

## WINDOWS & DOORS LISTING PROGRAM

**Customer:** KV Custom Windows & Doors Ltd.  
**Class:** Sliding Plastic Doors – Energy Performance  
Sliding Plastic Doors – Physical Performance  
**Location:** Vaughan, Ontario  
**Website:** [www.kvcustomwd.com](http://www.kvcustomwd.com)

**Listing No.** W570-2  
**Report No.** W570-2 ED2  
**Project No.** W570-2 ED2  
**Effective Date:** May 27, 2019  
**Last Revised Date:** June 24, 2019  
**Expires:** N/A

|                              |                              |                                                                                                                             |
|------------------------------|------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| <b>Standards:</b>            | CSA A440.2                   | <i>Fenestration Energy Performance</i>                                                                                      |
| Performance Requirements of: | AAMA/WDMA/CSA 101/I.S.2/A440 | <i>North American Fenestration Standard / Specification for windows, doors, and skylights (NAFS)</i>                        |
| Performance Requirements of: | CSA A440S1                   | <i>Canadian Supplement to NAFS - North American Fenestration Standard / Specification for windows, doors, and skylights</i> |

**Product:** Sliding Plastic Doors

**Markings:** Products are marked with the following content in a permanent manner where it is readily visible after installation:

- a) Manufacturer's name, Trademark or other recognized symbol or identification.
- b) QAI file Number: W570
- c) QAI logo shown here:



- d) "Evaluation for energy performance in accordance with CSA A440.2" and "Evaluation for physical performance in accordance with AAMA/WDMA/CSA 101/I.S.2/A440 and CSA A440S1"
- e) "Évalué pour la performance d'énergie en accord à la norme CSA A440.2" and "Évalué pour la performance de physique en accord à la norme AAMA/WDMA/CSA 101/I.S.2/A440 et CSA A440S1"

**Note:** product models and ratings are listed on the following pages.

## MODELS / RATINGS:

### Imperial Series Small Sash Patio Door (2 Panel)

| Primary Designator                                                                      | DP Positive         | DP Negative           | Water Penetration Pressure | Air Leakage (Canada) |
|-----------------------------------------------------------------------------------------|---------------------|-----------------------|----------------------------|----------------------|
| Class R – PG35:<br>Size tested 2426 x 2019 mm (~96 x 80 in) –<br>Sliding Door (Type SD) | 1680 Pa<br>(35 psf) | -1680 Pa<br>(-35 psf) | 400 Pa<br>(8.35 psf)       | A3 Level             |

| Glass Option # | Model Code                                            | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|-------------------------------------------------------|------------------------------|---------------|
| 1              | KVW-IMPDSMML-2P-3,272(2)-19AR90SE-3,CL-R              | 1.78                         | 18            |
| 2              | KVW-IMPDSMML-2P-3,180(2)-19AR90SE-3,I89(4)-R          | 1.56                         | 31            |
| 3              | KVW-IMPDSMML-2P-3,272(2)-19AR90SE-3,I89(4)-R          | 1.54                         | 22            |
| 4              | KVW-IMPDSMML-2P-3,366(2)-19AR90SE-3,I89(4)-R          | 1.52                         | 18            |
| 5              | KVW-IMPDSMML-2P-3,180(2)-3,CL-3,CL-13AR90SE-R         | 1.49                         | 32            |
| 6              | KVW-IMPDSMML-2P-3,272(2)-3,CL-3,CL-13AR90SE-R         | 1.47                         | 23            |
| 7              | KVW-IMPDSMML-2P-3,366(2)-3,CL-3,CL-13AR90SE-R         | 1.45                         | 18            |
| 8              | KVW-IMPDSMML-2P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R     | 1.34                         | 34            |
| 9              | KVW-IMPDSMML-2P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R     | 1.32                         | 26            |
| 10             | KVW-IMPDSMML-2P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R     | 1.31                         | 21            |
| 11             | KVW-IMPDSMML-2P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R | 1.17                         | 36            |
| 12             | KVW-IMPDSMML-2P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R | 1.16                         | 29            |
| 13             | KVW-IMPDSMML-2P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R | 1.15                         | 24            |
| 14             | KVW-IMPDSMML-2P-3,272(2)-19AR90SE-3,CL                | 1.62                         | 21            |
| 15             | KVW-IMPDSMML-2P-3,180(2)-19AR90SE-3,I89(4)            | 1.40                         | 35            |
| 16             | KVW-IMPDSMML-2P-3,272(2)-19AR90SE-3,I89(4)            | 1.38                         | 26            |
| 17             | KVW-IMPDSMML-2P-3,366(2)-19AR90SE-3,I89(4)            | 1.36                         | 21            |
| 18             | KVW-IMPDSMML-2P-3,180(2)-3,CL-3,CL-13AR90SE           | 1.35                         | 35            |
| 19             | KVW-IMPDSMML-2P-3,272(2)-3,CL-3,CL-13AR90SE           | 1.32                         | 27            |
| 20             | KVW-IMPDSMML-2P-3,366(2)-3,CL-3,CL-13AR90SE           | 1.31                         | 21            |
| 21             | KVW-IMPDSMML-2P-3,180(2)-3,CL-3,I89(6)-13AR90SE       | 1.21                         | 37            |
| 22             | KVW-IMPDSMML-2P-3,272(2)-3,CL-3,I89(6)-13AR90SE       | 1.18                         | 29            |
| 23             | KVW-IMPDSMML-2P-3,366(2)-3,CL-3,I89(6)-13AR90SE       | 1.18                         | 24            |
| 24             | KVW-IMPDSMML-2P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE   | 1.04                         | 39            |
| 25             | KVW-IMPDSMML-2P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE   | 1.02                         | 32            |
| 26             | KVW-IMPDSMML-2P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE   | 1.01                         | 27            |
| 27             | KVW-IMPDSMML-2P-3,272(2)-19AR90SE-3,CL-R-G1<1         | 1.78                         | 18            |
| 28             | KVW-IMPDSMML-2P-3,180(2)-19AR90SE-3,I89(4)-R-G1<1     | 1.56                         | 31            |
| 29             | KVW-IMPDSMML-2P-3,272(2)-19AR90SE-3,I89(4)-R-G1<1     | 1.54                         | 22            |



| Glass Option # | Model Code                                                 | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|------------------------------------------------------------|------------------------------|---------------|
| 30             | KVW-IMPDSMML-2P-3,366(2)-19AR90SE-3,I89(4)-R-G1<1          | 1.52                         | 18            |
| 31             | KVW-IMPDSMML-2P-3,180(2)-3,CL-3,CL-13AR90SE-R-G1<1         | 1.49                         | 32            |
| 32             | KVW-IMPDSMML-2P-3,272(2)-3,CL-3,CL-13AR90SE-R-G1<1         | 1.47                         | 23            |
| 33             | KVW-IMPDSMML-2P-3,366(2)-3,CL-3,CL-13AR90SE-R-G1<1         | 1.45                         | 18            |
| 34             | KVW-IMPDSMML-2P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G1<1     | 1.34                         | 34            |
| 35             | KVW-IMPDSMML-2P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G1<1     | 1.32                         | 26            |
| 36             | KVW-IMPDSMML-2P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G1<1     | 1.31                         | 21            |
| 37             | KVW-IMPDSMML-2P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G1<1 | 1.17                         | 36            |
| 38             | KVW-IMPDSMML-2P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G1<1 | 1.16                         | 29            |
| 39             | KVW-IMPDSMML-2P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G1<1 | 1.15                         | 24            |
| 40             | KVW-IMPDSMML-2P-3,272(2)-19AR90SE-3,CL-G1<1                | 1.62                         | 21            |
| 41             | KVW-IMPDSMML-2P-3,180(2)-19AR90SE-3,I89(4)-G1<1            | 1.40                         | 35            |
| 42             | KVW-IMPDSMML-2P-3,272(2)-19AR90SE-3,I89(4)-G1<1            | 1.38                         | 26            |
| 43             | KVW-IMPDSMML-2P-3,366(2)-19AR90SE-3,I89(4)-G1<1            | 1.36                         | 21            |
| 44             | KVW-IMPDSMML-2P-3,180(2)-3,CL-3,CL-13AR90SE-G1<1           | 1.35                         | 35            |
| 45             | KVW-IMPDSMML-2P-3,272(2)-3,CL-3,CL-13AR90SE-G1<1           | 1.32                         | 27            |
| 46             | KVW-IMPDSMML-2P-3,366(2)-3,CL-3,CL-13AR90SE-G1<1           | 1.31                         | 21            |
| 47             | KVW-IMPDSMML-2P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G1<1       | 1.21                         | 37            |
| 48             | KVW-IMPDSMML-2P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G1<1       | 1.18                         | 29            |
| 49             | KVW-IMPDSMML-2P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G1<1       | 1.18                         | 24            |
| 50             | KVW-IMPDSMML-2P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G1<1   | 1.04                         | 39            |
| 51             | KVW-IMPDSMML-2P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G1<1   | 1.02                         | 32            |
| 52             | KVW-IMPDSMML-2P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G1<1   | 1.01                         | 27            |
| 53             | KVW-IMPDSMML-2P-3,272(2)-19AR90SE-3,CL-R-G2≥1              | 1.78                         | 18            |
| 54             | KVW-IMPDSMML-2P-3,180(2)-19AR90SE-3,I89(4)-R-G2≥1          | 1.56                         | 31            |
| 55             | KVW-IMPDSMML-2P-3,272(2)-19AR90SE-3,I89(4)-R-G2≥1          | 1.54                         | 22            |
| 56             | KVW-IMPDSMML-2P-3,366(2)-19AR90SE-3,I89(4)-R-G2≥1          | 1.52                         | 18            |
| 57             | KVW-IMPDSMML-2P-3,180(2)-3,CL-3,CL-13AR90SE-R-G2≥1         | 1.49                         | 32            |
| 58             | KVW-IMPDSMML-2P-3,272(2)-3,CL-3,CL-13AR90SE-R-G2≥1         | 1.47                         | 23            |
| 59             | KVW-IMPDSMML-2P-3,366(2)-3,CL-3,CL-13AR90SE-R-G2≥1         | 1.45                         | 18            |
| 60             | KVW-IMPDSMML-2P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G2≥1     | 1.34                         | 34            |
| 61             | KVW-IMPDSMML-2P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G2≥1     | 1.32                         | 26            |
| 62             | KVW-IMPDSMML-2P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G2≥1     | 1.31                         | 21            |
| 63             | KVW-IMPDSMML-2P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G2≥1 | 1.17                         | 36            |
| 64             | KVW-IMPDSMML-2P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G2≥1 | 1.16                         | 29            |
| 65             | KVW-IMPDSMML-2P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G2≥1 | 1.15                         | 24            |
| 66             | KVW-IMPDSMML-2P-3,272(2)-19AR90SE-3,CL-G2≥1                | 1.62                         | 21            |
| 67             | KVW-IMPDSMML-2P-3,180(2)-19AR90SE-3,I89(4)-G2≥1            | 1.40                         | 35            |
| 68             | KVW-IMPDSMML-2P-3,272(2)-19AR90SE-3,I89(4)-G2≥1            | 1.38                         | 26            |



| Glass Option # | Model Code                                                 | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|------------------------------------------------------------|------------------------------|---------------|
| 69             | KVW-IMPDSMML-2P-3,366(2)-19AR90SE-3,I89(4)-G2≥1            | 1.36                         | 21            |
| 70             | KVW-IMPDSMML-2P-3,180(2)-3,CL-3,CL-13AR90SE-G2≥1           | 1.35                         | 35            |
| 71             | KVW-IMPDSMML-2P-3,272(2)-3,CL-3,CL-13AR90SE-G2≥1           | 1.32                         | 27            |
| 72             | KVW-IMPDSMML-2P-3,366(2)-3,CL-3,CL-13AR90SE-G2≥1           | 1.31                         | 21            |
| 73             | KVW-IMPDSMML-2P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G2≥1       | 1.21                         | 37            |
| 74             | KVW-IMPDSMML-2P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G2≥1       | 1.18                         | 29            |
| 75             | KVW-IMPDSMML-2P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G2≥1       | 1.18                         | 24            |
| 76             | KVW-IMPDSMML-2P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G2≥1   | 1.04                         | 39            |
| 77             | KVW-IMPDSMML-2P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G2≥1   | 1.02                         | 32            |
| 78             | KVW-IMPDSMML-2P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G2≥1   | 1.01                         | 27            |
| 79             | KVW-IMPDSMML-2P-3,272(2)-19AR90SE-3,CL-R-G3<1              | 1.78                         | 18            |
| 80             | KVW-IMPDSMML-2P-3,180(2)-19AR90SE-3,I89(4)-R-G3<1          | 1.56                         | 31            |
| 81             | KVW-IMPDSMML-2P-3,272(2)-19AR90SE-3,I89(4)-R-G3<1          | 1.54                         | 22            |
| 82             | KVW-IMPDSMML-2P-3,366(2)-19AR90SE-3,I89(4)-R-G3<1          | 1.52                         | 18            |
| 83             | KVW-IMPDSMML-2P-3,180(2)-3,CL-3,CL-13AR90SE-R-G3<1         | 1.53                         | 28            |
| 84             | KVW-IMPDSMML-2P-3,272(2)-3,CL-3,CL-13AR90SE-R-G3<1         | 1.51                         | 20            |
| 85             | KVW-IMPDSMML-2P-3,366(2)-3,CL-3,CL-13AR90SE-R-G3<1         | 1.49                         | 16            |
| 86             | KVW-IMPDSMML-2P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G3<1     | 1.37                         | 30            |
| 87             | KVW-IMPDSMML-2P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G3<1     | 1.35                         | 24            |
| 88             | KVW-IMPDSMML-2P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G3<1     | 1.34                         | 19            |
| 89             | KVW-IMPDSMML-2P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G3<1 | 1.19                         | 33            |
| 90             | KVW-IMPDSMML-2P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G3<1 | 1.18                         | 27            |
| 91             | KVW-IMPDSMML-2P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G3<1 | 1.17                         | 23            |
| 92             | KVW-IMPDSMML-2P-3,272(2)-19AR90SE-3,CL-G3<1                | 1.62                         | 21            |
| 93             | KVW-IMPDSMML-2P-3,180(2)-19AR90SE-3,I89(4)-G3<1            | 1.40                         | 35            |
| 94             | KVW-IMPDSMML-2P-3,272(2)-19AR90SE-3,I89(4)-G3<1            | 1.38                         | 26            |
| 95             | KVW-IMPDSMML-2P-3,366(2)-19AR90SE-3,I89(4)-G3<1            | 1.36                         | 21            |
| 96             | KVW-IMPDSMML-2P-3,180(2)-3,CL-3,CL-13AR90SE-G3<1           | 1.39                         | 30            |
| 97             | KVW-IMPDSMML-2P-3,272(2)-3,CL-3,CL-13AR90SE-G3<1           | 1.36                         | 23            |
| 98             | KVW-IMPDSMML-2P-3,366(2)-3,CL-3,CL-13AR90SE-G3<1           | 1.35                         | 19            |
| 99             | KVW-IMPDSMML-2P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G3<1       | 1.23                         | 33            |
| 100            | KVW-IMPDSMML-2P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G3<1       | 1.21                         | 27            |
| 101            | KVW-IMPDSMML-2P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G3<1       | 1.20                         | 22            |
| 102            | KVW-IMPDSMML-2P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G3<1   | 1.05                         | 36            |
| 103            | KVW-IMPDSMML-2P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G3<1   | 1.04                         | 30            |
| 104            | KVW-IMPDSMML-2P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G3<1   | 1.03                         | 26            |
| 105            | KVW-IMPDSMML-2P-3,272(2)-19AR90SE-3,CL-R-G4≥1              | 1.78                         | 18            |
| 106            | KVW-IMPDSMML-2P-3,180(2)-19AR90SE-3,I89(4)-R-G4≥1          | 1.56                         | 31            |
| 107            | KVW-IMPDSMML-2P-3,272(2)-19AR90SE-3,I89(4)-R-G4≥1          | 1.54                         | 22            |



| Glass Option # | Model Code                                                 | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|------------------------------------------------------------|------------------------------|---------------|
| 108            | KVW-IMPSDSML-2P-3,366(2)-19AR90SE-3,I89(4)-R-G4≥1          | 1.52                         | 18            |
| 109            | KVW-IMPSDSML-2P-3,180(2)-3,CL-3,CL-13AR90SE-R-G4≥1         | 1.54                         | 25            |
| 110            | KVW-IMPSDSML-2P-3,272(2)-3,CL-3,CL-13AR90SE-R-G4≥1         | 1.52                         | 18            |
| 111            | KVW-IMPSDSML-2P-3,366(2)-3,CL-3,CL-13AR90SE-R-G4≥1         | 1.51                         | 15            |
| 112            | KVW-IMPSDSML-2P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G4≥1     | 1.38                         | 28            |
| 113            | KVW-IMPSDSML-2P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G4≥1     | 1.36                         | 22            |
| 114            | KVW-IMPSDSML-2P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G4≥1     | 1.35                         | 18            |
| 115            | KVW-IMPSDSML-2P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G4≥1 | 1.19                         | 31            |
| 116            | KVW-IMPSDSML-2P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G4≥1 | 1.18                         | 25            |
| 117            | KVW-IMPSDSML-2P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G4≥1 | 1.18                         | 22            |
| 118            | KVW-IMPSDSML-2P-3,272(2)-19AR90SE-3,CL-G4≥1                | 1.62                         | 21            |
| 119            | KVW-IMPSDSML-2P-3,180(2)-19AR90SE-3,I89(4)-G4≥1            | 1.40                         | 35            |
| 120            | KVW-IMPSDSML-2P-3,272(2)-19AR90SE-3,I89(4)-G4≥1            | 1.38                         | 26            |
| 121            | KVW-IMPSDSML-2P-3,366(2)-19AR90SE-3,I89(4)-G4≥1            | 1.36                         | 21            |
| 122            | KVW-IMPSDSML-2P-3,180(2)-3,CL-3,CL-13AR90SE-G4≥1           | 1.40                         | 28            |
| 123            | KVW-IMPSDSML-2P-3,272(2)-3,CL-3,CL-13AR90SE-G4≥1           | 1.38                         | 21            |
| 124            | KVW-IMPSDSML-2P-3,366(2)-3,CL-3,CL-13AR90SE-G4≥1           | 1.36                         | 18            |
| 125            | KVW-IMPSDSML-2P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G4≥1       | 1.24                         | 31            |
| 126            | KVW-IMPSDSML-2P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G4≥1       | 1.22                         | 25            |
| 127            | KVW-IMPSDSML-2P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G4≥1       | 1.22                         | 21            |
| 128            | KVW-IMPSDSML-2P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G4≥1   | 1.06                         | 34            |
| 129            | KVW-IMPSDSML-2P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G4≥1   | 1.04                         | 28            |
| 130            | KVW-IMPSDSML-2P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G4≥1   | 1.04                         | 25            |
| 131            | KVW-IMPSDSML-2P-3,272(2)-19AR90SE-3,CL-R-G5<1              | 1.78                         | 18            |
| 132            | KVW-IMPSDSML-2P-3,180(2)-19AR90SE-3,I89(4)-R-G5<1          | 1.56                         | 31            |
| 133            | KVW-IMPSDSML-2P-3,272(2)-19AR90SE-3,I89(4)-R-G5<1          | 1.54                         | 22            |
| 134            | KVW-IMPSDSML-2P-3,366(2)-19AR90SE-3,I89(4)-R-G5<1          | 1.52                         | 18            |
| 135            | KVW-IMPSDSML-2P-3,180(2)-3,CL-3,CL-13AR90SE-R-G5<1         | 1.49                         | 32            |
| 136            | KVW-IMPSDSML-2P-3,272(2)-3,CL-3,CL-13AR90SE-R-G5<1         | 1.47                         | 23            |
| 137            | KVW-IMPSDSML-2P-3,366(2)-3,CL-3,CL-13AR90SE-R-G5<1         | 1.45                         | 18            |
| 138            | KVW-IMPSDSML-2P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G5<1     | 1.34                         | 34            |
| 139            | KVW-IMPSDSML-2P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G5<1     | 1.32                         | 26            |
| 140            | KVW-IMPSDSML-2P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G5<1     | 1.31                         | 21            |
| 141            | KVW-IMPSDSML-2P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G5<1 | 1.17                         | 36            |
| 142            | KVW-IMPSDSML-2P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G5<1 | 1.16                         | 29            |
| 143            | KVW-IMPSDSML-2P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G5<1 | 1.15                         | 24            |
| 144            | KVW-IMPSDSML-2P-3,272(2)-19AR90SE-3,CL-G5<1                | 1.62                         | 21            |
| 145            | KVW-IMPSDSML-2P-3,180(2)-19AR90SE-3,I89(4)-G5<1            | 1.40                         | 35            |
| 146            | KVW-IMPSDSML-2P-3,272(2)-19AR90SE-3,I89(4)-G5<1            | 1.38                         | 26            |





