |
|                            |  | 4.0mm Temp         | Intercept       | 0.28      | 0.22                                     | 0.43       | -     | NC   | SC                   | S  | Intercept | 0.28  | 0.20      | 0.39         | -     | NC   | SC                   | S  |    |       |  |

| Silver Line Product Series               | Silver Line Product Type  | Glass Type/ Infill | Glass Thickness | Spacer    | NFRC Certified Products Directory Number | No Grilles            |                   |                  |                      |    |    |       |           | With Grilles          |                   |                  |                      |    |    |       |  |
|--|---|--------------------|-----------------|-----------|--|-----------------------|-------------------|------------------|----------------------|----|----|-------|-----------|-----------------------|-------------------|------------------|----------------------|----|----|-------|--|
|  |   |                    |                 |           |  | U-Factor <sup>1</sup> | SHGC <sup>2</sup> | VLT <sup>3</sup> | US ENERGY STAR v 6.0 |    |    |       | Spacer    | U-Factor <sup>1</sup> | SHGC <sup>2</sup> | VLT <sup>3</sup> | US ENERGY STAR v 6.0 |    |    |       |  |
|  |   |                    |                 |           |  |                       |                   |                  | North                | NC | SC | South |           |                       |                   |                  | North                | NC | SC | South |  |
| V1 Series with Coastal Watch™ Protection | Single-Hung HVHZ Masonry Flange or Nailing Flange Frame           | Low-E/Air          | Lami/3.0mm      | Intercept | SIL-N-3                                  | 0.39                  | 0.31              | 0.55             | -                    | -  | -  | -     | Intercept | 0.42                  | 0.28              | 0.49             | -                    | -  | -  | -     |  |
|  |   | Low-E/Argon        | Lami/3.0mm      | Intercept |  | 0.34                  | 0.31              | 0.55             | -                    | -  | -  | -     | Intercept | 0.36                  | 0.28              | 0.49             | -                    | -  | -  | -     |  |
|  |   | Low-E SC/Air       | Lami/3.0mm      | Intercept |  | 0.39                  | 0.23              | 0.44             | -                    | -  | -  | S     | Intercept | 0.41                  | 0.21              | 0.39             | -                    | -  | -  | -     |  |
|  |   | Low-E SC/Argon     | Lami/3.0mm      | Intercept |  | 0.34                  | 0.23              | 0.44             | -                    | -  | -  | S     | Intercept | 0.36                  | 0.21              | 0.39             | -                    | -  | -  | S     |  |
|  | Single-Hung Picture HVHZ Masonry Flange or Nailing Flange         | Low-E/Air          | Lami/3.0mm      | SS        | SIL-N-59                                 | 0.38                  | 0.33              | 0.57             | -                    | -  | -  | -     | SS        | 0.42                  | 0.29              | 0.51             | -                    | -  | -  | -     |  |
|  |   | Low-E/Argon        | Lami/3.0mm      | SS        |  | 0.33                  | 0.32              | 0.57             | -                    | -  | -  | -     | SS        | 0.36                  | 0.29              | 0.51             | -                    | -  | -  | -     |  |
|  |   | Low-E SC/Air       | Lami/3.0mm      | SS        |  | 0.38                  | 0.24              | 0.45             | -                    | -  | -  | S     | SS        | 0.42                  | 0.22              | 0.40             | -                    | -  | -  | -     |  |
|  |   | Low-E SC/Argon     | Lami/3.0mm      | SS        |  | 0.33                  | 0.24              | 0.45             | -                    | -  | -  | S     | SS        | 0.36                  | 0.22              | 0.40             | -                    | -  | -  | S     |  |
|  | Single-Hung Specialty Shape HVHZ Masonry Flange or Nailing Flange | Low-E/Air          | Lami/3.0mm      | SS        | SIL-N-59                                 | 0.38                  | 0.33              | 0.57             | -                    | -  | -  | -     | SS        | 0.42                  | 0.29              | 0.51             | -                    | -  | -  | -     |  |
|  |   | Low-E/Argon        | Lami/3.0mm      | SS        |  | 0.33                  | 0.32              | 0.57             | -                    | -  | -  | -     | SS        | 0.36                  | 0.29              | 0.51             | -                    | -  | -  | -     |  |
|  |   | Low-E SC/Air       | Lami/3.0mm      | SS        |  | 0.38                  | 0.24              | 0.45             | -                    | -  | -  | S     | SS        | 0.42                  | 0.22              | 0.40             | -                    | -  | -  | -     |  |
|  |   | Low-E SC/Argon     | Lami/3.0mm      | SS        |  | 0.33                  | 0.24              | 0.45             | -                    | -  | -  | S     | SS        | 0.36                  | 0.22              | 0.40             | -                    | -  | -  | S     |  |

**KEY**  
2.2mm = Single Strength (SS)  
3.0mm = Double Strength (DS)  
4.0mm = Triple Strength (TS)  
Lami = .090 Laminated Glass  
(sacrificial glass type also indicated)  
Temp = Tempered  
SHGC = Solar Heat Gain Coefficient  
VT = Visible Transmittance  
SS = SuperSpacer

- 1) U-Factor defines the amount of heat loss through the total unit in BTU/hr/ft<sup>2</sup>.°F. The lower the value, the less heat is lost through the entire product. Window values represent non-tempered glass unless otherwise noted. Use of tempered glass can increase U-Factor ratings. Door values represent tempered glass.
  - 2) Solar Heat Gain Coefficient (SHGC) defines the fraction of solar radiation admitted through the glass both directly transmitted and absorbed and subsequently released inward. The lower the value, the less heat is transmitted through the product.
  - 3) Visible Light Transmittance (VLT) measures how much light comes through a product (glass and frame). The higher the value, from 0 to 1, the more daylight the product lets in over the product's total unit area. Visible Light Transmittance is measured over the 380 to 760 nanometer portion of the solar spectrum.
- NFRC ratings are based on modeling by a third party agency as validated by an independent test lab in compliance with NFRC program and procedural requirements.
  - \* Optional foam in frame included.