| Glass Option # | Model Code                                                 | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|------------------------------------------------------------|------------------------------|---------------|
| 147            | KVW-IMPDSMML-2P-3,366(2)-19AR90SE-3,I89(4)-G5<1            | 1.36                         | 21            |
| 148            | KVW-IMPDSMML-2P-3,180(2)-3,CL-3,CL-13AR90SE-G5<1           | 1.35                         | 35            |
| 149            | KVW-IMPDSMML-2P-3,272(2)-3,CL-3,CL-13AR90SE-G5<1           | 1.32                         | 27            |
| 150            | KVW-IMPDSMML-2P-3,366(2)-3,CL-3,CL-13AR90SE-G5<1           | 1.31                         | 21            |
| 151            | KVW-IMPDSMML-2P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G5<1       | 1.21                         | 37            |
| 152            | KVW-IMPDSMML-2P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G5<1       | 1.18                         | 29            |
| 153            | KVW-IMPDSMML-2P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G5<1       | 1.18                         | 24            |
| 154            | KVW-IMPDSMML-2P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G5<1   | 1.04                         | 39            |
| 155            | KVW-IMPDSMML-2P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G5<1   | 1.02                         | 32            |
| 156            | KVW-IMPDSMML-2P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G5<1   | 1.01                         | 27            |
| 157            | KVW-IMPDSMML-2P-3,272(2)-19AR90SE-3,CL-R-G6<1              | 1.78                         | 18            |
| 158            | KVW-IMPDSMML-2P-3,180(2)-19AR90SE-3,I89(4)-R-G6<1          | 1.56                         | 31            |
| 159            | KVW-IMPDSMML-2P-3,272(2)-19AR90SE-3,I89(4)-R-G6<1          | 1.54                         | 22            |
| 160            | KVW-IMPDSMML-2P-3,366(2)-19AR90SE-3,I89(4)-R-G6<1          | 1.52                         | 18            |
| 161            | KVW-IMPDSMML-2P-3,180(2)-3,CL-3,CL-13AR90SE-R-G6<1         | 1.49                         | 32            |
| 162            | KVW-IMPDSMML-2P-3,272(2)-3,CL-3,CL-13AR90SE-R-G6<1         | 1.47                         | 23            |
| 163            | KVW-IMPDSMML-2P-3,366(2)-3,CL-3,CL-13AR90SE-R-G6<1         | 1.45                         | 18            |
| 164            | KVW-IMPDSMML-2P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G6<1     | 1.34                         | 34            |
| 165            | KVW-IMPDSMML-2P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G6<1     | 1.32                         | 26            |
| 166            | KVW-IMPDSMML-2P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G6<1     | 1.31                         | 21            |
| 167            | KVW-IMPDSMML-2P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G6<1 | 1.17                         | 36            |
| 168            | KVW-IMPDSMML-2P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G6<1 | 1.16                         | 29            |
| 169            | KVW-IMPDSMML-2P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G6<1 | 1.15                         | 24            |
| 170            | KVW-IMPDSMML-2P-3,272(2)-19AR90SE-3,CL-G6<1                | 1.62                         | 21            |
| 171            | KVW-IMPDSMML-2P-3,180(2)-19AR90SE-3,I89(4)-G6<1            | 1.40                         | 35            |
| 172            | KVW-IMPDSMML-2P-3,272(2)-19AR90SE-3,I89(4)-G6<1            | 1.38                         | 26            |
| 173            | KVW-IMPDSMML-2P-3,366(2)-19AR90SE-3,I89(4)-G6<1            | 1.36                         | 21            |
| 174            | KVW-IMPDSMML-2P-3,180(2)-3,CL-3,CL-13AR90SE-G6<1           | 1.35                         | 35            |
| 175            | KVW-IMPDSMML-2P-3,272(2)-3,CL-3,CL-13AR90SE-G6<1           | 1.32                         | 27            |
| 176            | KVW-IMPDSMML-2P-3,366(2)-3,CL-3,CL-13AR90SE-G6<1           | 1.31                         | 21            |
| 177            | KVW-IMPDSMML-2P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G6<1       | 1.21                         | 37            |
| 178            | KVW-IMPDSMML-2P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G6<1       | 1.18                         | 29            |
| 179            | KVW-IMPDSMML-2P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G6<1       | 1.18                         | 24            |
| 180            | KVW-IMPDSMML-2P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G6<1   | 1.04                         | 39            |
| 181            | KVW-IMPDSMML-2P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G6<1   | 1.02                         | 32            |
| 182            | KVW-IMPDSMML-2P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G6<1   | 1.01                         | 27            |

### Imperial Series Small Sash Patio Door (3 Panel)

| Primary Designator                                                                       | DP Positive         | DP Negative           | Water Penetration Pressure | Air Leakage (Canada) |
|------------------------------------------------------------------------------------------|---------------------|-----------------------|----------------------------|----------------------|
| Class R – PG40:<br>Size tested 3572 x 2019 mm (~141 x 80 in) –<br>Sliding Door (Type SD) | 1920 Pa<br>(40 psf) | -1920 Pa<br>(-40 psf) | 360 Pa<br>(7.52 psf)       | A3 Level             |

| Glass Option # | Model Code                                            | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|-------------------------------------------------------|------------------------------|---------------|
| 1              | KVW-IMPDSMML-3P-3,272(2)-19AR90SE-3,CL-R              | 1.78                         | 18            |
| 2              | KVW-IMPDSMML-3P-3,180(2)-19AR90SE-3,I89(4)-R          | 1.56                         | 31            |
| 3              | KVW-IMPDSMML-3P-3,272(2)-19AR90SE-3,I89(4)-R          | 1.54                         | 22            |
| 4              | KVW-IMPDSMML-3P-3,366(2)-19AR90SE-3,I89(4)-R          | 1.52                         | 18            |
| 5              | KVW-IMPDSMML-3P-3,180(2)-3,CL-3,CL-13AR90SE-R         | 1.49                         | 32            |
| 6              | KVW-IMPDSMML-3P-3,272(2)-3,CL-3,CL-13AR90SE-R         | 1.47                         | 23            |
| 7              | KVW-IMPDSMML-3P-3,366(2)-3,CL-3,CL-13AR90SE-R         | 1.45                         | 18            |
| 8              | KVW-IMPDSMML-3P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R     | 1.34                         | 34            |
| 9              | KVW-IMPDSMML-3P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R     | 1.32                         | 26            |
| 10             | KVW-IMPDSMML-3P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R     | 1.31                         | 21            |
| 11             | KVW-IMPDSMML-3P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R | 1.17                         | 36            |
| 12             | KVW-IMPDSMML-3P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R | 1.16                         | 29            |
| 13             | KVW-IMPDSMML-3P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R | 1.15                         | 24            |
| 14             | KVW-IMPDSMML-3P-3,272(2)-19AR90SE-3,CL                | 1.62                         | 21            |
| 15             | KVW-IMPDSMML-3P-3,180(2)-19AR90SE-3,I89(4)            | 1.40                         | 35            |
| 16             | KVW-IMPDSMML-3P-3,272(2)-19AR90SE-3,I89(4)            | 1.38                         | 26            |
| 17             | KVW-IMPDSMML-3P-3,366(2)-19AR90SE-3,I89(4)            | 1.36                         | 21            |
| 18             | KVW-IMPDSMML-3P-3,180(2)-3,CL-3,CL-13AR90SE           | 1.35                         | 35            |
| 19             | KVW-IMPDSMML-3P-3,272(2)-3,CL-3,CL-13AR90SE           | 1.32                         | 27            |
| 20             | KVW-IMPDSMML-3P-3,366(2)-3,CL-3,CL-13AR90SE           | 1.31                         | 21            |
| 21             | KVW-IMPDSMML-3P-3,180(2)-3,CL-3,I89(6)-13AR90SE       | 1.21                         | 37            |
| 22             | KVW-IMPDSMML-3P-3,272(2)-3,CL-3,I89(6)-13AR90SE       | 1.18                         | 29            |
| 23             | KVW-IMPDSMML-3P-3,366(2)-3,CL-3,I89(6)-13AR90SE       | 1.18                         | 24            |
| 24             | KVW-IMPDSMML-3P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE   | 1.04                         | 39            |
| 25             | KVW-IMPDSMML-3P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE   | 1.02                         | 32            |
| 26             | KVW-IMPDSMML-3P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE   | 1.01                         | 27            |
| 27             | KVW-IMPDSMML-3P-3,272(2)-19AR90SE-3,CL-R-G1<1         | 1.78                         | 18            |
| 28             | KVW-IMPDSMML-3P-3,180(2)-19AR90SE-3,I89(4)-R-G1<1     | 1.56                         | 31            |
| 29             | KVW-IMPDSMML-3P-3,272(2)-19AR90SE-3,I89(4)-R-G1<1     | 1.54                         | 22            |
| 30             | KVW-IMPDSMML-3P-3,366(2)-19AR90SE-3,I89(4)-R-G1<1     | 1.52                         | 18            |
| 31             | KVW-IMPDSMML-3P-3,180(2)-3,CL-3,CL-13AR90SE-R-G1<1    | 1.49                         | 32            |



| Glass Option # | Model Code                                                 | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|------------------------------------------------------------|------------------------------|---------------|
| 32             | KVW-IMPSDSML-3P-3,272(2)-3,CL-3,CL-13AR90SE-R-G1<1         | 1.47                         | 23            |
| 33             | KVW-IMPSDSML-3P-3,366(2)-3,CL-3,CL-13AR90SE-R-G1<1         | 1.45                         | 18            |
| 34             | KVW-IMPSDSML-3P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G1<1     | 1.34                         | 34            |
| 35             | KVW-IMPSDSML-3P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G1<1     | 1.32                         | 26            |
| 36             | KVW-IMPSDSML-3P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G1<1     | 1.31                         | 21            |
| 37             | KVW-IMPSDSML-3P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G1<1 | 1.17                         | 36            |
| 38             | KVW-IMPSDSML-3P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G1<1 | 1.16                         | 29            |
| 39             | KVW-IMPSDSML-3P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G1<1 | 1.15                         | 24            |
| 40             | KVW-IMPSDSML-3P-3,272(2)-19AR90SE-3,CL-G1<1                | 1.62                         | 21            |
| 41             | KVW-IMPSDSML-3P-3,180(2)-19AR90SE-3,I89(4)-G1<1            | 1.40                         | 35            |
| 42             | KVW-IMPSDSML-3P-3,272(2)-19AR90SE-3,I89(4)-G1<1            | 1.38                         | 26            |
| 43             | KVW-IMPSDSML-3P-3,366(2)-19AR90SE-3,I89(4)-G1<1            | 1.36                         | 21            |
| 44             | KVW-IMPSDSML-3P-3,180(2)-3,CL-3,CL-13AR90SE-G1<1           | 1.35                         | 35            |
| 45             | KVW-IMPSDSML-3P-3,272(2)-3,CL-3,CL-13AR90SE-G1<1           | 1.32                         | 27            |
| 46             | KVW-IMPSDSML-3P-3,366(2)-3,CL-3,CL-13AR90SE-G1<1           | 1.31                         | 21            |
| 47             | KVW-IMPSDSML-3P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G1<1       | 1.21                         | 37            |
| 48             | KVW-IMPSDSML-3P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G1<1       | 1.18                         | 29            |
| 49             | KVW-IMPSDSML-3P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G1<1       | 1.18                         | 24            |
| 50             | KVW-IMPSDSML-3P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G1<1   | 1.04                         | 39            |
| 51             | KVW-IMPSDSML-3P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G1<1   | 1.02                         | 32            |
| 52             | KVW-IMPSDSML-3P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G1<1   | 1.01                         | 27            |
| 53             | KVW-IMPSDSML-3P-3,272(2)-19AR90SE-3,CL-R-G2≥1              | 1.78                         | 18            |
| 54             | KVW-IMPSDSML-3P-3,180(2)-19AR90SE-3,I89(4)-R-G2≥1          | 1.56                         | 31            |
| 55             | KVW-IMPSDSML-3P-3,272(2)-19AR90SE-3,I89(4)-R-G2≥1          | 1.54                         | 22            |
| 56             | KVW-IMPSDSML-3P-3,366(2)-19AR90SE-3,I89(4)-R-G2≥1          | 1.52                         | 18            |
| 57             | KVW-IMPSDSML-3P-3,180(2)-3,CL-3,CL-13AR90SE-R-G2≥1         | 1.49                         | 32            |
| 58             | KVW-IMPSDSML-3P-3,272(2)-3,CL-3,CL-13AR90SE-R-G2≥1         | 1.47                         | 23            |
| 59             | KVW-IMPSDSML-3P-3,366(2)-3,CL-3,CL-13AR90SE-R-G2≥1         | 1.45                         | 18            |
| 60             | KVW-IMPSDSML-3P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G2≥1     | 1.34                         | 34            |
| 61             | KVW-IMPSDSML-3P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G2≥1     | 1.32                         | 26            |
| 62             | KVW-IMPSDSML-3P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G2≥1     | 1.31                         | 21            |
| 63             | KVW-IMPSDSML-3P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G2≥1 | 1.17                         | 36            |
| 64             | KVW-IMPSDSML-3P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G2≥1 | 1.16                         | 29            |
| 65             | KVW-IMPSDSML-3P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G2≥1 | 1.15                         | 24            |
| 66             | KVW-IMPSDSML-3P-3,272(2)-19AR90SE-3,CL-G2≥1                | 1.62                         | 21            |
| 67             | KVW-IMPSDSML-3P-3,180(2)-19AR90SE-3,I89(4)-G2≥1            | 1.40                         | 35            |
| 68             | KVW-IMPSDSML-3P-3,272(2)-19AR90SE-3,I89(4)-G2≥1            | 1.38                         | 26            |
| 69             | KVW-IMPSDSML-3P-3,366(2)-19AR90SE-3,I89(4)-G2≥1            | 1.36                         | 21            |
| 70             | KVW-IMPSDSML-3P-3,180(2)-3,CL-3,CL-13AR90SE-G2≥1           | 1.35                         | 35            |





| Glass Option # | Model Code                                                 | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|------------------------------------------------------------|------------------------------|---------------|
| 71             | KVW-IMPDSMML-3P-3,272(2)-3,CL-3,CL-13AR90SE-G2≥1           | 1.32                         | 27            |
| 72             | KVW-IMPDSMML-3P-3,366(2)-3,CL-3,CL-13AR90SE-G2≥1           | 1.31                         | 21            |
| 73             | KVW-IMPDSMML-3P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G2≥1       | 1.21                         | 37            |
| 74             | KVW-IMPDSMML-3P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G2≥1       | 1.18                         | 29            |
| 75             | KVW-IMPDSMML-3P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G2≥1       | 1.18                         | 24            |
| 76             | KVW-IMPDSMML-3P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G2≥1   | 1.04                         | 39            |
| 77             | KVW-IMPDSMML-3P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G2≥1   | 1.02                         | 32            |
| 78             | KVW-IMPDSMML-3P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G2≥1   | 1.01                         | 27            |
| 79             | KVW-IMPDSMML-3P-3,272(2)-19AR90SE-3,CL-R-G3<1              | 1.78                         | 18            |
| 80             | KVW-IMPDSMML-3P-3,180(2)-19AR90SE-3,I89(4)-R-G3<1          | 1.56                         | 31            |
| 81             | KVW-IMPDSMML-3P-3,272(2)-19AR90SE-3,I89(4)-R-G3<1          | 1.54                         | 22            |
| 82             | KVW-IMPDSMML-3P-3,366(2)-19AR90SE-3,I89(4)-R-G3<1          | 1.52                         | 18            |
| 83             | KVW-IMPDSMML-3P-3,180(2)-3,CL-3,CL-13AR90SE-R-G3<1         | 1.53                         | 28            |
| 84             | KVW-IMPDSMML-3P-3,272(2)-3,CL-3,CL-13AR90SE-R-G3<1         | 1.51                         | 20            |
| 85             | KVW-IMPDSMML-3P-3,366(2)-3,CL-3,CL-13AR90SE-R-G3<1         | 1.49                         | 16            |
| 86             | KVW-IMPDSMML-3P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G3<1     | 1.37                         | 30            |
| 87             | KVW-IMPDSMML-3P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G3<1     | 1.35                         | 24            |
| 88             | KVW-IMPDSMML-3P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G3<1     | 1.34                         | 19            |
| 89             | KVW-IMPDSMML-3P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G3<1 | 1.19                         | 33            |
| 90             | KVW-IMPDSMML-3P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G3<1 | 1.18                         | 27            |
| 91             | KVW-IMPDSMML-3P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G3<1 | 1.17                         | 23            |
| 92             | KVW-IMPDSMML-3P-3,272(2)-19AR90SE-3,CL-G3<1                | 1.62                         | 21            |
| 93             | KVW-IMPDSMML-3P-3,180(2)-19AR90SE-3,I89(4)-G3<1            | 1.40                         | 35            |
| 94             | KVW-IMPDSMML-3P-3,272(2)-19AR90SE-3,I89(4)-G3<1            | 1.38                         | 26            |
| 95             | KVW-IMPDSMML-3P-3,366(2)-19AR90SE-3,I89(4)-G3<1            | 1.36                         | 21            |
| 96             | KVW-IMPDSMML-3P-3,180(2)-3,CL-3,CL-13AR90SE-G3<1           | 1.39                         | 30            |
| 97             | KVW-IMPDSMML-3P-3,272(2)-3,CL-3,CL-13AR90SE-G3<1           | 1.36                         | 23            |
| 98             | KVW-IMPDSMML-3P-3,366(2)-3,CL-3,CL-13AR90SE-G3<1           | 1.35                         | 19            |
| 99             | KVW-IMPDSMML-3P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G3<1       | 1.23                         | 33            |
| 100            | KVW-IMPDSMML-3P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G3<1       | 1.21                         | 27            |
| 101            | KVW-IMPDSMML-3P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G3<1       | 1.20                         | 22            |
| 102            | KVW-IMPDSMML-3P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G3<1   | 1.05                         | 36            |
| 103            | KVW-IMPDSMML-3P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G3<1   | 1.04                         | 30            |
| 104            | KVW-IMPDSMML-3P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G3<1   | 1.03                         | 26            |
| 105            | KVW-IMPDSMML-3P-3,272(2)-19AR90SE-3,CL-R-G4≥1              | 1.78                         | 18            |
| 106            | KVW-IMPDSMML-3P-3,180(2)-19AR90SE-3,I89(4)-R-G4≥1          | 1.56                         | 31            |
| 107            | KVW-IMPDSMML-3P-3,272(2)-19AR90SE-3,I89(4)-R-G4≥1          | 1.54                         | 22            |
| 108            | KVW-IMPDSMML-3P-3,366(2)-19AR90SE-3,I89(4)-R-G4≥1          | 1.52                         | 18            |
| 109            | KVW-IMPDSMML-3P-3,180(2)-3,CL-3,CL-13AR90SE-R-G4≥1         | 1.54                         | 25            |



| Glass Option # | Model Code                                                 | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|------------------------------------------------------------|------------------------------|---------------|
| 110            | KVW-IMPSDSML-3P-3,272(2)-3,CL-3,CL-13AR90SE-R-G4≥1         | 1.52                         | 18            |
| 111            | KVW-IMPSDSML-3P-3,366(2)-3,CL-3,CL-13AR90SE-R-G4≥1         | 1.51                         | 15            |
| 112            | KVW-IMPSDSML-3P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G4≥1     | 1.38                         | 28            |
| 113            | KVW-IMPSDSML-3P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G4≥1     | 1.36                         | 22            |
| 114            | KVW-IMPSDSML-3P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G4≥1     | 1.35                         | 18            |
| 115            | KVW-IMPSDSML-3P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G4≥1 | 1.19                         | 31            |
| 116            | KVW-IMPSDSML-3P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G4≥1 | 1.18                         | 25            |
| 117            | KVW-IMPSDSML-3P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G4≥1 | 1.18                         | 22            |
| 118            | KVW-IMPSDSML-3P-3,272(2)-19AR90SE-3,CL-G4≥1                | 1.62                         | 21            |
| 119            | KVW-IMPSDSML-3P-3,180(2)-19AR90SE-3,I89(4)-G4≥1            | 1.40                         | 35            |
| 120            | KVW-IMPSDSML-3P-3,272(2)-19AR90SE-3,I89(4)-G4≥1            | 1.38                         | 26            |
| 121            | KVW-IMPSDSML-3P-3,366(2)-19AR90SE-3,I89(4)-G4≥1            | 1.36                         | 21            |
| 122            | KVW-IMPSDSML-3P-3,180(2)-3,CL-3,CL-13AR90SE-G4≥1           | 1.40                         | 28            |
| 123            | KVW-IMPSDSML-3P-3,272(2)-3,CL-3,CL-13AR90SE-G4≥1           | 1.38                         | 21            |
| 124            | KVW-IMPSDSML-3P-3,366(2)-3,CL-3,CL-13AR90SE-G4≥1           | 1.36                         | 18            |
| 125            | KVW-IMPSDSML-3P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G4≥1       | 1.24                         | 31            |
| 126            | KVW-IMPSDSML-3P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G4≥1       | 1.22                         | 25            |
| 127            | KVW-IMPSDSML-3P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G4≥1       | 1.22                         | 21            |
| 128            | KVW-IMPSDSML-3P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G4≥1   | 1.06                         | 34            |
| 129            | KVW-IMPSDSML-3P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G4≥1   | 1.04                         | 28            |
| 130            | KVW-IMPSDSML-3P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G4≥1   | 1.04                         | 25            |
| 131            | KVW-IMPSDSML-3P-3,272(2)-19AR90SE-3,CL-R-G5<1              | 1.78                         | 18            |
| 132            | KVW-IMPSDSML-3P-3,180(2)-19AR90SE-3,I89(4)-R-G5<1          | 1.56                         | 31            |
| 133            | KVW-IMPSDSML-3P-3,272(2)-19AR90SE-3,I89(4)-R-G5<1          | 1.54                         | 22            |
| 134            | KVW-IMPSDSML-3P-3,366(2)-19AR90SE-3,I89(4)-R-G5<1          | 1.52                         | 18            |
| 135            | KVW-IMPSDSML-3P-3,180(2)-3,CL-3,CL-13AR90SE-R-G5<1         | 1.49                         | 32            |
| 136            | KVW-IMPSDSML-3P-3,272(2)-3,CL-3,CL-13AR90SE-R-G5<1         | 1.47                         | 23            |
| 137            | KVW-IMPSDSML-3P-3,366(2)-3,CL-3,CL-13AR90SE-R-G5<1         | 1.45                         | 18            |
| 138            | KVW-IMPSDSML-3P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G5<1     | 1.34                         | 34            |
| 139            | KVW-IMPSDSML-3P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G5<1     | 1.32                         | 26            |
| 140            | KVW-IMPSDSML-3P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G5<1     | 1.31                         | 21            |
| 141            | KVW-IMPSDSML-3P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G5<1 | 1.17                         | 36            |
| 142            | KVW-IMPSDSML-3P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G5<1 | 1.16                         | 29            |
| 143            | KVW-IMPSDSML-3P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G5<1 | 1.15                         | 24            |
| 144            | KVW-IMPSDSML-3P-3,272(2)-19AR90SE-3,CL-G5<1                | 1.62                         | 21            |
| 145            | KVW-IMPSDSML-3P-3,180(2)-19AR90SE-3,I89(4)-G5<1            | 1.40                         | 35            |
| 146            | KVW-IMPSDSML-3P-3,272(2)-19AR90SE-3,I89(4)-G5<1            | 1.38                         | 26            |
| 147            | KVW-IMPSDSML-3P-3,366(2)-19AR90SE-3,I89(4)-G5<1            | 1.36                         | 21            |
| 148            | KVW-IMPSDSML-3P-3,180(2)-3,CL-3,CL-13AR90SE-G5<1           | 1.35                         | 35            |



| Glass Option # | Model Code                                                 | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|------------------------------------------------------------|------------------------------|---------------|
| 149            | KVW-IMPDSMML-3P-3,272(2)-3,CL-3,CL-13AR90SE-G5<1           | 1.32                         | 27            |
| 150            | KVW-IMPDSMML-3P-3,366(2)-3,CL-3,CL-13AR90SE-G5<1           | 1.31                         | 21            |
| 151            | KVW-IMPDSMML-3P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G5<1       | 1.21                         | 37            |
| 152            | KVW-IMPDSMML-3P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G5<1       | 1.18                         | 29            |
| 153            | KVW-IMPDSMML-3P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G5<1       | 1.18                         | 24            |
| 154            | KVW-IMPDSMML-3P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G5<1   | 1.04                         | 39            |
| 155            | KVW-IMPDSMML-3P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G5<1   | 1.02                         | 32            |
| 156            | KVW-IMPDSMML-3P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G5<1   | 1.01                         | 27            |
| 157            | KVW-IMPDSMML-3P-3,272(2)-19AR90SE-3,CL-R-G6<1              | 1.78                         | 18            |
| 158            | KVW-IMPDSMML-3P-3,180(2)-19AR90SE-3,I89(4)-R-G6<1          | 1.56                         | 31            |
| 159            | KVW-IMPDSMML-3P-3,272(2)-19AR90SE-3,I89(4)-R-G6<1          | 1.54                         | 22            |
| 160            | KVW-IMPDSMML-3P-3,366(2)-19AR90SE-3,I89(4)-R-G6<1          | 1.52                         | 18            |
| 161            | KVW-IMPDSMML-3P-3,180(2)-3,CL-3,CL-13AR90SE-R-G6<1         | 1.49                         | 32            |
| 162            | KVW-IMPDSMML-3P-3,272(2)-3,CL-3,CL-13AR90SE-R-G6<1         | 1.47                         | 23            |
| 163            | KVW-IMPDSMML-3P-3,366(2)-3,CL-3,CL-13AR90SE-R-G6<1         | 1.45                         | 18            |
| 164            | KVW-IMPDSMML-3P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G6<1     | 1.34                         | 34            |
| 165            | KVW-IMPDSMML-3P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G6<1     | 1.32                         | 26            |
| 166            | KVW-IMPDSMML-3P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G6<1     | 1.31                         | 21            |
| 167            | KVW-IMPDSMML-3P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G6<1 | 1.17                         | 36            |
| 168            | KVW-IMPDSMML-3P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G6<1 | 1.16                         | 29            |
| 169            | KVW-IMPDSMML-3P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G6<1 | 1.15                         | 24            |
| 170            | KVW-IMPDSMML-3P-3,272(2)-19AR90SE-3,CL-G6<1                | 1.62                         | 21            |
| 171            | KVW-IMPDSMML-3P-3,180(2)-19AR90SE-3,I89(4)-G6<1            | 1.40                         | 35            |
| 172            | KVW-IMPDSMML-3P-3,272(2)-19AR90SE-3,I89(4)-G6<1            | 1.38                         | 26            |
| 173            | KVW-IMPDSMML-3P-3,366(2)-19AR90SE-3,I89(4)-G6<1            | 1.36                         | 21            |
| 174            | KVW-IMPDSMML-3P-3,180(2)-3,CL-3,CL-13AR90SE-G6<1           | 1.35                         | 35            |
| 175            | KVW-IMPDSMML-3P-3,272(2)-3,CL-3,CL-13AR90SE-G6<1           | 1.32                         | 27            |
| 176            | KVW-IMPDSMML-3P-3,366(2)-3,CL-3,CL-13AR90SE-G6<1           | 1.31                         | 21            |
| 177            | KVW-IMPDSMML-3P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G6<1       | 1.21                         | 37            |
| 178            | KVW-IMPDSMML-3P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G6<1       | 1.18                         | 29            |
| 179            | KVW-IMPDSMML-3P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G6<1       | 1.18                         | 24            |
| 180            | KVW-IMPDSMML-3P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G6<1   | 1.04                         | 39            |
| 181            | KVW-IMPDSMML-3P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G6<1   | 1.02                         | 32            |
| 182            | KVW-IMPDSMML-3P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G6<1   | 1.01                         | 27            |

### Imperial Series Small Sash Patio Door (4 Panel)

| Primary Designator                                                                       | DP Positive         | DP Negative           | Water Penetration Pressure | Air Leakage (Canada) |
|------------------------------------------------------------------------------------------|---------------------|-----------------------|----------------------------|----------------------|
| Class R – PG35:<br>Size tested 4820 x 2019 mm (~190 x 80 in) –<br>Sliding Door (Type SD) | 1680 Pa<br>(35 psf) | -1680 Pa<br>(-35 psf) | 290 Pa<br>(6.06 psf)       | A3 Level             |

| Glass Option # | Model Code                                            | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|-------------------------------------------------------|------------------------------|---------------|
| 1              | KVW-IMPDSMML-4P-3,272(2)-19AR90SE-3,CL-R              | 1.78                         | 18            |
| 2              | KVW-IMPDSMML-4P-3,180(2)-19AR90SE-3,I89(4)-R          | 1.56                         | 31            |
| 3              | KVW-IMPDSMML-4P-3,272(2)-19AR90SE-3,I89(4)-R          | 1.54                         | 22            |
| 4              | KVW-IMPDSMML-4P-3,366(2)-19AR90SE-3,I89(4)-R          | 1.52                         | 17            |
| 5              | KVW-IMPDSMML-4P-3,180(2)-3,CL-3,CL-13AR90SE-R         | 1.49                         | 31            |
| 6              | KVW-IMPDSMML-4P-3,272(2)-3,CL-3,CL-13AR90SE-R         | 1.47                         | 23            |
| 7              | KVW-IMPDSMML-4P-3,366(2)-3,CL-3,CL-13AR90SE-R         | 1.45                         | 18            |
| 8              | KVW-IMPDSMML-4P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R     | 1.34                         | 34            |
| 9              | KVW-IMPDSMML-4P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R     | 1.32                         | 26            |
| 10             | KVW-IMPDSMML-4P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R     | 1.31                         | 21            |
| 11             | KVW-IMPDSMML-4P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R | 1.17                         | 36            |
| 12             | KVW-IMPDSMML-4P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R | 1.16                         | 29            |
| 13             | KVW-IMPDSMML-4P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R | 1.15                         | 24            |
| 14             | KVW-IMPDSMML-4P-3,272(2)-19AR90SE-3,CL                | 1.62                         | 21            |
| 15             | KVW-IMPDSMML-4P-3,180(2)-19AR90SE-3,I89(4)            | 1.40                         | 35            |
| 16             | KVW-IMPDSMML-4P-3,272(2)-19AR90SE-3,I89(4)            | 1.38                         | 26            |
| 17             | KVW-IMPDSMML-4P-3,366(2)-19AR90SE-3,I89(4)            | 1.36                         | 20            |
| 18             | KVW-IMPDSMML-4P-3,180(2)-3,CL-3,CL-13AR90SE           | 1.35                         | 34            |
| 19             | KVW-IMPDSMML-4P-3,272(2)-3,CL-3,CL-13AR90SE           | 1.32                         | 26            |
| 20             | KVW-IMPDSMML-4P-3,366(2)-3,CL-3,CL-13AR90SE           | 1.31                         | 21            |
| 21             | KVW-IMPDSMML-4P-3,180(2)-3,CL-3,I89(6)-13AR90SE       | 1.21                         | 36            |
| 22             | KVW-IMPDSMML-4P-3,272(2)-3,CL-3,I89(6)-13AR90SE       | 1.18                         | 29            |
| 23             | KVW-IMPDSMML-4P-3,366(2)-3,CL-3,I89(6)-13AR90SE       | 1.18                         | 24            |
| 24             | KVW-IMPDSMML-4P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE   | 1.04                         | 39            |
| 25             | KVW-IMPDSMML-4P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE   | 1.02                         | 32            |
| 26             | KVW-IMPDSMML-4P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE   | 1.01                         | 27            |
| 27             | KVW-IMPDSMML-4P-3,272(2)-19AR90SE-3,CL-R-G1<1         | 1.78                         | 18            |
| 28             | KVW-IMPDSMML-4P-3,180(2)-19AR90SE-3,I89(4)-R-G1<1     | 1.56                         | 31            |
| 29             | KVW-IMPDSMML-4P-3,272(2)-19AR90SE-3,I89(4)-R-G1<1     | 1.54                         | 22            |
| 30             | KVW-IMPDSMML-4P-3,366(2)-19AR90SE-3,I89(4)-R-G1<1     | 1.52                         | 17            |
| 31             | KVW-IMPDSMML-4P-3,180(2)-3,CL-3,CL-13AR90SE-R-G1<1    | 1.49                         | 31            |



| Glass Option # | Model Code                                                 | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|------------------------------------------------------------|------------------------------|---------------|
| 32             | KVW-IMPDSMML-4P-3,272(2)-3,CL-3,CL-13AR90SE-R-G1<1         | 1.47                         | 23            |
| 33             | KVW-IMPDSMML-4P-3,366(2)-3,CL-3,CL-13AR90SE-R-G1<1         | 1.45                         | 18            |
| 34             | KVW-IMPDSMML-4P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G1<1     | 1.34                         | 34            |
| 35             | KVW-IMPDSMML-4P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G1<1     | 1.32                         | 26            |
| 36             | KVW-IMPDSMML-4P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G1<1     | 1.31                         | 21            |
| 37             | KVW-IMPDSMML-4P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G1<1 | 1.17                         | 36            |
| 38             | KVW-IMPDSMML-4P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G1<1 | 1.16                         | 29            |
| 39             | KVW-IMPDSMML-4P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G1<1 | 1.15                         | 24            |
| 40             | KVW-IMPDSMML-4P-3,272(2)-19AR90SE-3,CL-G1<1                | 1.62                         | 21            |
| 41             | KVW-IMPDSMML-4P-3,180(2)-19AR90SE-3,I89(4)-G1<1            | 1.40                         | 35            |
| 42             | KVW-IMPDSMML-4P-3,272(2)-19AR90SE-3,I89(4)-G1<1            | 1.38                         | 26            |
| 43             | KVW-IMPDSMML-4P-3,366(2)-19AR90SE-3,I89(4)-G1<1            | 1.36                         | 20            |
| 44             | KVW-IMPDSMML-4P-3,180(2)-3,CL-3,CL-13AR90SE-G1<1           | 1.35                         | 34            |
| 45             | KVW-IMPDSMML-4P-3,272(2)-3,CL-3,CL-13AR90SE-G1<1           | 1.32                         | 26            |
| 46             | KVW-IMPDSMML-4P-3,366(2)-3,CL-3,CL-13AR90SE-G1<1           | 1.31                         | 21            |
| 47             | KVW-IMPDSMML-4P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G1<1       | 1.21                         | 36            |
| 48             | KVW-IMPDSMML-4P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G1<1       | 1.18                         | 29            |
| 49             | KVW-IMPDSMML-4P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G1<1       | 1.18                         | 24            |
| 50             | KVW-IMPDSMML-4P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G1<1   | 1.04                         | 39            |
| 51             | KVW-IMPDSMML-4P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G1<1   | 1.02                         | 32            |
| 52             | KVW-IMPDSMML-4P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G1<1   | 1.01                         | 27            |
| 53             | KVW-IMPDSMML-4P-3,272(2)-19AR90SE-3,CL-R-G2≥1              | 1.78                         | 18            |
| 54             | KVW-IMPDSMML-4P-3,180(2)-19AR90SE-3,I89(4)-R-G2≥1          | 1.56                         | 31            |
| 55             | KVW-IMPDSMML-4P-3,272(2)-19AR90SE-3,I89(4)-R-G2≥1          | 1.54                         | 22            |
| 56             | KVW-IMPDSMML-4P-3,366(2)-19AR90SE-3,I89(4)-R-G2≥1          | 1.52                         | 17            |
| 57             | KVW-IMPDSMML-4P-3,180(2)-3,CL-3,CL-13AR90SE-R-G2≥1         | 1.49                         | 31            |
| 58             | KVW-IMPDSMML-4P-3,272(2)-3,CL-3,CL-13AR90SE-R-G2≥1         | 1.47                         | 23            |
| 59             | KVW-IMPDSMML-4P-3,366(2)-3,CL-3,CL-13AR90SE-R-G2≥1         | 1.45                         | 18            |
| 60             | KVW-IMPDSMML-4P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G2≥1     | 1.34                         | 34            |
| 61             | KVW-IMPDSMML-4P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G2≥1     | 1.32                         | 26            |
| 62             | KVW-IMPDSMML-4P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G2≥1     | 1.31                         | 21            |
| 63             | KVW-IMPDSMML-4P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G2≥1 | 1.17                         | 36            |
| 64             | KVW-IMPDSMML-4P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G2≥1 | 1.16                         | 29            |
| 65             | KVW-IMPDSMML-4P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G2≥1 | 1.15                         | 24            |
| 66             | KVW-IMPDSMML-4P-3,272(2)-19AR90SE-3,CL-G2≥1                | 1.62                         | 21            |
| 67             | KVW-IMPDSMML-4P-3,180(2)-19AR90SE-3,I89(4)-G2≥1            | 1.40                         | 35            |
| 68             | KVW-IMPDSMML-4P-3,272(2)-19AR90SE-3,I89(4)-G2≥1            | 1.38                         | 26            |
| 69             | KVW-IMPDSMML-4P-3,366(2)-19AR90SE-3,I89(4)-G2≥1            | 1.36                         | 20            |
| 70             | KVW-IMPDSMML-4P-3,180(2)-3,CL-3,CL-13AR90SE-G2≥1           | 1.35                         | 34            |





| Glass Option # | Model Code                                                 | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|------------------------------------------------------------|------------------------------|---------------|
| 71             | KVW-IMPDSMML-4P-3,272(2)-3,CL-3,CL-13AR90SE-G2≥1           | 1.32                         | 26            |
| 72             | KVW-IMPDSMML-4P-3,366(2)-3,CL-3,CL-13AR90SE-G2≥1           | 1.31                         | 21            |
| 73             | KVW-IMPDSMML-4P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G2≥1       | 1.21                         | 36            |
| 74             | KVW-IMPDSMML-4P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G2≥1       | 1.18                         | 29            |
| 75             | KVW-IMPDSMML-4P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G2≥1       | 1.18                         | 24            |
| 76             | KVW-IMPDSMML-4P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G2≥1   | 1.04                         | 39            |
| 77             | KVW-IMPDSMML-4P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G2≥1   | 1.02                         | 32            |
| 78             | KVW-IMPDSMML-4P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G2≥1   | 1.01                         | 27            |
| 79             | KVW-IMPDSMML-4P-3,272(2)-19AR90SE-3,CL-R-G3<1              | 1.78                         | 18            |
| 80             | KVW-IMPDSMML-4P-3,180(2)-19AR90SE-3,I89(4)-R-G3<1          | 1.56                         | 31            |
| 81             | KVW-IMPDSMML-4P-3,272(2)-19AR90SE-3,I89(4)-R-G3<1          | 1.54                         | 22            |
| 82             | KVW-IMPDSMML-4P-3,366(2)-19AR90SE-3,I89(4)-R-G3<1          | 1.52                         | 17            |
| 83             | KVW-IMPDSMML-4P-3,180(2)-3,CL-3,CL-13AR90SE-R-G3<1         | 1.53                         | 28            |
| 84             | KVW-IMPDSMML-4P-3,272(2)-3,CL-3,CL-13AR90SE-R-G3<1         | 1.51                         | 20            |
| 85             | KVW-IMPDSMML-4P-3,366(2)-3,CL-3,CL-13AR90SE-R-G3<1         | 1.49                         | 16            |
| 86             | KVW-IMPDSMML-4P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G3<1     | 1.37                         | 30            |
| 87             | KVW-IMPDSMML-4P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G3<1     | 1.35                         | 24            |
| 88             | KVW-IMPDSMML-4P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G3<1     | 1.34                         | 19            |
| 89             | KVW-IMPDSMML-4P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G3<1 | 1.19                         | 33            |
| 90             | KVW-IMPDSMML-4P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G3<1 | 1.18                         | 27            |
| 91             | KVW-IMPDSMML-4P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G3<1 | 1.17                         | 23            |
| 92             | KVW-IMPDSMML-4P-3,272(2)-19AR90SE-3,CL-G3<1                | 1.62                         | 21            |
| 93             | KVW-IMPDSMML-4P-3,180(2)-19AR90SE-3,I89(4)-G3<1            | 1.40                         | 35            |
| 94             | KVW-IMPDSMML-4P-3,272(2)-19AR90SE-3,I89(4)-G3<1            | 1.38                         | 26            |
| 95             | KVW-IMPDSMML-4P-3,366(2)-19AR90SE-3,I89(4)-G3<1            | 1.36                         | 20            |
| 96             | KVW-IMPDSMML-4P-3,180(2)-3,CL-3,CL-13AR90SE-G3<1           | 1.39                         | 30            |
| 97             | KVW-IMPDSMML-4P-3,272(2)-3,CL-3,CL-13AR90SE-G3<1           | 1.36                         | 23            |
| 98             | KVW-IMPDSMML-4P-3,366(2)-3,CL-3,CL-13AR90SE-G3<1           | 1.35                         | 19            |
| 99             | KVW-IMPDSMML-4P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G3<1       | 1.23                         | 33            |
| 100            | KVW-IMPDSMML-4P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G3<1       | 1.21                         | 27            |
| 101            | KVW-IMPDSMML-4P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G3<1       | 1.20                         | 22            |
| 102            | KVW-IMPDSMML-4P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G3<1   | 1.05                         | 36            |
| 103            | KVW-IMPDSMML-4P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G3<1   | 1.04                         | 30            |
| 104            | KVW-IMPDSMML-4P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G3<1   | 1.03                         | 25            |
| 105            | KVW-IMPDSMML-4P-3,272(2)-19AR90SE-3,CL-R-G4≥1              | 1.78                         | 18            |
| 106            | KVW-IMPDSMML-4P-3,180(2)-19AR90SE-3,I89(4)-R-G4≥1          | 1.56                         | 31            |
| 107            | KVW-IMPDSMML-4P-3,272(2)-19AR90SE-3,I89(4)-R-G4≥1          | 1.54                         | 22            |
| 108            | KVW-IMPDSMML-4P-3,366(2)-19AR90SE-3,I89(4)-R-G4≥1          | 1.52                         | 17            |
| 109            | KVW-IMPDSMML-4P-3,180(2)-3,CL-3,CL-13AR90SE-R-G4≥1         | 1.54                         | 25            |



| Glass Option # | Model Code                                                 | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|------------------------------------------------------------|------------------------------|---------------|
| 110            | KVW-IMPSDSML-4P-3,272(2)-3,CL-3,CL-13AR90SE-R-G4≥1         | 1.52                         | 18            |
| 111            | KVW-IMPSDSML-4P-3,366(2)-3,CL-3,CL-13AR90SE-R-G4≥1         | 1.51                         | 15            |
| 112            | KVW-IMPSDSML-4P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G4≥1     | 1.38                         | 27            |
| 113            | KVW-IMPSDSML-4P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G4≥1     | 1.36                         | 22            |
| 114            | KVW-IMPSDSML-4P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G4≥1     | 1.35                         | 18            |
| 115            | KVW-IMPSDSML-4P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G4≥1 | 1.19                         | 30            |
| 116            | KVW-IMPSDSML-4P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G4≥1 | 1.18                         | 25            |
| 117            | KVW-IMPSDSML-4P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G4≥1 | 1.18                         | 21            |
| 118            | KVW-IMPSDSML-4P-3,272(2)-19AR90SE-3,CL-G4≥1                | 1.62                         | 21            |
| 119            | KVW-IMPSDSML-4P-3,180(2)-19AR90SE-3,I89(4)-G4≥1            | 1.40                         | 35            |
| 120            | KVW-IMPSDSML-4P-3,272(2)-19AR90SE-3,I89(4)-G4≥1            | 1.38                         | 26            |
| 121            | KVW-IMPSDSML-4P-3,366(2)-19AR90SE-3,I89(4)-G4≥1            | 1.36                         | 20            |
| 122            | KVW-IMPSDSML-4P-3,180(2)-3,CL-3,CL-13AR90SE-G4≥1           | 1.40                         | 28            |
| 123            | KVW-IMPSDSML-4P-3,272(2)-3,CL-3,CL-13AR90SE-G4≥1           | 1.38                         | 21            |
| 124            | KVW-IMPSDSML-4P-3,366(2)-3,CL-3,CL-13AR90SE-G4≥1           | 1.36                         | 18            |
| 125            | KVW-IMPSDSML-4P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G4≥1       | 1.24                         | 31            |
| 126            | KVW-IMPSDSML-4P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G4≥1       | 1.22                         | 25            |
| 127            | KVW-IMPSDSML-4P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G4≥1       | 1.22                         | 21            |
| 128            | KVW-IMPSDSML-4P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G4≥1   | 1.06                         | 33            |
| 129            | KVW-IMPSDSML-4P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G4≥1   | 1.04                         | 28            |
| 130            | KVW-IMPSDSML-4P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G4≥1   | 1.04                         | 25            |
| 131            | KVW-IMPSDSML-4P-3,272(2)-19AR90SE-3,CL-R-G5<1              | 1.78                         | 18            |
| 132            | KVW-IMPSDSML-4P-3,180(2)-19AR90SE-3,I89(4)-R-G5<1          | 1.56                         | 31            |
| 133            | KVW-IMPSDSML-4P-3,272(2)-19AR90SE-3,I89(4)-R-G5<1          | 1.54                         | 22            |
| 134            | KVW-IMPSDSML-4P-3,366(2)-19AR90SE-3,I89(4)-R-G5<1          | 1.52                         | 17            |
| 135            | KVW-IMPSDSML-4P-3,180(2)-3,CL-3,CL-13AR90SE-R-G5<1         | 1.49                         | 31            |
| 136            | KVW-IMPSDSML-4P-3,272(2)-3,CL-3,CL-13AR90SE-R-G5<1         | 1.47                         | 23            |
| 137            | KVW-IMPSDSML-4P-3,366(2)-3,CL-3,CL-13AR90SE-R-G5<1         | 1.45                         | 18            |
| 138            | KVW-IMPSDSML-4P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G5<1     | 1.34                         | 34            |
| 139            | KVW-IMPSDSML-4P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G5<1     | 1.32                         | 26            |
| 140            | KVW-IMPSDSML-4P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G5<1     | 1.31                         | 21            |
| 141            | KVW-IMPSDSML-4P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G5<1 | 1.17                         | 36            |
| 142            | KVW-IMPSDSML-4P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G5<1 | 1.16                         | 29            |
| 143            | KVW-IMPSDSML-4P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G5<1 | 1.15                         | 24            |
| 144            | KVW-IMPSDSML-4P-3,272(2)-19AR90SE-3,CL-G5<1                | 1.62                         | 21            |
| 145            | KVW-IMPSDSML-4P-3,180(2)-19AR90SE-3,I89(4)-G5<1            | 1.40                         | 35            |
| 146            | KVW-IMPSDSML-4P-3,272(2)-19AR90SE-3,I89(4)-G5<1            | 1.38                         | 26            |
| 147            | KVW-IMPSDSML-4P-3,366(2)-19AR90SE-3,I89(4)-G5<1            | 1.36                         | 20            |
| 148            | KVW-IMPSDSML-4P-3,180(2)-3,CL-3,CL-13AR90SE-G5<1           | 1.35                         | 34            |



| Glass Option # | Model Code                                                 | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|------------------------------------------------------------|------------------------------|---------------|
| 149            | KVW-IMPDSMML-4P-3,272(2)-3,CL-3,CL-13AR90SE-G5<1           | 1.32                         | 26            |
| 150            | KVW-IMPDSMML-4P-3,366(2)-3,CL-3,CL-13AR90SE-G5<1           | 1.31                         | 21            |
| 151            | KVW-IMPDSMML-4P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G5<1       | 1.21                         | 36            |
| 152            | KVW-IMPDSMML-4P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G5<1       | 1.18                         | 29            |
| 153            | KVW-IMPDSMML-4P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G5<1       | 1.18                         | 24            |
| 154            | KVW-IMPDSMML-4P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G5<1   | 1.04                         | 39            |
| 155            | KVW-IMPDSMML-4P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G5<1   | 1.02                         | 32            |
| 156            | KVW-IMPDSMML-4P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G5<1   | 1.01                         | 27            |
| 157            | KVW-IMPDSMML-4P-3,272(2)-19AR90SE-3,CL-R-G6<1              | 1.78                         | 18            |
| 158            | KVW-IMPDSMML-4P-3,180(2)-19AR90SE-3,I89(4)-R-G6<1          | 1.56                         | 31            |
| 159            | KVW-IMPDSMML-4P-3,272(2)-19AR90SE-3,I89(4)-R-G6<1          | 1.54                         | 22            |
| 160            | KVW-IMPDSMML-4P-3,366(2)-19AR90SE-3,I89(4)-R-G6<1          | 1.52                         | 17            |
| 161            | KVW-IMPDSMML-4P-3,180(2)-3,CL-3,CL-13AR90SE-R-G6<1         | 1.49                         | 31            |
| 162            | KVW-IMPDSMML-4P-3,272(2)-3,CL-3,CL-13AR90SE-R-G6<1         | 1.47                         | 23            |
| 163            | KVW-IMPDSMML-4P-3,366(2)-3,CL-3,CL-13AR90SE-R-G6<1         | 1.45                         | 18            |
| 164            | KVW-IMPDSMML-4P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G6<1     | 1.34                         | 34            |
| 165            | KVW-IMPDSMML-4P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G6<1     | 1.32                         | 26            |
| 166            | KVW-IMPDSMML-4P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G6<1     | 1.31                         | 21            |
| 167            | KVW-IMPDSMML-4P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G6<1 | 1.17                         | 36            |
| 168            | KVW-IMPDSMML-4P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G6<1 | 1.16                         | 29            |
| 169            | KVW-IMPDSMML-4P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G6<1 | 1.15                         | 24            |
| 170            | KVW-IMPDSMML-4P-3,272(2)-19AR90SE-3,CL-G6<1                | 1.62                         | 21            |
| 171            | KVW-IMPDSMML-4P-3,180(2)-19AR90SE-3,I89(4)-G6<1            | 1.40                         | 35            |
| 172            | KVW-IMPDSMML-4P-3,272(2)-19AR90SE-3,I89(4)-G6<1            | 1.38                         | 26            |
| 173            | KVW-IMPDSMML-4P-3,366(2)-19AR90SE-3,I89(4)-G6<1            | 1.36                         | 20            |
| 174            | KVW-IMPDSMML-4P-3,180(2)-3,CL-3,CL-13AR90SE-G6<1           | 1.35                         | 34            |
| 175            | KVW-IMPDSMML-4P-3,272(2)-3,CL-3,CL-13AR90SE-G6<1           | 1.32                         | 26            |
| 176            | KVW-IMPDSMML-4P-3,366(2)-3,CL-3,CL-13AR90SE-G6<1           | 1.31                         | 21            |
| 177            | KVW-IMPDSMML-4P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G6<1       | 1.21                         | 36            |
| 178            | KVW-IMPDSMML-4P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G6<1       | 1.18                         | 29            |
| 179            | KVW-IMPDSMML-4P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G6<1       | 1.18                         | 24            |
| 180            | KVW-IMPDSMML-4P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G6<1   | 1.04                         | 39            |
| 181            | KVW-IMPDSMML-4P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G6<1   | 1.02                         | 32            |
| 182            | KVW-IMPDSMML-4P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G6<1   | 1.01                         | 27            |

### Imperial Series Large Sash Patio Door (2 Panel)

| Primary Designator                                                                      | DP Positive         | DP Negative           | Water Penetration Pressure | Air Leakage (Canada) |
|-----------------------------------------------------------------------------------------|---------------------|-----------------------|----------------------------|----------------------|
| Class R – PG35:<br>Size tested 2426 x 2019 mm (~96 x 80 in) –<br>Sliding Door (Type SD) | 1680 Pa<br>(35 psf) | -1680 Pa<br>(-35 psf) | 400 Pa<br>(8.35 psf)       | A3 Level             |

| Glass Option # | Model Code                                            | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|-------------------------------------------------------|------------------------------|---------------|
| 1              | KVW-IMPSDLRG-2P-3,272(2)-19AR90SE-3,CL-R              | 1.88                         | 14            |
| 2              | KVW-IMPSDLRG-2P-3,180(2)-19AR90SE-3,I89(4)-R          | 1.68                         | 27            |
| 3              | KVW-IMPSDLRG-2P-3,272(2)-19AR90SE-3,I89(4)-R          | 1.65                         | 19            |
| 4              | KVW-IMPSDLRG-2P-3,366(2)-19AR90SE-3,I89(4)-R          | 1.63                         | 15            |
| 5              | KVW-IMPSDLRG-2P-3,180(2)-3,CL-3,CL-13AR90SE-R         | 1.60                         | 27            |
| 6              | KVW-IMPSDLRG-2P-3,272(2)-3,CL-3,CL-13AR90SE-R         | 1.58                         | 20            |
| 7              | KVW-IMPSDLRG-2P-3,366(2)-3,CL-3,CL-13AR90SE-R         | 1.56                         | 16            |
| 8              | KVW-IMPSDLRG-2P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R     | 1.47                         | 30            |
| 9              | KVW-IMPSDLRG-2P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R     | 1.45                         | 23            |
| 10             | KVW-IMPSDLRG-2P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R     | 1.44                         | 18            |
| 11             | KVW-IMPSDLRG-2P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R | 1.31                         | 32            |
| 12             | KVW-IMPSDLRG-2P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R | 1.30                         | 25            |
| 13             | KVW-IMPSDLRG-2P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R | 1.29                         | 21            |
| 14             | KVW-IMPSDLRG-2P-3,272(2)-19AR90SE-3,CL                | 1.67                         | 19            |
| 15             | KVW-IMPSDLRG-2P-3,180(2)-19AR90SE-3,I89(4)            | 1.47                         | 32            |
| 16             | KVW-IMPSDLRG-2P-3,272(2)-19AR90SE-3,I89(4)            | 1.44                         | 24            |
| 17             | KVW-IMPSDLRG-2P-3,366(2)-19AR90SE-3,I89(4)            | 1.42                         | 19            |
| 18             | KVW-IMPSDLRG-2P-3,180(2)-3,CL-3,CL-13AR90SE           | 1.47                         | 30            |
| 19             | KVW-IMPSDLRG-2P-3,272(2)-3,CL-3,CL-13AR90SE           | 1.45                         | 23            |
| 20             | KVW-IMPSDLRG-2P-3,366(2)-3,CL-3,CL-13AR90SE           | 1.43                         | 19            |
| 21             | KVW-IMPSDLRG-2P-3,180(2)-3,CL-3,I89(6)-13AR90SE       | 1.34                         | 20            |
| 22             | KVW-IMPSDLRG-2P-3,272(2)-3,CL-3,I89(6)-13AR90SE       | 1.32                         | 20            |
| 23             | KVW-IMPSDLRG-2P-3,366(2)-3,CL-3,I89(6)-13AR90SE       | 1.31                         | 33            |
| 24             | KVW-IMPSDLRG-2P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE   | 1.18                         | 29            |
| 25             | KVW-IMPSDLRG-2P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE   | 1.17                         | 24            |
| 26             | KVW-IMPSDLRG-2P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE   | 1.16                         | 35            |
| 27             | KVW-IMPSDLRG-2P-3,272(2)-19AR90SE-3,CL-R-G1<1         | 1.88                         | 14            |
| 28             | KVW-IMPSDLRG-2P-3,180(2)-19AR90SE-3,I89(4)-R-G1<1     | 1.68                         | 27            |
| 29             | KVW-IMPSDLRG-2P-3,272(2)-19AR90SE-3,I89(4)-R-G1<1     | 1.65                         | 19            |
| 30             | KVW-IMPSDLRG-2P-3,366(2)-19AR90SE-3,I89(4)-R-G1<1     | 1.63                         | 15            |
| 31             | KVW-IMPSDLRG-2P-3,180(2)-3,CL-3,CL-13AR90SE-R-G1<1    | 1.60                         | 27            |



| Glass Option # | Model Code                                                | U-Value (W/m²K) | Energy Rating |
|----------------|-----------------------------------------------------------|-----------------|---------------|
| 32             | KVW-IMPDLRG-2P-3,272(2)-3,CL-3,CL-13AR90SE-R-G1<1         | 1.58            | 20            |
| 33             | KVW-IMPDLRG-2P-3,366(2)-3,CL-3,CL-13AR90SE-R-G1<1         | 1.56            | 16            |
| 34             | KVW-IMPDLRG-2P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G1<1     | 1.47            | 30            |
| 35             | KVW-IMPDLRG-2P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G1<1     | 1.45            | 23            |
| 36             | KVW-IMPDLRG-2P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G1<1     | 1.44            | 18            |
| 37             | KVW-IMPDLRG-2P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G1<1 | 1.31            | 32            |
| 38             | KVW-IMPDLRG-2P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G1<1 | 1.30            | 25            |
| 39             | KVW-IMPDLRG-2P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G1<1 | 1.29            | 21            |
| 40             | KVW-IMPDLRG-2P-3,272(2)-19AR90SE-3,CL-G1<1                | 1.67            | 19            |
| 41             | KVW-IMPDLRG-2P-3,180(2)-19AR90SE-3,I89(4)-G1<1            | 1.47            | 32            |
| 42             | KVW-IMPDLRG-2P-3,272(2)-19AR90SE-3,I89(4)-G1<1            | 1.44            | 24            |
| 43             | KVW-IMPDLRG-2P-3,366(2)-19AR90SE-3,I89(4)-G1<1            | 1.42            | 19            |
| 44             | KVW-IMPDLRG-2P-3,180(2)-3,CL-3,CL-13AR90SE-G1<1           | 1.47            | 30            |
| 45             | KVW-IMPDLRG-2P-3,272(2)-3,CL-3,CL-13AR90SE-G1<1           | 1.45            | 23            |
| 46             | KVW-IMPDLRG-2P-3,366(2)-3,CL-3,CL-13AR90SE-G1<1           | 1.32            | 18            |
| 47             | KVW-IMPDLRG-2P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G1<1       | 1.32            | 20            |
| 48             | KVW-IMPDLRG-2P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G1<1       | 1.31            | 33            |
| 49             | KVW-IMPDLRG-2P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G1<1       | 1.18            | 29            |
| 50             | KVW-IMPDLRG-2P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G1<1   | 1.17            | 24            |
| 51             | KVW-IMPDLRG-2P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G1<1   | 1.16            | 35            |
| 52             | KVW-IMPDLRG-2P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G1<1   | 1.05            | 31            |
| 53             | KVW-IMPDLRG-2P-3,272(2)-19AR90SE-3,CL-R-G2≥1              | 1.88            | 14            |
| 54             | KVW-IMPDLRG-2P-3,180(2)-19AR90SE-3,I89(4)-R-G2≥1          | 1.68            | 27            |
| 55             | KVW-IMPDLRG-2P-3,272(2)-19AR90SE-3,I89(4)-R-G2≥1          | 1.65            | 19            |
| 56             | KVW-IMPDLRG-2P-3,366(2)-19AR90SE-3,I89(4)-R-G2≥1          | 1.63            | 15            |
| 57             | KVW-IMPDLRG-2P-3,180(2)-3,CL-3,CL-13AR90SE-R-G2≥1         | 1.60            | 27            |
| 58             | KVW-IMPDLRG-2P-3,272(2)-3,CL-3,CL-13AR90SE-R-G2≥1         | 1.58            | 20            |
| 59             | KVW-IMPDLRG-2P-3,366(2)-3,CL-3,CL-13AR90SE-R-G2≥1         | 1.56            | 16            |
| 60             | KVW-IMPDLRG-2P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G2≥1     | 1.47            | 30            |
| 61             | KVW-IMPDLRG-2P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G2≥1     | 1.45            | 23            |
| 62             | KVW-IMPDLRG-2P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G2≥1     | 1.44            | 18            |
| 63             | KVW-IMPDLRG-2P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G2≥1 | 1.31            | 32            |
| 64             | KVW-IMPDLRG-2P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G2≥1 | 1.30            | 25            |
| 65             | KVW-IMPDLRG-2P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G2≥1 | 1.29            | 21            |
| 66             | KVW-IMPDLRG-2P-3,272(2)-19AR90SE-3,CL-G2≥1                | 1.67            | 19            |
| 67             | KVW-IMPDLRG-2P-3,180(2)-19AR90SE-3,I89(4)-G2≥1            | 1.47            | 32            |
| 68             | KVW-IMPDLRG-2P-3,272(2)-19AR90SE-3,I89(4)-G2≥1            | 1.44            | 24            |
| 69             | KVW-IMPDLRG-2P-3,366(2)-19AR90SE-3,I89(4)-G2≥1            | 1.42            | 19            |
| 70             | KVW-IMPDLRG-2P-3,180(2)-3,CL-3,CL-13AR90SE-G2≥1           | 1.47            | 30            |





| Glass Option # | Model Code                                                | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|-----------------------------------------------------------|------------------------------|---------------|
| 71             | KVW-IMPDLRG-2P-3,272(2)-3,CL-3,CL-13AR90SE-G2≥1           | 1.51                         | 21            |
| 72             | KVW-IMPDLRG-2P-3,366(2)-3,CL-3,CL-13AR90SE-G2≥1           | 1.40                         | 16            |
| 73             | KVW-IMPDLRG-2P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G2≥1       | 1.38                         | 19            |
| 74             | KVW-IMPDLRG-2P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G2≥1       | 1.37                         | 32            |
| 75             | KVW-IMPDLRG-2P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G2≥1       | 1.24                         | 27            |
| 76             | KVW-IMPDLRG-2P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G2≥1   | 1.23                         | 22            |
| 77             | KVW-IMPDLRG-2P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G2≥1   | 1.22                         | 34            |
| 78             | KVW-IMPDLRG-2P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G2≥1   | 1.05                         | 31            |
| 79             | KVW-IMPDLRG-2P-3,272(2)-19AR90SE-3,CL-R-G3<1              | 1.88                         | 14            |
| 80             | KVW-IMPDLRG-2P-3,180(2)-19AR90SE-3,I89(4)-R-G3<1          | 1.68                         | 27            |
| 81             | KVW-IMPDLRG-2P-3,272(2)-19AR90SE-3,I89(4)-R-G3<1          | 1.65                         | 19            |
| 82             | KVW-IMPDLRG-2P-3,366(2)-19AR90SE-3,I89(4)-R-G3<1          | 1.63                         | 15            |
| 83             | KVW-IMPDLRG-2P-3,180(2)-3,CL-3,CL-13AR90SE-R-G3<1         | 1.63                         | 18            |
| 84             | KVW-IMPDLRG-2P-3,272(2)-3,CL-3,CL-13AR90SE-R-G3<1         | 1.62                         | 13            |
| 85             | KVW-IMPDLRG-2P-3,366(2)-3,CL-3,CL-13AR90SE-R-G3<1         | 1.60                         | 25            |
| 86             | KVW-IMPDLRG-2P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G3<1     | 1.49                         | 20            |
| 87             | KVW-IMPDLRG-2P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G3<1     | 1.48                         | 16            |
| 88             | KVW-IMPDLRG-2P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G3<1     | 1.47                         | 27            |
| 89             | KVW-IMPDLRG-2P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G3<1 | 1.33                         | 24            |
| 90             | KVW-IMPDLRG-2P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G3<1 | 1.32                         | 19            |
| 91             | KVW-IMPDLRG-2P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G3<1 | 1.31                         | 29            |
| 92             | KVW-IMPDLRG-2P-3,272(2)-19AR90SE-3,CL-G3<1                | 1.88                         | 14            |
| 93             | KVW-IMPDLRG-2P-3,180(2)-19AR90SE-3,I89(4)-G3<1            | 1.68                         | 27            |
| 94             | KVW-IMPDLRG-2P-3,272(2)-19AR90SE-3,I89(4)-G3<1            | 1.65                         | 19            |
| 95             | KVW-IMPDLRG-2P-3,366(2)-19AR90SE-3,I89(4)-G3<1            | 1.63                         | 15            |
| 96             | KVW-IMPDLRG-2P-3,180(2)-3,CL-3,CL-13AR90SE-G3<1           | 1.50                         | 18            |
| 97             | KVW-IMPDLRG-2P-3,272(2)-3,CL-3,CL-13AR90SE-G3<1           | 1.49                         | 15            |
| 98             | KVW-IMPDLRG-2P-3,366(2)-3,CL-3,CL-13AR90SE-G3<1           | 1.47                         | 27            |
| 99             | KVW-IMPDLRG-2P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G3<1       | 1.36                         | 23            |
| 100            | KVW-IMPDLRG-2P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G3<1       | 1.34                         | 19            |
| 101            | KVW-IMPDLRG-2P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G3<1       | 1.33                         | 30            |
| 102            | KVW-IMPDLRG-2P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G3<1   | 1.19                         | 27            |
| 103            | KVW-IMPDLRG-2P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G3<1   | 1.19                         | 22            |
| 104            | KVW-IMPDLRG-2P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G3<1   | 1.18                         | 32            |
| 105            | KVW-IMPDLRG-2P-3,272(2)-19AR90SE-3,CL-R-G4≥1              | 1.88                         | 14            |
| 106            | KVW-IMPDLRG-2P-3,180(2)-19AR90SE-3,I89(4)-R-G4≥1          | 1.68                         | 27            |
| 107            | KVW-IMPDLRG-2P-3,272(2)-19AR90SE-3,I89(4)-R-G4≥1          | 1.65                         | 19            |
| 108            | KVW-IMPDLRG-2P-3,366(2)-19AR90SE-3,I89(4)-R-G4≥1          | 1.63                         | 15            |
| 109            | KVW-IMPDLRG-2P-3,180(2)-3,CL-3,CL-13AR90SE-R-G4≥1         | 1.65                         | 16            |



| Glass Option # | Model Code                                                | U-Value (W/m²K) | Energy Rating |
|----------------|-----------------------------------------------------------|-----------------|---------------|
| 110            | KVW-IMPDLRG-2P-3,272(2)-3,CL-3,CL-13AR90SE-R-G4≥1         | 1.63            | 11            |
| 111            | KVW-IMPDLRG-2P-3,366(2)-3,CL-3,CL-13AR90SE-R-G4≥1         | 1.62            | 22            |
| 112            | KVW-IMPDLRG-2P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G4≥1     | 1.50            | 18            |
| 113            | KVW-IMPDLRG-2P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G4≥1     | 1.49            | 15            |
| 114            | KVW-IMPDLRG-2P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G4≥1     | 1.48            | 24            |
| 115            | KVW-IMPDLRG-2P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G4≥1 | 1.33            | 22            |
| 116            | KVW-IMPDLRG-2P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G4≥1 | 1.32            | 19            |
| 117            | KVW-IMPDLRG-2P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G4≥1 | 1.32            | 27            |
| 118            | KVW-IMPDLRG-2P-3,272(2)-19AR90SE-3,CL-G4≥1                | 1.67            | 19            |
| 119            | KVW-IMPDLRG-2P-3,180(2)-19AR90SE-3,I89(4)-G4≥1            | 1.47            | 32            |
| 120            | KVW-IMPDLRG-2P-3,272(2)-19AR90SE-3,I89(4)-G4≥1            | 1.44            | 24            |
| 121            | KVW-IMPDLRG-2P-3,366(2)-19AR90SE-3,I89(4)-G4≥1            | 1.42            | 19            |
| 122            | KVW-IMPDLRG-2P-3,180(2)-3,CL-3,CL-13AR90SE-G4≥1           | 1.52            | 19            |
| 123            | KVW-IMPDLRG-2P-3,272(2)-3,CL-3,CL-13AR90SE-G4≥1           | 1.50            | 14            |
| 124            | KVW-IMPDLRG-2P-3,366(2)-3,CL-3,CL-13AR90SE-G4≥1           | 1.49            | 25            |
| 125            | KVW-IMPDLRG-2P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G4≥1       | 1.37            | 21            |
| 126            | KVW-IMPDLRG-2P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G4≥1       | 1.35            | 18            |
| 127            | KVW-IMPDLRG-2P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G4≥1       | 1.34            | 27            |
| 128            | KVW-IMPDLRG-2P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G4≥1   | 1.20            | 25            |
| 129            | KVW-IMPDLRG-2P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G4≥1   | 1.19            | 21            |
| 130            | KVW-IMPDLRG-2P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G4≥1   | 1.19            | 30            |
| 131            | KVW-IMPDLRG-2P-3,272(2)-19AR90SE-3,CL-R-G5<1              | 1.88            | 14            |
| 132            | KVW-IMPDLRG-2P-3,180(2)-19AR90SE-3,I89(4)-R-G5<1          | 1.68            | 27            |
| 133            | KVW-IMPDLRG-2P-3,272(2)-19AR90SE-3,I89(4)-R-G5<1          | 1.65            | 19            |
| 134            | KVW-IMPDLRG-2P-3,366(2)-19AR90SE-3,I89(4)-R-G5<1          | 1.63            | 15            |
| 135            | KVW-IMPDLRG-2P-3,180(2)-3,CL-3,CL-13AR90SE-R-G5<1         | 1.60            | 27            |
| 136            | KVW-IMPDLRG-2P-3,272(2)-3,CL-3,CL-13AR90SE-R-G5<1         | 1.58            | 20            |
| 137            | KVW-IMPDLRG-2P-3,366(2)-3,CL-3,CL-13AR90SE-R-G5<1         | 1.56            | 16            |
| 138            | KVW-IMPDLRG-2P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G5<1     | 1.47            | 30            |
| 139            | KVW-IMPDLRG-2P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G5<1     | 1.45            | 23            |
| 140            | KVW-IMPDLRG-2P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G5<1     | 1.44            | 18            |
| 141            | KVW-IMPDLRG-2P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G5<1 | 1.31            | 32            |
| 142            | KVW-IMPDLRG-2P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G5<1 | 1.30            | 25            |
| 143            | KVW-IMPDLRG-2P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G5<1 | 1.29            | 21            |
| 144            | KVW-IMPDLRG-2P-3,272(2)-19AR90SE-3,CL-G5<1                | 1.67            | 19            |
| 145            | KVW-IMPDLRG-2P-3,180(2)-19AR90SE-3,I89(4)-G5<1            | 1.47            | 32            |
| 146            | KVW-IMPDLRG-2P-3,272(2)-19AR90SE-3,I89(4)-G5<1            | 1.44            | 24            |
| 147            | KVW-IMPDLRG-2P-3,366(2)-19AR90SE-3,I89(4)-G5<1            | 1.42            | 19            |
| 148            | KVW-IMPDLRG-2P-3,180(2)-3,CL-3,CL-13AR90SE-G5<1           | 1.47            | 30            |



| Glass Option # | Model Code                                                | U-Value (W/m²K) | Energy Rating |
|----------------|-----------------------------------------------------------|-----------------|---------------|
| 149            | KVW-IMPDLRG-2P-3,272(2)-3,CL-3,CL-13AR90SE-G5<1           | 1.45            | 23            |
| 150            | KVW-IMPDLRG-2P-3,366(2)-3,CL-3,CL-13AR90SE-G5<1           | 1.32            | 18            |
| 151            | KVW-IMPDLRG-2P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G5<1       | 1.32            | 20            |
| 152            | KVW-IMPDLRG-2P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G5<1       | 1.31            | 33            |
| 153            | KVW-IMPDLRG-2P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G5<1       | 1.18            | 29            |
| 154            | KVW-IMPDLRG-2P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G5<1   | 1.17            | 24            |
| 155            | KVW-IMPDLRG-2P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G5<1   | 1.16            | 35            |
| 156            | KVW-IMPDLRG-2P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G5<1   | 1.05            | 31            |
| 157            | KVW-IMPDLRG-2P-3,272(2)-19AR90SE-3,CL-R-G6<1              | 1.88            | 14            |
| 158            | KVW-IMPDLRG-2P-3,180(2)-19AR90SE-3,I89(4)-R-G6<1          | 1.68            | 27            |
| 159            | KVW-IMPDLRG-2P-3,272(2)-19AR90SE-3,I89(4)-R-G6<1          | 1.65            | 19            |
| 160            | KVW-IMPDLRG-2P-3,366(2)-19AR90SE-3,I89(4)-R-G6<1          | 1.63            | 15            |
| 161            | KVW-IMPDLRG-2P-3,180(2)-3,CL-3,CL-13AR90SE-R-G6<1         | 1.60            | 27            |
| 162            | KVW-IMPDLRG-2P-3,272(2)-3,CL-3,CL-13AR90SE-R-G6<1         | 1.58            | 20            |
| 163            | KVW-IMPDLRG-2P-3,366(2)-3,CL-3,CL-13AR90SE-R-G6<1         | 1.56            | 16            |
| 164            | KVW-IMPDLRG-2P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G6<1     | 1.47            | 30            |
| 165            | KVW-IMPDLRG-2P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G6<1     | 1.45            | 23            |
| 166            | KVW-IMPDLRG-2P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G6<1     | 1.44            | 18            |
| 167            | KVW-IMPDLRG-2P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G6<1 | 1.31            | 32            |
| 168            | KVW-IMPDLRG-2P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G6<1 | 1.30            | 25            |
| 169            | KVW-IMPDLRG-2P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G6<1 | 1.29            | 21            |
| 170            | KVW-IMPDLRG-2P-3,272(2)-19AR90SE-3,CL-G6<1                | 1.67            | 19            |
| 171            | KVW-IMPDLRG-2P-3,180(2)-19AR90SE-3,I89(4)-G6<1            | 1.47            | 32            |
| 172            | KVW-IMPDLRG-2P-3,272(2)-19AR90SE-3,I89(4)-G6<1            | 1.44            | 24            |
| 173            | KVW-IMPDLRG-2P-3,366(2)-19AR90SE-3,I89(4)-G6<1            | 1.42            | 19            |
| 174            | KVW-IMPDLRG-2P-3,180(2)-3,CL-3,CL-13AR90SE-G6<1           | 1.47            | 30            |
| 175            | KVW-IMPDLRG-2P-3,272(2)-3,CL-3,CL-13AR90SE-G6<1           | 1.45            | 23            |
| 176            | KVW-IMPDLRG-2P-3,366(2)-3,CL-3,CL-13AR90SE-G6<1           | 1.32            | 18            |
| 177            | KVW-IMPDLRG-2P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G6<1       | 1.32            | 20            |
| 178            | KVW-IMPDLRG-2P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G6<1       | 1.31            | 33            |
| 179            | KVW-IMPDLRG-2P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G6<1       | 1.18            | 29            |
| 180            | KVW-IMPDLRG-2P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G6<1   | 1.17            | 24            |
| 181            | KVW-IMPDLRG-2P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G6<1   | 1.16            | 35            |
| 182            | KVW-IMPDLRG-2P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G6<1   | 1.05            | 31            |

### Imperial Series Large Sash Patio Door (3 Panel)

| Primary Designator                                                                       | DP Positive         | DP Negative           | Water Penetration Pressure | Air Leakage (Canada) |
|------------------------------------------------------------------------------------------|---------------------|-----------------------|----------------------------|----------------------|
| Class R – PG40:<br>Size tested 3572 x 2019 mm (~141 x 80 in) –<br>Sliding Door (Type SD) | 1920 Pa<br>(40 psf) | -1920 Pa<br>(-40 psf) | 360 Pa<br>(7.52 psf)       | A3 Level             |

| Glass Option # | Model Code                                           | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|------------------------------------------------------|------------------------------|---------------|
| 1              | KVW-IMPDLRG-3P-3,272(2)-19AR90SE-3,CL-R              | 1.88                         | 14            |
| 2              | KVW-IMPDLRG-3P-3,180(2)-19AR90SE-3,I89(4)-R          | 1.68                         | 27            |
| 3              | KVW-IMPDLRG-3P-3,272(2)-19AR90SE-3,I89(4)-R          | 1.65                         | 19            |
| 4              | KVW-IMPDLRG-3P-3,366(2)-19AR90SE-3,I89(4)-R          | 1.63                         | 15            |
| 5              | KVW-IMPDLRG-3P-3,180(2)-3,CL-3,CL-13AR90SE-R         | 1.60                         | 27            |
| 6              | KVW-IMPDLRG-3P-3,272(2)-3,CL-3,CL-13AR90SE-R         | 1.58                         | 20            |
| 7              | KVW-IMPDLRG-3P-3,366(2)-3,CL-3,CL-13AR90SE-R         | 1.56                         | 16            |
| 8              | KVW-IMPDLRG-3P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R     | 1.47                         | 30            |
| 9              | KVW-IMPDLRG-3P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R     | 1.45                         | 23            |
| 10             | KVW-IMPDLRG-3P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R     | 1.44                         | 18            |
| 11             | KVW-IMPDLRG-3P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R | 1.31                         | 32            |
| 12             | KVW-IMPDLRG-3P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R | 1.30                         | 25            |
| 13             | KVW-IMPDLRG-3P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R | 1.29                         | 21            |
| 14             | KVW-IMPDLRG-3P-3,272(2)-19AR90SE-3,CL                | 1.67                         | 19            |
| 15             | KVW-IMPDLRG-3P-3,180(2)-19AR90SE-3,I89(4)            | 1.47                         | 32            |
| 16             | KVW-IMPDLRG-3P-3,272(2)-19AR90SE-3,I89(4)            | 1.44                         | 24            |
| 17             | KVW-IMPDLRG-3P-3,366(2)-19AR90SE-3,I89(4)            | 1.42                         | 19            |
| 18             | KVW-IMPDLRG-3P-3,180(2)-3,CL-3,CL-13AR90SE           | 1.47                         | 30            |
| 19             | KVW-IMPDLRG-3P-3,272(2)-3,CL-3,CL-13AR90SE           | 1.45                         | 23            |
| 20             | KVW-IMPDLRG-3P-3,366(2)-3,CL-3,CL-13AR90SE           | 1.43                         | 19            |
| 21             | KVW-IMPDLRG-3P-3,180(2)-3,CL-3,I89(6)-13AR90SE       | 1.34                         | 20            |
| 22             | KVW-IMPDLRG-3P-3,272(2)-3,CL-3,I89(6)-13AR90SE       | 1.32                         | 20            |
| 23             | KVW-IMPDLRG-3P-3,366(2)-3,CL-3,I89(6)-13AR90SE       | 1.31                         | 33            |
| 24             | KVW-IMPDLRG-3P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE   | 1.18                         | 29            |
| 25             | KVW-IMPDLRG-3P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE   | 1.17                         | 24            |
| 26             | KVW-IMPDLRG-3P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE   | 1.16                         | 35            |
| 27             | KVW-IMPDLRG-3P-3,272(2)-19AR90SE-3,CL-R-G1<1         | 1.88                         | 14            |
| 28             | KVW-IMPDLRG-3P-3,180(2)-19AR90SE-3,I89(4)-R-G1<1     | 1.68                         | 27            |
| 29             | KVW-IMPDLRG-3P-3,272(2)-19AR90SE-3,I89(4)-R-G1<1     | 1.65                         | 19            |
| 30             | KVW-IMPDLRG-3P-3,366(2)-19AR90SE-3,I89(4)-R-G1<1     | 1.63                         | 15            |
| 31             | KVW-IMPDLRG-3P-3,180(2)-3,CL-3,CL-13AR90SE-R-G1<1    | 1.60                         | 27            |



| Glass Option # | Model Code                                                | U-Value (W/m²K) | Energy Rating |
|----------------|-----------------------------------------------------------|-----------------|---------------|
| 32             | KVW-IMPDLRG-3P-3,272(2)-3,CL-3,CL-13AR90SE-R-G1<1         | 1.58            | 20            |
| 33             | KVW-IMPDLRG-3P-3,366(2)-3,CL-3,CL-13AR90SE-R-G1<1         | 1.56            | 16            |
| 34             | KVW-IMPDLRG-3P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G1<1     | 1.47            | 30            |
| 35             | KVW-IMPDLRG-3P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G1<1     | 1.45            | 23            |
| 36             | KVW-IMPDLRG-3P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G1<1     | 1.44            | 18            |
| 37             | KVW-IMPDLRG-3P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G1<1 | 1.31            | 32            |
| 38             | KVW-IMPDLRG-3P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G1<1 | 1.30            | 25            |
| 39             | KVW-IMPDLRG-3P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G1<1 | 1.29            | 21            |
| 40             | KVW-IMPDLRG-3P-3,272(2)-19AR90SE-3,CL-G1<1                | 1.67            | 19            |
| 41             | KVW-IMPDLRG-3P-3,180(2)-19AR90SE-3,I89(4)-G1<1            | 1.47            | 32            |
| 42             | KVW-IMPDLRG-3P-3,272(2)-19AR90SE-3,I89(4)-G1<1            | 1.44            | 24            |
| 43             | KVW-IMPDLRG-3P-3,366(2)-19AR90SE-3,I89(4)-G1<1            | 1.42            | 19            |
| 44             | KVW-IMPDLRG-3P-3,180(2)-3,CL-3,CL-13AR90SE-G1<1           | 1.47            | 30            |
| 45             | KVW-IMPDLRG-3P-3,272(2)-3,CL-3,CL-13AR90SE-G1<1           | 1.45            | 23            |
| 46             | KVW-IMPDLRG-3P-3,366(2)-3,CL-3,CL-13AR90SE-G1<1           | 1.32            | 18            |
| 47             | KVW-IMPDLRG-3P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G1<1       | 1.32            | 20            |
| 48             | KVW-IMPDLRG-3P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G1<1       | 1.31            | 33            |
| 49             | KVW-IMPDLRG-3P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G1<1       | 1.18            | 29            |
| 50             | KVW-IMPDLRG-3P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G1<1   | 1.17            | 24            |
| 51             | KVW-IMPDLRG-3P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G1<1   | 1.16            | 35            |
| 52             | KVW-IMPDLRG-3P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G1<1   | 1.05            | 31            |
| 53             | KVW-IMPDLRG-3P-3,272(2)-19AR90SE-3,CL-R-G2≥1              | 1.88            | 14            |
| 54             | KVW-IMPDLRG-3P-3,180(2)-19AR90SE-3,I89(4)-R-G2≥1          | 1.68            | 27            |
| 55             | KVW-IMPDLRG-3P-3,272(2)-19AR90SE-3,I89(4)-R-G2≥1          | 1.65            | 19            |
| 56             | KVW-IMPDLRG-3P-3,366(2)-19AR90SE-3,I89(4)-R-G2≥1          | 1.63            | 15            |
| 57             | KVW-IMPDLRG-3P-3,180(2)-3,CL-3,CL-13AR90SE-R-G2≥1         | 1.60            | 27            |
| 58             | KVW-IMPDLRG-3P-3,272(2)-3,CL-3,CL-13AR90SE-R-G2≥1         | 1.58            | 20            |
| 59             | KVW-IMPDLRG-3P-3,366(2)-3,CL-3,CL-13AR90SE-R-G2≥1         | 1.56            | 16            |
| 60             | KVW-IMPDLRG-3P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G2≥1     | 1.47            | 30            |
| 61             | KVW-IMPDLRG-3P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G2≥1     | 1.45            | 23            |
| 62             | KVW-IMPDLRG-3P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G2≥1     | 1.44            | 18            |
| 63             | KVW-IMPDLRG-3P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G2≥1 | 1.31            | 32            |
| 64             | KVW-IMPDLRG-3P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G2≥1 | 1.30            | 25            |
| 65             | KVW-IMPDLRG-3P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G2≥1 | 1.29            | 21            |
| 66             | KVW-IMPDLRG-3P-3,272(2)-19AR90SE-3,CL-G2≥1                | 1.67            | 19            |
| 67             | KVW-IMPDLRG-3P-3,180(2)-19AR90SE-3,I89(4)-G2≥1            | 1.47            | 32            |
| 68             | KVW-IMPDLRG-3P-3,272(2)-19AR90SE-3,I89(4)-G2≥1            | 1.44            | 24            |
| 69             | KVW-IMPDLRG-3P-3,366(2)-19AR90SE-3,I89(4)-G2≥1            | 1.42            | 19            |
| 70             | KVW-IMPDLRG-3P-3,180(2)-3,CL-3,CL-13AR90SE-G2≥1           | 1.47            | 30            |





| Glass Option # | Model Code                                                | U-Value (W/m²K) | Energy Rating |
|----------------|-----------------------------------------------------------|-----------------|---------------|
| 71             | KVW-IMPDLRG-3P-3,272(2)-3,CL-3,CL-13AR90SE-G2≥1           | 1.51            | 21            |
| 72             | KVW-IMPDLRG-3P-3,366(2)-3,CL-3,CL-13AR90SE-G2≥1           | 1.40            | 16            |
| 73             | KVW-IMPDLRG-3P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G2≥1       | 1.38            | 19            |
| 74             | KVW-IMPDLRG-3P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G2≥1       | 1.37            | 32            |
| 75             | KVW-IMPDLRG-3P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G2≥1       | 1.24            | 27            |
| 76             | KVW-IMPDLRG-3P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G2≥1   | 1.23            | 22            |
| 77             | KVW-IMPDLRG-3P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G2≥1   | 1.22            | 34            |
| 78             | KVW-IMPDLRG-3P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G2≥1   | 1.05            | 31            |
| 79             | KVW-IMPDLRG-3P-3,272(2)-19AR90SE-3,CL-R-G3<1              | 1.88            | 14            |
| 80             | KVW-IMPDLRG-3P-3,180(2)-19AR90SE-3,I89(4)-R-G3<1          | 1.68            | 27            |
| 81             | KVW-IMPDLRG-3P-3,272(2)-19AR90SE-3,I89(4)-R-G3<1          | 1.65            | 19            |
| 82             | KVW-IMPDLRG-3P-3,366(2)-19AR90SE-3,I89(4)-R-G3<1          | 1.63            | 15            |
| 83             | KVW-IMPDLRG-3P-3,180(2)-3,CL-3,CL-13AR90SE-R-G3<1         | 1.63            | 18            |
| 84             | KVW-IMPDLRG-3P-3,272(2)-3,CL-3,CL-13AR90SE-R-G3<1         | 1.62            | 13            |
| 85             | KVW-IMPDLRG-3P-3,366(2)-3,CL-3,CL-13AR90SE-R-G3<1         | 1.60            | 25            |
| 86             | KVW-IMPDLRG-3P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G3<1     | 1.49            | 20            |
| 87             | KVW-IMPDLRG-3P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G3<1     | 1.48            | 16            |
| 88             | KVW-IMPDLRG-3P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G3<1     | 1.47            | 27            |
| 89             | KVW-IMPDLRG-3P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G3<1 | 1.33            | 24            |
| 90             | KVW-IMPDLRG-3P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G3<1 | 1.32            | 19            |
| 91             | KVW-IMPDLRG-3P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G3<1 | 1.31            | 29            |
| 92             | KVW-IMPDLRG-3P-3,272(2)-19AR90SE-3,CL-G3<1                | 1.88            | 14            |
| 93             | KVW-IMPDLRG-3P-3,180(2)-19AR90SE-3,I89(4)-G3<1            | 1.68            | 27            |
| 94             | KVW-IMPDLRG-3P-3,272(2)-19AR90SE-3,I89(4)-G3<1            | 1.65            | 19            |
| 95             | KVW-IMPDLRG-3P-3,366(2)-19AR90SE-3,I89(4)-G3<1            | 1.63            | 15            |
| 96             | KVW-IMPDLRG-3P-3,180(2)-3,CL-3,CL-13AR90SE-G3<1           | 1.50            | 18            |
| 97             | KVW-IMPDLRG-3P-3,272(2)-3,CL-3,CL-13AR90SE-G3<1           | 1.49            | 15            |
| 98             | KVW-IMPDLRG-3P-3,366(2)-3,CL-3,CL-13AR90SE-G3<1           | 1.47            | 27            |
| 99             | KVW-IMPDLRG-3P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G3<1       | 1.36            | 23            |
| 100            | KVW-IMPDLRG-3P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G3<1       | 1.34            | 19            |
| 101            | KVW-IMPDLRG-3P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G3<1       | 1.33            | 30            |
| 102            | KVW-IMPDLRG-3P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G3<1   | 1.19            | 27            |
| 103            | KVW-IMPDLRG-3P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G3<1   | 1.19            | 22            |
| 104            | KVW-IMPDLRG-3P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G3<1   | 1.18            | 32            |
| 105            | KVW-IMPDLRG-3P-3,272(2)-19AR90SE-3,CL-R-G4≥1              | 1.88            | 14            |
| 106            | KVW-IMPDLRG-3P-3,180(2)-19AR90SE-3,I89(4)-R-G4≥1          | 1.68            | 27            |
| 107            | KVW-IMPDLRG-3P-3,272(2)-19AR90SE-3,I89(4)-R-G4≥1          | 1.65            | 19            |
| 108            | KVW-IMPDLRG-3P-3,366(2)-19AR90SE-3,I89(4)-R-G4≥1          | 1.63            | 15            |
| 109            | KVW-IMPDLRG-3P-3,180(2)-3,CL-3,CL-13AR90SE-R-G4≥1         | 1.65            | 16            |



| Glass Option # | Model Code                                                | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|-----------------------------------------------------------|------------------------------|---------------|
| 110            | KVW-IMPDLRG-3P-3,272(2)-3,CL-3,CL-13AR90SE-R-G4≥1         | 1.63                         | 11            |
| 111            | KVW-IMPDLRG-3P-3,366(2)-3,CL-3,CL-13AR90SE-R-G4≥1         | 1.62                         | 22            |
| 112            | KVW-IMPDLRG-3P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G4≥1     | 1.50                         | 18            |
| 113            | KVW-IMPDLRG-3P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G4≥1     | 1.49                         | 15            |
| 114            | KVW-IMPDLRG-3P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G4≥1     | 1.48                         | 24            |
| 115            | KVW-IMPDLRG-3P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G4≥1 | 1.33                         | 22            |
| 116            | KVW-IMPDLRG-3P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G4≥1 | 1.32                         | 19            |
| 117            | KVW-IMPDLRG-3P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G4≥1 | 1.32                         | 27            |
| 118            | KVW-IMPDLRG-3P-3,272(2)-19AR90SE-3,CL-G4≥1                | 1.67                         | 19            |
| 119            | KVW-IMPDLRG-3P-3,180(2)-19AR90SE-3,I89(4)-G4≥1            | 1.47                         | 32            |
| 120            | KVW-IMPDLRG-3P-3,272(2)-19AR90SE-3,I89(4)-G4≥1            | 1.44                         | 24            |
| 121            | KVW-IMPDLRG-3P-3,366(2)-19AR90SE-3,I89(4)-G4≥1            | 1.42                         | 19            |
| 122            | KVW-IMPDLRG-3P-3,180(2)-3,CL-3,CL-13AR90SE-G4≥1           | 1.52                         | 19            |
| 123            | KVW-IMPDLRG-3P-3,272(2)-3,CL-3,CL-13AR90SE-G4≥1           | 1.50                         | 14            |
| 124            | KVW-IMPDLRG-3P-3,366(2)-3,CL-3,CL-13AR90SE-G4≥1           | 1.49                         | 25            |
| 125            | KVW-IMPDLRG-3P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G4≥1       | 1.37                         | 21            |
| 126            | KVW-IMPDLRG-3P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G4≥1       | 1.35                         | 18            |
| 127            | KVW-IMPDLRG-3P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G4≥1       | 1.34                         | 27            |
| 128            | KVW-IMPDLRG-3P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G4≥1   | 1.20                         | 25            |
| 129            | KVW-IMPDLRG-3P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G4≥1   | 1.19                         | 21            |
| 130            | KVW-IMPDLRG-3P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G4≥1   | 1.19                         | 30            |
| 131            | KVW-IMPDLRG-3P-3,272(2)-19AR90SE-3,CL-R-G5<1              | 1.88                         | 14            |
| 132            | KVW-IMPDLRG-3P-3,180(2)-19AR90SE-3,I89(4)-R-G5<1          | 1.68                         | 27            |
| 133            | KVW-IMPDLRG-3P-3,272(2)-19AR90SE-3,I89(4)-R-G5<1          | 1.65                         | 19            |
| 134            | KVW-IMPDLRG-3P-3,366(2)-19AR90SE-3,I89(4)-R-G5<1          | 1.63                         | 15            |
| 135            | KVW-IMPDLRG-3P-3,180(2)-3,CL-3,CL-13AR90SE-R-G5<1         | 1.60                         | 27            |
| 136            | KVW-IMPDLRG-3P-3,272(2)-3,CL-3,CL-13AR90SE-R-G5<1         | 1.58                         | 20            |
| 137            | KVW-IMPDLRG-3P-3,366(2)-3,CL-3,CL-13AR90SE-R-G5<1         | 1.56                         | 16            |
| 138            | KVW-IMPDLRG-3P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G5<1     | 1.47                         | 30            |
| 139            | KVW-IMPDLRG-3P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G5<1     | 1.45                         | 23            |
| 140            | KVW-IMPDLRG-3P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G5<1     | 1.44                         | 18            |
| 141            | KVW-IMPDLRG-3P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G5<1 | 1.31                         | 32            |
| 142            | KVW-IMPDLRG-3P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G5<1 | 1.30                         | 25            |
| 143            | KVW-IMPDLRG-3P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G5<1 | 1.29                         | 21            |
| 144            | KVW-IMPDLRG-3P-3,272(2)-19AR90SE-3,CL-G5<1                | 1.67                         | 19            |
| 145            | KVW-IMPDLRG-3P-3,180(2)-19AR90SE-3,I89(4)-G5<1            | 1.47                         | 32            |
| 146            | KVW-IMPDLRG-3P-3,272(2)-19AR90SE-3,I89(4)-G5<1            | 1.44                         | 24            |
| 147            | KVW-IMPDLRG-3P-3,366(2)-19AR90SE-3,I89(4)-G5<1            | 1.42                         | 19            |
| 148            | KVW-IMPDLRG-3P-3,180(2)-3,CL-3,CL-13AR90SE-G5<1           | 1.47                         | 30            |



| Glass Option # | Model Code                                                | U-Value (W/m²K) | Energy Rating |
|----------------|-----------------------------------------------------------|-----------------|---------------|
| 149            | KVW-IMPDLRG-3P-3,272(2)-3,CL-3,CL-13AR90SE-G5<1           | 1.45            | 23            |
| 150            | KVW-IMPDLRG-3P-3,366(2)-3,CL-3,CL-13AR90SE-G5<1           | 1.32            | 18            |
| 151            | KVW-IMPDLRG-3P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G5<1       | 1.32            | 20            |
| 152            | KVW-IMPDLRG-3P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G5<1       | 1.31            | 33            |
| 153            | KVW-IMPDLRG-3P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G5<1       | 1.18            | 29            |
| 154            | KVW-IMPDLRG-3P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G5<1   | 1.17            | 24            |
| 155            | KVW-IMPDLRG-3P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G5<1   | 1.16            | 35            |
| 156            | KVW-IMPDLRG-3P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G5<1   | 1.05            | 31            |
| 157            | KVW-IMPDLRG-3P-3,272(2)-19AR90SE-3,CL-R-G6<1              | 1.88            | 14            |
| 158            | KVW-IMPDLRG-3P-3,180(2)-19AR90SE-3,I89(4)-R-G6<1          | 1.68            | 27            |
| 159            | KVW-IMPDLRG-3P-3,272(2)-19AR90SE-3,I89(4)-R-G6<1          | 1.65            | 19            |
| 160            | KVW-IMPDLRG-3P-3,366(2)-19AR90SE-3,I89(4)-R-G6<1          | 1.63            | 15            |
| 161            | KVW-IMPDLRG-3P-3,180(2)-3,CL-3,CL-13AR90SE-R-G6<1         | 1.60            | 27            |
| 162            | KVW-IMPDLRG-3P-3,272(2)-3,CL-3,CL-13AR90SE-R-G6<1         | 1.58            | 20            |
| 163            | KVW-IMPDLRG-3P-3,366(2)-3,CL-3,CL-13AR90SE-R-G6<1         | 1.56            | 16            |
| 164            | KVW-IMPDLRG-3P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G6<1     | 1.47            | 30            |
| 165            | KVW-IMPDLRG-3P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G6<1     | 1.45            | 23            |
| 166            | KVW-IMPDLRG-3P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G6<1     | 1.44            | 18            |
| 167            | KVW-IMPDLRG-3P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G6<1 | 1.31            | 32            |
| 168            | KVW-IMPDLRG-3P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G6<1 | 1.30            | 25            |
| 169            | KVW-IMPDLRG-3P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G6<1 | 1.29            | 21            |
| 170            | KVW-IMPDLRG-3P-3,272(2)-19AR90SE-3,CL-G6<1                | 1.67            | 19            |
| 171            | KVW-IMPDLRG-3P-3,180(2)-19AR90SE-3,I89(4)-G6<1            | 1.47            | 32            |
| 172            | KVW-IMPDLRG-3P-3,272(2)-19AR90SE-3,I89(4)-G6<1            | 1.44            | 24            |
| 173            | KVW-IMPDLRG-3P-3,366(2)-19AR90SE-3,I89(4)-G6<1            | 1.42            | 19            |
| 174            | KVW-IMPDLRG-3P-3,180(2)-3,CL-3,CL-13AR90SE-G6<1           | 1.47            | 30            |
| 175            | KVW-IMPDLRG-3P-3,272(2)-3,CL-3,CL-13AR90SE-G6<1           | 1.45            | 23            |
| 176            | KVW-IMPDLRG-3P-3,366(2)-3,CL-3,CL-13AR90SE-G6<1           | 1.32            | 18            |
| 177            | KVW-IMPDLRG-3P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G6<1       | 1.32            | 20            |
| 178            | KVW-IMPDLRG-3P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G6<1       | 1.31            | 33            |
| 179            | KVW-IMPDLRG-3P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G6<1       | 1.18            | 29            |
| 180            | KVW-IMPDLRG-3P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G6<1   | 1.17            | 24            |
| 181            | KVW-IMPDLRG-3P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G6<1   | 1.16            | 35            |
| 182            | KVW-IMPDLRG-3P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G6<1   | 1.05            | 31            |

### Imperial Series Large Sash Patio Door (4 Panel)

| Primary Designator                                                                       | DP Positive         | DP Negative           | Water Penetration Pressure | Air Leakage (Canada) |
|------------------------------------------------------------------------------------------|---------------------|-----------------------|----------------------------|----------------------|
| Class R – PG35:<br>Size tested 4820 x 2019 mm (~190 x 80 in) –<br>Sliding Door (Type SD) | 1680 Pa<br>(35 psf) | -1680 Pa<br>(-35 psf) | 290 Pa<br>(6.06 psf)       | A3 Level             |

| Glass Option # | Model Code                                            | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|-------------------------------------------------------|------------------------------|---------------|
| 1              | KVW-IMPSDLRG-4P-3,272(2)-19AR90SE-3,CL-R              | 1.88                         | 14            |
| 2              | KVW-IMPSDLRG-4P-3,180(2)-19AR90SE-3,I89(4)-R          | 1.68                         | 27            |
| 3              | KVW-IMPSDLRG-4P-3,272(2)-19AR90SE-3,I89(4)-R          | 1.65                         | 19            |
| 4              | KVW-IMPSDLRG-4P-3,366(2)-19AR90SE-3,I89(4)-R          | 1.63                         | 14            |
| 5              | KVW-IMPSDLRG-4P-3,180(2)-3,CL-3,CL-13AR90SE-R         | 1.60                         | 27            |
| 6              | KVW-IMPSDLRG-4P-3,272(2)-3,CL-3,CL-13AR90SE-R         | 1.58                         | 20            |
| 7              | KVW-IMPSDLRG-4P-3,366(2)-3,CL-3,CL-13AR90SE-R         | 1.56                         | 15            |
| 8              | KVW-IMPSDLRG-4P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R     | 1.47                         | 30            |
| 9              | KVW-IMPSDLRG-4P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R     | 1.45                         | 22            |
| 10             | KVW-IMPSDLRG-4P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R     | 1.44                         | 17            |
| 11             | KVW-IMPSDLRG-4P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R | 1.31                         | 32            |
| 12             | KVW-IMPSDLRG-4P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R | 1.30                         | 25            |
| 13             | KVW-IMPSDLRG-4P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R | 1.29                         | 21            |
| 14             | KVW-IMPSDLRG-4P-3,272(2)-19AR90SE-3,CL                | 1.67                         | 19            |
| 15             | KVW-IMPSDLRG-4P-3,180(2)-19AR90SE-3,I89(4)            | 1.47                         | 32            |
| 16             | KVW-IMPSDLRG-4P-3,272(2)-19AR90SE-3,I89(4)            | 1.44                         | 24            |
| 17             | KVW-IMPSDLRG-4P-3,366(2)-19AR90SE-3,I89(4)            | 1.42                         | 19            |
| 18             | KVW-IMPSDLRG-4P-3,180(2)-3,CL-3,CL-13AR90SE           | 1.47                         | 30            |
| 19             | KVW-IMPSDLRG-4P-3,272(2)-3,CL-3,CL-13AR90SE           | 1.45                         | 22            |
| 20             | KVW-IMPSDLRG-4P-3,366(2)-3,CL-3,CL-13AR90SE           | 1.43                         | 19            |
| 21             | KVW-IMPSDLRG-4P-3,180(2)-3,CL-3,I89(6)-13AR90SE       | 1.34                         | 20            |
| 22             | KVW-IMPSDLRG-4P-3,272(2)-3,CL-3,I89(6)-13AR90SE       | 1.32                         | 20            |
| 23             | KVW-IMPSDLRG-4P-3,366(2)-3,CL-3,I89(6)-13AR90SE       | 1.31                         | 33            |
| 24             | KVW-IMPSDLRG-4P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE   | 1.18                         | 28            |
| 25             | KVW-IMPSDLRG-4P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE   | 1.17                         | 23            |
| 26             | KVW-IMPSDLRG-4P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE   | 1.16                         | 35            |
| 27             | KVW-IMPSDLRG-4P-3,272(2)-19AR90SE-3,CL-R-G1<1         | 1.88                         | 14            |
| 28             | KVW-IMPSDLRG-4P-3,180(2)-19AR90SE-3,I89(4)-R-G1<1     | 1.68                         | 27            |
| 29             | KVW-IMPSDLRG-4P-3,272(2)-19AR90SE-3,I89(4)-R-G1<1     | 1.65                         | 19            |
| 30             | KVW-IMPSDLRG-4P-3,366(2)-19AR90SE-3,I89(4)-R-G1<1     | 1.63                         | 14            |
| 31             | KVW-IMPSDLRG-4P-3,180(2)-3,CL-3,CL-13AR90SE-R-G1<1    | 1.60                         | 27            |



| Glass Option # | Model Code                                                | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|-----------------------------------------------------------|------------------------------|---------------|
| 32             | KVW-IMPDLRG-4P-3,272(2)-3,CL-3,CL-13AR90SE-R-G1<1         | 1.58                         | 20            |
| 33             | KVW-IMPDLRG-4P-3,366(2)-3,CL-3,CL-13AR90SE-R-G1<1         | 1.56                         | 15            |
| 34             | KVW-IMPDLRG-4P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G1<1     | 1.47                         | 30            |
| 35             | KVW-IMPDLRG-4P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G1<1     | 1.45                         | 22            |
| 36             | KVW-IMPDLRG-4P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G1<1     | 1.44                         | 17            |
| 37             | KVW-IMPDLRG-4P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G1<1 | 1.31                         | 32            |
| 38             | KVW-IMPDLRG-4P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G1<1 | 1.30                         | 25            |
| 39             | KVW-IMPDLRG-4P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G1<1 | 1.29                         | 21            |
| 40             | KVW-IMPDLRG-4P-3,272(2)-19AR90SE-3,CL-G1<1                | 1.67                         | 19            |
| 41             | KVW-IMPDLRG-4P-3,180(2)-19AR90SE-3,I89(4)-G1<1            | 1.47                         | 32            |
| 42             | KVW-IMPDLRG-4P-3,272(2)-19AR90SE-3,I89(4)-G1<1            | 1.44                         | 24            |
| 43             | KVW-IMPDLRG-4P-3,366(2)-19AR90SE-3,I89(4)-G1<1            | 1.42                         | 19            |
| 44             | KVW-IMPDLRG-4P-3,180(2)-3,CL-3,CL-13AR90SE-G1<1           | 1.47                         | 30            |
| 45             | KVW-IMPDLRG-4P-3,272(2)-3,CL-3,CL-13AR90SE-G1<1           | 1.45                         | 22            |
| 46             | KVW-IMPDLRG-4P-3,366(2)-3,CL-3,CL-13AR90SE-G1<1           | 1.32                         | 18            |
| 47             | KVW-IMPDLRG-4P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G1<1       | 1.32                         | 20            |
| 48             | KVW-IMPDLRG-4P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G1<1       | 1.31                         | 33            |
| 49             | KVW-IMPDLRG-4P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G1<1       | 1.18                         | 28            |
| 50             | KVW-IMPDLRG-4P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G1<1   | 1.17                         | 23            |
| 51             | KVW-IMPDLRG-4P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G1<1   | 1.16                         | 35            |
| 52             | KVW-IMPDLRG-4P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G1<1   | 1.05                         | 31            |
| 53             | KVW-IMPDLRG-4P-3,272(2)-19AR90SE-3,CL-R-G2≥1              | 1.88                         | 14            |
| 54             | KVW-IMPDLRG-4P-3,180(2)-19AR90SE-3,I89(4)-R-G2≥1          | 1.68                         | 27            |
| 55             | KVW-IMPDLRG-4P-3,272(2)-19AR90SE-3,I89(4)-R-G2≥1          | 1.65                         | 19            |
| 56             | KVW-IMPDLRG-4P-3,366(2)-19AR90SE-3,I89(4)-R-G2≥1          | 1.63                         | 14            |
| 57             | KVW-IMPDLRG-4P-3,180(2)-3,CL-3,CL-13AR90SE-R-G2≥1         | 1.60                         | 27            |
| 58             | KVW-IMPDLRG-4P-3,272(2)-3,CL-3,CL-13AR90SE-R-G2≥1         | 1.58                         | 20            |
| 59             | KVW-IMPDLRG-4P-3,366(2)-3,CL-3,CL-13AR90SE-R-G2≥1         | 1.56                         | 15            |
| 60             | KVW-IMPDLRG-4P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G2≥1     | 1.47                         | 30            |
| 61             | KVW-IMPDLRG-4P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G2≥1     | 1.45                         | 22            |
| 62             | KVW-IMPDLRG-4P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G2≥1     | 1.44                         | 17            |
| 63             | KVW-IMPDLRG-4P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G2≥1 | 1.31                         | 32            |
| 64             | KVW-IMPDLRG-4P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G2≥1 | 1.30                         | 25            |
| 65             | KVW-IMPDLRG-4P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G2≥1 | 1.29                         | 21            |
| 66             | KVW-IMPDLRG-4P-3,272(2)-19AR90SE-3,CL-G2≥1                | 1.67                         | 19            |
| 67             | KVW-IMPDLRG-4P-3,180(2)-19AR90SE-3,I89(4)-G2≥1            | 1.47                         | 32            |
| 68             | KVW-IMPDLRG-4P-3,272(2)-19AR90SE-3,I89(4)-G2≥1            | 1.44                         | 24            |
| 69             | KVW-IMPDLRG-4P-3,366(2)-19AR90SE-3,I89(4)-G2≥1            | 1.42                         | 19            |
| 70             | KVW-IMPDLRG-4P-3,180(2)-3,CL-3,CL-13AR90SE-G2≥1           | 1.47                         | 30            |





| Glass Option # | Model Code                                                | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|-----------------------------------------------------------|------------------------------|---------------|
| 71             | KVW-IMPDLRG-4P-3,272(2)-3,CL-3,CL-13AR90SE-G2≥1           | 1.51                         | 21            |
| 72             | KVW-IMPDLRG-4P-3,366(2)-3,CL-3,CL-13AR90SE-G2≥1           | 1.40                         | 16            |
| 73             | KVW-IMPDLRG-4P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G2≥1       | 1.38                         | 19            |
| 74             | KVW-IMPDLRG-4P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G2≥1       | 1.37                         | 32            |
| 75             | KVW-IMPDLRG-4P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G2≥1       | 1.24                         | 27            |
| 76             | KVW-IMPDLRG-4P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G2≥1   | 1.23                         | 22            |
| 77             | KVW-IMPDLRG-4P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G2≥1   | 1.22                         | 34            |
| 78             | KVW-IMPDLRG-4P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G2≥1   | 1.05                         | 31            |
| 79             | KVW-IMPDLRG-4P-3,272(2)-19AR90SE-3,CL-R-G3<1              | 1.88                         | 14            |
| 80             | KVW-IMPDLRG-4P-3,180(2)-19AR90SE-3,I89(4)-R-G3<1          | 1.68                         | 27            |
| 81             | KVW-IMPDLRG-4P-3,272(2)-19AR90SE-3,I89(4)-R-G3<1          | 1.65                         | 19            |
| 82             | KVW-IMPDLRG-4P-3,366(2)-19AR90SE-3,I89(4)-R-G3<1          | 1.63                         | 14            |
| 83             | KVW-IMPDLRG-4P-3,180(2)-3,CL-3,CL-13AR90SE-R-G3<1         | 1.63                         | 18            |
| 84             | KVW-IMPDLRG-4P-3,272(2)-3,CL-3,CL-13AR90SE-R-G3<1         | 1.62                         | 12            |
| 85             | KVW-IMPDLRG-4P-3,366(2)-3,CL-3,CL-13AR90SE-R-G3<1         | 1.60                         | 24            |
| 86             | KVW-IMPDLRG-4P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G3<1     | 1.49                         | 20            |
| 87             | KVW-IMPDLRG-4P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G3<1     | 1.48                         | 16            |
| 88             | KVW-IMPDLRG-4P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G3<1     | 1.47                         | 27            |
| 89             | KVW-IMPDLRG-4P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G3<1 | 1.33                         | 23            |
| 90             | KVW-IMPDLRG-4P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G3<1 | 1.32                         | 19            |
| 91             | KVW-IMPDLRG-4P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G3<1 | 1.31                         | 29            |
| 92             | KVW-IMPDLRG-4P-3,272(2)-19AR90SE-3,CL-G3<1                | 1.88                         | 14            |
| 93             | KVW-IMPDLRG-4P-3,180(2)-19AR90SE-3,I89(4)-G3<1            | 1.68                         | 27            |
| 94             | KVW-IMPDLRG-4P-3,272(2)-19AR90SE-3,I89(4)-G3<1            | 1.65                         | 19            |
| 95             | KVW-IMPDLRG-4P-3,366(2)-19AR90SE-3,I89(4)-G3<1            | 1.63                         | 14            |
| 96             | KVW-IMPDLRG-4P-3,180(2)-3,CL-3,CL-13AR90SE-G3<1           | 1.50                         | 17            |
| 97             | KVW-IMPDLRG-4P-3,272(2)-3,CL-3,CL-13AR90SE-G3<1           | 1.49                         | 15            |
| 98             | KVW-IMPDLRG-4P-3,366(2)-3,CL-3,CL-13AR90SE-G3<1           | 1.47                         | 27            |
| 99             | KVW-IMPDLRG-4P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G3<1       | 1.36                         | 23            |
| 100            | KVW-IMPDLRG-4P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G3<1       | 1.34                         | 19            |
| 101            | KVW-IMPDLRG-4P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G3<1       | 1.33                         | 30            |
| 102            | KVW-IMPDLRG-4P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G3<1   | 1.19                         | 26            |
| 103            | KVW-IMPDLRG-4P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G3<1   | 1.19                         | 22            |
| 104            | KVW-IMPDLRG-4P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G3<1   | 1.18                         | 32            |
| 105            | KVW-IMPDLRG-4P-3,272(2)-19AR90SE-3,CL-R-G4≥1              | 1.88                         | 14            |
| 106            | KVW-IMPDLRG-4P-3,180(2)-19AR90SE-3,I89(4)-R-G4≥1          | 1.68                         | 27            |
| 107            | KVW-IMPDLRG-4P-3,272(2)-19AR90SE-3,I89(4)-R-G4≥1          | 1.65                         | 19            |
| 108            | KVW-IMPDLRG-4P-3,366(2)-19AR90SE-3,I89(4)-R-G4≥1          | 1.63                         | 14            |
| 109            | KVW-IMPDLRG-4P-3,180(2)-3,CL-3,CL-13AR90SE-R-G4≥1         | 1.65                         | 16            |



| Glass Option # | Model Code                                                | U-Value (W/m²K) | Energy Rating |
|----------------|-----------------------------------------------------------|-----------------|---------------|
| 110            | KVW-IMPDLRG-4P-3,272(2)-3,CL-3,CL-13AR90SE-R-G4≥1         | 1.63            | 11            |
| 111            | KVW-IMPDLRG-4P-3,366(2)-3,CL-3,CL-13AR90SE-R-G4≥1         | 1.62            | 22            |
| 112            | KVW-IMPDLRG-4P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G4≥1     | 1.50            | 18            |
| 113            | KVW-IMPDLRG-4P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G4≥1     | 1.49            | 15            |
| 114            | KVW-IMPDLRG-4P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G4≥1     | 1.48            | 24            |
| 115            | KVW-IMPDLRG-4P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G4≥1 | 1.33            | 22            |
| 116            | KVW-IMPDLRG-4P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G4≥1 | 1.32            | 18            |
| 117            | KVW-IMPDLRG-4P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G4≥1 | 1.32            | 26            |
| 118            | KVW-IMPDLRG-4P-3,272(2)-19AR90SE-3,CL-G4≥1                | 1.67            | 19            |
| 119            | KVW-IMPDLRG-4P-3,180(2)-19AR90SE-3,I89(4)-G4≥1            | 1.47            | 32            |
| 120            | KVW-IMPDLRG-4P-3,272(2)-19AR90SE-3,I89(4)-G4≥1            | 1.44            | 24            |
| 121            | KVW-IMPDLRG-4P-3,366(2)-19AR90SE-3,I89(4)-G4≥1            | 1.42            | 19            |
| 122            | KVW-IMPDLRG-4P-3,180(2)-3,CL-3,CL-13AR90SE-G4≥1           | 1.52            | 19            |
| 123            | KVW-IMPDLRG-4P-3,272(2)-3,CL-3,CL-13AR90SE-G4≥1           | 1.50            | 14            |
| 124            | KVW-IMPDLRG-4P-3,366(2)-3,CL-3,CL-13AR90SE-G4≥1           | 1.49            | 24            |
| 125            | KVW-IMPDLRG-4P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G4≥1       | 1.37            | 21            |
| 126            | KVW-IMPDLRG-4P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G4≥1       | 1.35            | 18            |
| 127            | KVW-IMPDLRG-4P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G4≥1       | 1.34            | 27            |
| 128            | KVW-IMPDLRG-4P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G4≥1   | 1.20            | 24            |
| 129            | KVW-IMPDLRG-4P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G4≥1   | 1.19            | 21            |
| 130            | KVW-IMPDLRG-4P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G4≥1   | 1.19            | 29            |
| 131            | KVW-IMPDLRG-4P-3,272(2)-19AR90SE-3,CL-R-G5<1              | 1.88            | 14            |
| 132            | KVW-IMPDLRG-4P-3,180(2)-19AR90SE-3,I89(4)-R-G5<1          | 1.68            | 27            |
| 133            | KVW-IMPDLRG-4P-3,272(2)-19AR90SE-3,I89(4)-R-G5<1          | 1.65            | 19            |
| 134            | KVW-IMPDLRG-4P-3,366(2)-19AR90SE-3,I89(4)-R-G5<1          | 1.63            | 14            |
| 135            | KVW-IMPDLRG-4P-3,180(2)-3,CL-3,CL-13AR90SE-R-G5<1         | 1.60            | 27            |
| 136            | KVW-IMPDLRG-4P-3,272(2)-3,CL-3,CL-13AR90SE-R-G5<1         | 1.58            | 20            |
| 137            | KVW-IMPDLRG-4P-3,366(2)-3,CL-3,CL-13AR90SE-R-G5<1         | 1.56            | 15            |
| 138            | KVW-IMPDLRG-4P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G5<1     | 1.47            | 30            |
| 139            | KVW-IMPDLRG-4P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G5<1     | 1.45            | 22            |
| 140            | KVW-IMPDLRG-4P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G5<1     | 1.44            | 17            |
| 141            | KVW-IMPDLRG-4P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G5<1 | 1.31            | 32            |
| 142            | KVW-IMPDLRG-4P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G5<1 | 1.30            | 25            |
| 143            | KVW-IMPDLRG-4P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G5<1 | 1.29            | 21            |
| 144            | KVW-IMPDLRG-4P-3,272(2)-19AR90SE-3,CL-G5<1                | 1.67            | 19            |
| 145            | KVW-IMPDLRG-4P-3,180(2)-19AR90SE-3,I89(4)-G5<1            | 1.47            | 32            |
| 146            | KVW-IMPDLRG-4P-3,272(2)-19AR90SE-3,I89(4)-G5<1            | 1.44            | 24            |
| 147            | KVW-IMPDLRG-4P-3,366(2)-19AR90SE-3,I89(4)-G5<1            | 1.42            | 19            |
| 148            | KVW-IMPDLRG-4P-3,180(2)-3,CL-3,CL-13AR90SE-G5<1           | 1.47            | 30            |



| Glass Option # | Model Code                                                | U-Value (W/m²K) | Energy Rating |
|----------------|-----------------------------------------------------------|-----------------|---------------|
| 149            | KVW-IMPDLRG-4P-3,272(2)-3,CL-3,CL-13AR90SE-G5<1           | 1.45            | 22            |
| 150            | KVW-IMPDLRG-4P-3,366(2)-3,CL-3,CL-13AR90SE-G5<1           | 1.32            | 18            |
| 151            | KVW-IMPDLRG-4P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G5<1       | 1.32            | 20            |
| 152            | KVW-IMPDLRG-4P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G5<1       | 1.31            | 33            |
| 153            | KVW-IMPDLRG-4P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G5<1       | 1.18            | 28            |
| 154            | KVW-IMPDLRG-4P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G5<1   | 1.17            | 23            |
| 155            | KVW-IMPDLRG-4P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G5<1   | 1.16            | 35            |
| 156            | KVW-IMPDLRG-4P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G5<1   | 1.05            | 31            |
| 157            | KVW-IMPDLRG-4P-3,272(2)-19AR90SE-3,CL-R-G6<1              | 1.88            | 14            |
| 158            | KVW-IMPDLRG-4P-3,180(2)-19AR90SE-3,I89(4)-R-G6<1          | 1.68            | 27            |
| 159            | KVW-IMPDLRG-4P-3,272(2)-19AR90SE-3,I89(4)-R-G6<1          | 1.65            | 19            |
| 160            | KVW-IMPDLRG-4P-3,366(2)-19AR90SE-3,I89(4)-R-G6<1          | 1.63            | 14            |
| 161            | KVW-IMPDLRG-4P-3,180(2)-3,CL-3,CL-13AR90SE-R-G6<1         | 1.60            | 27            |
| 162            | KVW-IMPDLRG-4P-3,272(2)-3,CL-3,CL-13AR90SE-R-G6<1         | 1.58            | 20            |
| 163            | KVW-IMPDLRG-4P-3,366(2)-3,CL-3,CL-13AR90SE-R-G6<1         | 1.56            | 15            |
| 164            | KVW-IMPDLRG-4P-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G6<1     | 1.47            | 30            |
| 165            | KVW-IMPDLRG-4P-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G6<1     | 1.45            | 22            |
| 166            | KVW-IMPDLRG-4P-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G6<1     | 1.44            | 17            |
| 167            | KVW-IMPDLRG-4P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G6<1 | 1.31            | 32            |
| 168            | KVW-IMPDLRG-4P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G6<1 | 1.30            | 25            |
| 169            | KVW-IMPDLRG-4P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G6<1 | 1.29            | 21            |
| 170            | KVW-IMPDLRG-4P-3,272(2)-19AR90SE-3,CL-G6<1                | 1.67            | 19            |
| 171            | KVW-IMPDLRG-4P-3,180(2)-19AR90SE-3,I89(4)-G6<1            | 1.47            | 32            |
| 172            | KVW-IMPDLRG-4P-3,272(2)-19AR90SE-3,I89(4)-G6<1            | 1.44            | 24            |
| 173            | KVW-IMPDLRG-4P-3,366(2)-19AR90SE-3,I89(4)-G6<1            | 1.42            | 19            |
| 174            | KVW-IMPDLRG-4P-3,180(2)-3,CL-3,CL-13AR90SE-G6<1           | 1.47            | 30            |
| 175            | KVW-IMPDLRG-4P-3,272(2)-3,CL-3,CL-13AR90SE-G6<1           | 1.45            | 22            |
| 176            | KVW-IMPDLRG-4P-3,366(2)-3,CL-3,CL-13AR90SE-G6<1           | 1.32            | 18            |
| 177            | KVW-IMPDLRG-4P-3,180(2)-3,CL-3,I89(6)-13AR90SE-G6<1       | 1.32            | 20            |
| 178            | KVW-IMPDLRG-4P-3,272(2)-3,CL-3,I89(6)-13AR90SE-G6<1       | 1.31            | 33            |
| 179            | KVW-IMPDLRG-4P-3,366(2)-3,CL-3,I89(6)-13AR90SE-G6<1       | 1.18            | 28            |
| 180            | KVW-IMPDLRG-4P-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G6<1   | 1.17            | 23            |
| 181            | KVW-IMPDLRG-4P-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G6<1   | 1.16            | 35            |
| 182            | KVW-IMPDLRG-4P-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G6<1   | 1.05            | 31            |

### Imperial Series Small Sash Sidelite

| Primary Designator                                                                  | DP Positive         | DP Negative           | Water Penetration Pressure | Air Leakage (Canada) |
|-------------------------------------------------------------------------------------|---------------------|-----------------------|----------------------------|----------------------|
| Class R – PG70:<br>Size tested 951 x 2019 mm (~37 x 80 in) –<br>Sidelite (Type SLT) | 3360 Pa<br>(70 psf) | -3360 Pa<br>(-70 psf) | 620 Pa<br>(12.75 psf)      | Fixed Level          |

| Glass Option # | Model Code                                         | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|----------------------------------------------------|------------------------------|---------------|
| 1              | KVW-IMPSSLML-3,272(2)-19AR90SE-3,CL-R              | 1.94                         | 11            |
| 2              | KVW-IMPSSLML-3,180(2)-19AR90SE-3,I89(4)-R          | 1.84                         | 19            |
| 3              | KVW-IMPSSLML-3,272(2)-19AR90SE-3,I89(4)-R          | 1.77                         | 14            |
| 4              | KVW-IMPSSLML-3,366(2)-19AR90SE-3,I89(4)-R          | 1.76                         | 10            |
| 5              | KVW-IMPSSLML-3,180(2)-3,CL-3,CL-13AR90SE-R         | 1.72                         | 21            |
| 6              | KVW-IMPSSLML-3,272(2)-3,CL-3,CL-13AR90SE-R         | 1.71                         | 14            |
| 7              | KVW-IMPSSLML-3,366(2)-3,CL-3,CL-13AR90SE-R         | 1.69                         | 11            |
| 8              | KVW-IMPSSLML-3,180(2)-3,CL-3,I89(6)-13AR90SE-R     | 1.61                         | 22            |
| 9              | KVW-IMPSSLML-3,272(2)-3,CL-3,I89(6)-13AR90SE-R     | 1.60                         | 16            |
| 10             | KVW-IMPSSLML-3,366(2)-3,CL-3,I89(6)-13AR90SE-R     | 1.59                         | 13            |
| 11             | KVW-IMPSSLML-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R | 1.48                         | 24            |
| 12             | KVW-IMPSSLML-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R | 1.48                         | 19            |
| 13             | KVW-IMPSSLML-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R | 1.47                         | 15            |
| 14             | KVW-IMPSSLML-3,272(2)-19AR90SE-3,CL                | 1.60                         | 17            |
| 15             | KVW-IMPSSLML-3,180(2)-19AR90SE-3,I89(4)            | 1.51                         | 26            |
| 16             | KVW-IMPSSLML-3,272(2)-19AR90SE-3,I89(4)            | 1.43                         | 21            |
| 17             | KVW-IMPSSLML-3,366(2)-19AR90SE-3,I89(4)            | 1.42                         | 17            |
| 18             | KVW-IMPSSLML-3,180(2)-3,CL-3,CL-13AR90SE           | 1.39                         | 28            |
| 19             | KVW-IMPSSLML-3,272(2)-3,CL-3,CL-13AR90SE           | 1.37                         | 22            |
| 20             | KVW-IMPSSLML-3,366(2)-3,CL-3,CL-13AR90SE           | 1.36                         | 18            |
| 21             | KVW-IMPSSLML-3,180(2)-3,CL-3,I89(6)-13AR90SE       | 1.28                         | 30            |
| 22             | KVW-IMPSSLML-3,272(2)-3,CL-3,I89(6)-13AR90SE       | 1.27                         | 24            |
| 23             | KVW-IMPSSLML-3,366(2)-3,CL-3,I89(6)-13AR90SE       | 1.26                         | 20            |
| 24             | KVW-IMPSSLML-3,180(2)-3,180(4)-3,I89(6)-13AR90SE   | 1.15                         | 31            |
| 25             | KVW-IMPSSLML-3,272(2)-3,180(4)-3,I89(6)-13AR90SE   | 1.15                         | 26            |
| 26             | KVW-IMPSSLML-3,366(2)-3,180(4)-3,I89(6)-13AR90SE   | 1.14                         | 22            |
| 27             | KVW-IMPSSLML-3,272(2)-19AR90SE-3,CL-R-G1<1         | 1.94                         | 9             |
| 28             | KVW-IMPSSLML-3,180(2)-19AR90SE-3,I89(4)-R-G1<1     | 1.84                         | 17            |
| 29             | KVW-IMPSSLML-3,272(2)-19AR90SE-3,I89(4)-R-G1<1     | 1.77                         | 13            |
| 30             | KVW-IMPSSLML-3,366(2)-19AR90SE-3,I89(4)-R-G1<1     | 1.76                         | 9             |
| 31             | KVW-IMPSSLML-3,180(2)-3,CL-3,CL-13AR90SE-R-G1<1    | 1.72                         | 19            |



| Glass Option # | Model Code                                              | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|---------------------------------------------------------|------------------------------|---------------|
| 32             | KVW-IMPSSLML-3,272(2)-3,CL-3,CL-13AR90SE-R-G1<1         | 1.71                         | 13            |
| 33             | KVW-IMPSSLML-3,366(2)-3,CL-3,CL-13AR90SE-R-G1<1         | 1.69                         | 10            |
| 34             | KVW-IMPSSLML-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G1<1     | 1.61                         | 21            |
| 35             | KVW-IMPSSLML-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G1<1     | 1.60                         | 15            |
| 36             | KVW-IMPSSLML-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G1<1     | 1.59                         | 12            |
| 37             | KVW-IMPSSLML-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G1<1 | 1.48                         | 22            |
| 38             | KVW-IMPSSLML-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G1<1 | 1.48                         | 18            |
| 39             | KVW-IMPSSLML-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G1<1 | 1.47                         | 15            |
| 40             | KVW-IMPSSLML-3,272(2)-19AR90SE-3,CL-G1<1                | 1.60                         | 16            |
| 41             | KVW-IMPSSLML-3,180(2)-19AR90SE-3,I89(4)-G1<1            | 1.51                         | 24            |
| 42             | KVW-IMPSSLML-3,272(2)-19AR90SE-3,I89(4)-G1<1            | 1.43                         | 20            |
| 43             | KVW-IMPSSLML-3,366(2)-19AR90SE-3,I89(4)-G1<1            | 1.42                         | 16            |
| 44             | KVW-IMPSSLML-3,180(2)-3,CL-3,CL-13AR90SE-G1<1           | 1.39                         | 26            |
| 45             | KVW-IMPSSLML-3,272(2)-3,CL-3,CL-13AR90SE-G1<1           | 1.37                         | 20            |
| 46             | KVW-IMPSSLML-3,366(2)-3,CL-3,CL-13AR90SE-G1<1           | 1.36                         | 17            |
| 47             | KVW-IMPSSLML-3,180(2)-3,CL-3,I89(6)-13AR90SE-G1<1       | 1.28                         | 27            |
| 48             | KVW-IMPSSLML-3,272(2)-3,CL-3,I89(6)-13AR90SE-G1<1       | 1.27                         | 22            |
| 49             | KVW-IMPSSLML-3,366(2)-3,CL-3,I89(6)-13AR90SE-G1<1       | 1.26                         | 19            |
| 50             | KVW-IMPSSLML-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G1<1   | 1.15                         | 30            |
| 51             | KVW-IMPSSLML-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G1<1   | 1.15                         | 24            |
| 52             | KVW-IMPSSLML-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G1<1   | 1.14                         | 22            |
| 53             | KVW-IMPSSLML-3,272(2)-19AR90SE-3,CL-R-G2≥1              | 1.94                         | 8             |
| 54             | KVW-IMPSSLML-3,180(2)-19AR90SE-3,I89(4)-R-G2≥1          | 1.84                         | 15            |
| 55             | KVW-IMPSSLML-3,272(2)-19AR90SE-3,I89(4)-R-G2≥1          | 1.77                         | 11            |
| 56             | KVW-IMPSSLML-3,366(2)-19AR90SE-3,I89(4)-R-G2≥1          | 1.76                         | 8             |
| 57             | KVW-IMPSSLML-3,180(2)-3,CL-3,CL-13AR90SE-R-G2≥1         | 1.72                         | 17            |
| 58             | KVW-IMPSSLML-3,272(2)-3,CL-3,CL-13AR90SE-R-G2≥1         | 1.71                         | 12            |
| 59             | KVW-IMPSSLML-3,366(2)-3,CL-3,CL-13AR90SE-R-G2≥1         | 1.69                         | 10            |
| 60             | KVW-IMPSSLML-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G2≥1     | 1.61                         | 19            |
| 61             | KVW-IMPSSLML-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G2≥1     | 1.60                         | 15            |
| 62             | KVW-IMPSSLML-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G2≥1     | 1.59                         | 11            |
| 63             | KVW-IMPSSLML-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G2≥1 | 1.48                         | 21            |
| 64             | KVW-IMPSSLML-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G2≥1 | 1.48                         | 17            |
| 65             | KVW-IMPSSLML-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G2≥1 | 1.47                         | 14            |
| 66             | KVW-IMPSSLML-3,272(2)-19AR90SE-3,CL-G2≥1                | 1.60                         | 15            |
| 67             | KVW-IMPSSLML-3,180(2)-19AR90SE-3,I89(4)-G2≥1            | 1.51                         | 22            |
| 68             | KVW-IMPSSLML-3,272(2)-19AR90SE-3,I89(4)-G2≥1            | 1.43                         | 19            |
| 69             | KVW-IMPSSLML-3,366(2)-19AR90SE-3,I89(4)-G2≥1            | 1.42                         | 16            |
| 70             | KVW-IMPSSLML-3,180(2)-3,CL-3,CL-13AR90SE-G2≥1           | 1.39                         | 24            |





| Glass Option # | Model Code                                              | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|---------------------------------------------------------|------------------------------|---------------|
| 71             | KVW-IMPSSLML-3,272(2)-3,CL-3,CL-13AR90SE-G2≥1           | 1.37                         | 20            |
| 72             | KVW-IMPSSLML-3,366(2)-3,CL-3,CL-13AR90SE-G2≥1           | 1.36                         | 16            |
| 73             | KVW-IMPSSLML-3,180(2)-3,CL-3,I89(6)-13AR90SE-G2≥1       | 1.28                         | 26            |
| 74             | KVW-IMPSSLML-3,272(2)-3,CL-3,I89(6)-13AR90SE-G2≥1       | 1.27                         | 21            |
| 75             | KVW-IMPSSLML-3,366(2)-3,CL-3,I89(6)-13AR90SE-G2≥1       | 1.26                         | 19            |
| 76             | KVW-IMPSSLML-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G2≥1   | 1.15                         | 28            |
| 77             | KVW-IMPSSLML-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G2≥1   | 1.15                         | 24            |
| 78             | KVW-IMPSSLML-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G2≥1   | 1.14                         | 21            |
| 79             | KVW-IMPSSLML-3,272(2)-19AR90SE-3,CL-R-G3<1              | 1.94                         | 9             |
| 80             | KVW-IMPSSLML-3,180(2)-19AR90SE-3,I89(4)-R-G3<1          | 1.84                         | 17            |
| 81             | KVW-IMPSSLML-3,272(2)-19AR90SE-3,I89(4)-R-G3<1          | 1.77                         | 13            |
| 82             | KVW-IMPSSLML-3,366(2)-19AR90SE-3,I89(4)-R-G3<1          | 1.76                         | 9             |
| 83             | KVW-IMPSSLML-3,180(2)-3,CL-3,CL-13AR90SE-R-G3<1         | 1.72                         | 19            |
| 84             | KVW-IMPSSLML-3,272(2)-3,CL-3,CL-13AR90SE-R-G3<1         | 1.71                         | 13            |
| 85             | KVW-IMPSSLML-3,366(2)-3,CL-3,CL-13AR90SE-R-G3<1         | 1.69                         | 10            |
| 86             | KVW-IMPSSLML-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G3<1     | 1.61                         | 21            |
| 87             | KVW-IMPSSLML-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G3<1     | 1.60                         | 15            |
| 88             | KVW-IMPSSLML-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G3<1     | 1.59                         | 12            |
| 89             | KVW-IMPSSLML-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G3<1 | 1.48                         | 22            |
| 90             | KVW-IMPSSLML-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G3<1 | 1.48                         | 18            |
| 91             | KVW-IMPSSLML-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G3<1 | 1.47                         | 15            |
| 92             | KVW-IMPSSLML-3,272(2)-19AR90SE-3,CL-G3<1                | 1.60                         | 16            |
| 93             | KVW-IMPSSLML-3,180(2)-19AR90SE-3,I89(4)-G3<1            | 1.51                         | 24            |
| 94             | KVW-IMPSSLML-3,272(2)-19AR90SE-3,I89(4)-G3<1            | 1.43                         | 20            |
| 95             | KVW-IMPSSLML-3,366(2)-19AR90SE-3,I89(4)-G3<1            | 1.42                         | 16            |
| 96             | KVW-IMPSSLML-3,180(2)-3,CL-3,CL-13AR90SE-G3<1           | 1.39                         | 26            |
| 97             | KVW-IMPSSLML-3,272(2)-3,CL-3,CL-13AR90SE-G3<1           | 1.37                         | 20            |
| 98             | KVW-IMPSSLML-3,366(2)-3,CL-3,CL-13AR90SE-G3<1           | 1.36                         | 17            |
| 99             | KVW-IMPSSLML-3,180(2)-3,CL-3,I89(6)-13AR90SE-G3<1       | 1.28                         | 27            |
| 100            | KVW-IMPSSLML-3,272(2)-3,CL-3,I89(6)-13AR90SE-G3<1       | 1.27                         | 22            |
| 101            | KVW-IMPSSLML-3,366(2)-3,CL-3,I89(6)-13AR90SE-G3<1       | 1.26                         | 19            |
| 102            | KVW-IMPSSLML-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G3<1   | 1.15                         | 30            |
| 103            | KVW-IMPSSLML-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G3<1   | 1.15                         | 24            |
| 104            | KVW-IMPSSLML-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G3<1   | 1.14                         | 22            |
| 105            | KVW-IMPSSLML-3,272(2)-19AR90SE-3,CL-R-G4≥1              | 1.94                         | 8             |
| 106            | KVW-IMPSSLML-3,180(2)-19AR90SE-3,I89(4)-R-G4≥1          | 1.84                         | 15            |
| 107            | KVW-IMPSSLML-3,272(2)-19AR90SE-3,I89(4)-R-G4≥1          | 1.77                         | 11            |
| 108            | KVW-IMPSSLML-3,366(2)-19AR90SE-3,I89(4)-R-G4≥1          | 1.76                         | 8             |
| 109            | KVW-IMPSSLML-3,180(2)-3,CL-3,CL-13AR90SE-R-G4≥1         | 1.72                         | 17            |



| Glass Option # | Model Code                                              | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|---------------------------------------------------------|------------------------------|---------------|
| 110            | KVW-IMPSSLML-3,272(2)-3,CL-3,CL-13AR90SE-R-G4≥1         | 1.71                         | 12            |
| 111            | KVW-IMPSSLML-3,366(2)-3,CL-3,CL-13AR90SE-R-G4≥1         | 1.69                         | 10            |
| 112            | KVW-IMPSSLML-3,180(2)-3,CL-3,189(6)-13AR90SE-R-G4≥1     | 1.61                         | 19            |
| 113            | KVW-IMPSSLML-3,272(2)-3,CL-3,189(6)-13AR90SE-R-G4≥1     | 1.60                         | 15            |
| 114            | KVW-IMPSSLML-3,366(2)-3,CL-3,189(6)-13AR90SE-R-G4≥1     | 1.59                         | 11            |
| 115            | KVW-IMPSSLML-3,180(2)-3,180(4)-3,189(6)-13AR90SE-R-G4≥1 | 1.48                         | 21            |
| 116            | KVW-IMPSSLML-3,272(2)-3,180(4)-3,189(6)-13AR90SE-R-G4≥1 | 1.48                         | 17            |
| 117            | KVW-IMPSSLML-3,366(2)-3,180(4)-3,189(6)-13AR90SE-R-G4≥1 | 1.47                         | 14            |
| 118            | KVW-IMPSSLML-3,272(2)-19AR90SE-3,CL-G4≥1                | 1.60                         | 15            |
| 119            | KVW-IMPSSLML-3,180(2)-19AR90SE-3,189(4)-G4≥1            | 1.51                         | 22            |
| 120            | KVW-IMPSSLML-3,272(2)-19AR90SE-3,189(4)-G4≥1            | 1.43                         | 19            |
| 121            | KVW-IMPSSLML-3,366(2)-19AR90SE-3,189(4)-G4≥1            | 1.42                         | 16            |
| 122            | KVW-IMPSSLML-3,180(2)-3,CL-3,CL-13AR90SE-G4≥1           | 1.39                         | 24            |
| 123            | KVW-IMPSSLML-3,272(2)-3,CL-3,CL-13AR90SE-G4≥1           | 1.37                         | 20            |
| 124            | KVW-IMPSSLML-3,366(2)-3,CL-3,CL-13AR90SE-G4≥1           | 1.36                         | 16            |
| 125            | KVW-IMPSSLML-3,180(2)-3,CL-3,189(6)-13AR90SE-G4≥1       | 1.28                         | 26            |
| 126            | KVW-IMPSSLML-3,272(2)-3,CL-3,189(6)-13AR90SE-G4≥1       | 1.27                         | 21            |
| 127            | KVW-IMPSSLML-3,366(2)-3,CL-3,189(6)-13AR90SE-G4≥1       | 1.26                         | 19            |
| 128            | KVW-IMPSSLML-3,180(2)-3,180(4)-3,189(6)-13AR90SE-G4≥1   | 1.15                         | 28            |
| 129            | KVW-IMPSSLML-3,272(2)-3,180(4)-3,189(6)-13AR90SE-G4≥1   | 1.15                         | 24            |
| 130            | KVW-IMPSSLML-3,366(2)-3,180(4)-3,189(6)-13AR90SE-G4≥1   | 1.14                         | 21            |
| 131            | KVW-IMPSSLML-3,272(2)-19AR90SE-3,CL-R-G5<1              | 1.94                         | 9             |
| 132            | KVW-IMPSSLML-3,180(2)-19AR90SE-3,189(4)-R-G5<1          | 1.84                         | 17            |
| 133            | KVW-IMPSSLML-3,272(2)-19AR90SE-3,189(4)-R-G5<1          | 1.77                         | 13            |
| 134            | KVW-IMPSSLML-3,366(2)-19AR90SE-3,189(4)-R-G5<1          | 1.76                         | 9             |
| 135            | KVW-IMPSSLML-3,180(2)-3,CL-3,CL-13AR90SE-R-G5<1         | 1.72                         | 19            |
| 136            | KVW-IMPSSLML-3,272(2)-3,CL-3,CL-13AR90SE-R-G5<1         | 1.71                         | 13            |
| 137            | KVW-IMPSSLML-3,366(2)-3,CL-3,CL-13AR90SE-R-G5<1         | 1.69                         | 10            |
| 138            | KVW-IMPSSLML-3,180(2)-3,CL-3,189(6)-13AR90SE-R-G5<1     | 1.61                         | 21            |
| 139            | KVW-IMPSSLML-3,272(2)-3,CL-3,189(6)-13AR90SE-R-G5<1     | 1.60                         | 15            |
| 140            | KVW-IMPSSLML-3,366(2)-3,CL-3,189(6)-13AR90SE-R-G5<1     | 1.59                         | 12            |
| 141            | KVW-IMPSSLML-3,180(2)-3,180(4)-3,189(6)-13AR90SE-R-G5<1 | 1.48                         | 22            |
| 142            | KVW-IMPSSLML-3,272(2)-3,180(4)-3,189(6)-13AR90SE-R-G5<1 | 1.48                         | 18            |
| 143            | KVW-IMPSSLML-3,366(2)-3,180(4)-3,189(6)-13AR90SE-R-G5<1 | 1.47                         | 15            |
| 144            | KVW-IMPSSLML-3,272(2)-19AR90SE-3,CL-G5<1                | 1.60                         | 16            |
| 145            | KVW-IMPSSLML-3,180(2)-19AR90SE-3,189(4)-G5<1            | 1.51                         | 24            |
| 146            | KVW-IMPSSLML-3,272(2)-19AR90SE-3,189(4)-G5<1            | 1.43                         | 20            |
| 147            | KVW-IMPSSLML-3,366(2)-19AR90SE-3,189(4)-G5<1            | 1.42                         | 16            |
| 148            | KVW-IMPSSLML-3,180(2)-3,CL-3,CL-13AR90SE-G5<1           | 1.39                         | 26            |



| Glass Option # | Model Code                                              | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|---------------------------------------------------------|------------------------------|---------------|
| 149            | KVW-IMPSSLML-3,272(2)-3,CL-3,CL-13AR90SE-G5<1           | 1.37                         | 20            |
| 150            | KVW-IMPSSLML-3,366(2)-3,CL-3,CL-13AR90SE-G5<1           | 1.36                         | 17            |
| 151            | KVW-IMPSSLML-3,180(2)-3,CL-3,I89(6)-13AR90SE-G5<1       | 1.28                         | 27            |
| 152            | KVW-IMPSSLML-3,272(2)-3,CL-3,I89(6)-13AR90SE-G5<1       | 1.27                         | 22            |
| 153            | KVW-IMPSSLML-3,366(2)-3,CL-3,I89(6)-13AR90SE-G5<1       | 1.26                         | 19            |
| 154            | KVW-IMPSSLML-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G5<1   | 1.15                         | 30            |
| 155            | KVW-IMPSSLML-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G5<1   | 1.15                         | 24            |
| 156            | KVW-IMPSSLML-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G5<1   | 1.14                         | 22            |
| 157            | KVW-IMPSSLML-3,272(2)-19AR90SE-3,CL-R-G6<1              | 1.94                         | 8             |
| 158            | KVW-IMPSSLML-3,180(2)-19AR90SE-3,I89(4)-R-G6<1          | 1.84                         | 15            |
| 159            | KVW-IMPSSLML-3,272(2)-19AR90SE-3,I89(4)-R-G6<1          | 1.77                         | 11            |
| 160            | KVW-IMPSSLML-3,366(2)-19AR90SE-3,I89(4)-R-G6<1          | 1.76                         | 8             |
| 161            | KVW-IMPSSLML-3,180(2)-3,CL-3,CL-13AR90SE-R-G6<1         | 1.72                         | 17            |
| 162            | KVW-IMPSSLML-3,272(2)-3,CL-3,CL-13AR90SE-R-G6<1         | 1.71                         | 12            |
| 163            | KVW-IMPSSLML-3,366(2)-3,CL-3,CL-13AR90SE-R-G6<1         | 1.69                         | 10            |
| 164            | KVW-IMPSSLML-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G6<1     | 1.61                         | 19            |
| 165            | KVW-IMPSSLML-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G6<1     | 1.60                         | 15            |
| 166            | KVW-IMPSSLML-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G6<1     | 1.59                         | 11            |
| 167            | KVW-IMPSSLML-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G6<1 | 1.48                         | 21            |
| 168            | KVW-IMPSSLML-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G6<1 | 1.48                         | 17            |
| 169            | KVW-IMPSSLML-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G6<1 | 1.47                         | 14            |
| 170            | KVW-IMPSSLML-3,272(2)-19AR90SE-3,CL-G6<1                | 1.60                         | 15            |
| 171            | KVW-IMPSSLML-3,180(2)-19AR90SE-3,I89(4)-G6<1            | 1.51                         | 22            |
| 172            | KVW-IMPSSLML-3,272(2)-19AR90SE-3,I89(4)-G6<1            | 1.43                         | 19            |
| 173            | KVW-IMPSSLML-3,366(2)-19AR90SE-3,I89(4)-G6<1            | 1.42                         | 16            |
| 174            | KVW-IMPSSLML-3,180(2)-3,CL-3,CL-13AR90SE-G6<1           | 1.39                         | 24            |
| 175            | KVW-IMPSSLML-3,272(2)-3,CL-3,CL-13AR90SE-G6<1           | 1.37                         | 20            |
| 176            | KVW-IMPSSLML-3,366(2)-3,CL-3,CL-13AR90SE-G6<1           | 1.36                         | 16            |
| 177            | KVW-IMPSSLML-3,180(2)-3,CL-3,I89(6)-13AR90SE-G6<1       | 1.28                         | 26            |
| 178            | KVW-IMPSSLML-3,272(2)-3,CL-3,I89(6)-13AR90SE-G6<1       | 1.27                         | 21            |
| 179            | KVW-IMPSSLML-3,366(2)-3,CL-3,I89(6)-13AR90SE-G6<1       | 1.26                         | 19            |
| 180            | KVW-IMPSSLML-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G6<1   | 1.15                         | 28            |
| 181            | KVW-IMPSSLML-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G6<1   | 1.15                         | 24            |
| 182            | KVW-IMPSSLML-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G6<1   | 1.14                         | 21            |

### Imperial Series Large Sash Sidelite

| Primary Designator                                                                  | DP Positive         | DP Negative           | Water Penetration Pressure | Air Leakage (Canada) |
|-------------------------------------------------------------------------------------|---------------------|-----------------------|----------------------------|----------------------|
| Class R – PG70:<br>Size tested 951 x 2019 mm (~37 x 80 in) –<br>Sidelite (Type SLT) | 3360 Pa<br>(70 psf) | -3360 Pa<br>(-70 psf) | 620 Pa<br>(12.75 psf)      | Fixed Level          |

| Glass Option # | Model Code                                         | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|----------------------------------------------------|------------------------------|---------------|
| 1              | KVW-IMPSSLRG-3,272(2)-19AR90SE-3,CL-R              | 2.13                         | 5             |
| 2              | KVW-IMPSSLRG-3,180(2)-19AR90SE-3,I89(4)-R          | 2.09                         | 11            |
| 3              | KVW-IMPSSLRG-3,272(2)-19AR90SE-3,I89(4)-R          | 1.98                         | 7             |
| 4              | KVW-IMPSSLRG-3,366(2)-19AR90SE-3,I89(4)-R          | 1.97                         | 4             |
| 5              | KVW-IMPSSLRG-3,180(2)-3,CL-3,CL-13AR90SE-R         | 1.93                         | 14            |
| 6              | KVW-IMPSSLRG-3,272(2)-3,CL-3,CL-13AR90SE-R         | 1.92                         | 8             |
| 7              | KVW-IMPSSLRG-3,366(2)-3,CL-3,CL-13AR90SE-R         | 1.91                         | 5             |
| 8              | KVW-IMPSSLRG-3,180(2)-3,CL-3,I89(6)-13AR90SE-R     | 1.84                         | 15            |
| 9              | KVW-IMPSSLRG-3,272(2)-3,CL-3,I89(6)-13AR90SE-R     | 1.83                         | 10            |
| 10             | KVW-IMPSSLRG-3,366(2)-3,CL-3,I89(6)-13AR90SE-R     | 1.82                         | 7             |
| 11             | KVW-IMPSSLRG-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R | 1.73                         | 16            |
| 12             | KVW-IMPSSLRG-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R | 1.72                         | 12            |
| 13             | KVW-IMPSSLRG-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R | 1.75                         | 8             |
| 14             | KVW-IMPSSLRG-3,272(2)-19AR90SE-3,CL                | 1.77                         | 12            |
| 15             | KVW-IMPSSLRG-3,180(2)-19AR90SE-3,I89(4)            | 1.70                         | 19            |
| 16             | KVW-IMPSSLRG-3,272(2)-19AR90SE-3,I89(4)            | 1.63                         | 15            |
| 17             | KVW-IMPSSLRG-3,366(2)-19AR90SE-3,I89(4)            | 1.61                         | 12            |
| 18             | KVW-IMPSSLRG-3,180(2)-3,CL-3,CL-13AR90SE           | 1.57                         | 21            |
| 19             | KVW-IMPSSLRG-3,272(2)-3,CL-3,CL-13AR90SE           | 1.56                         | 16            |
| 20             | KVW-IMPSSLRG-3,366(2)-3,CL-3,CL-13AR90SE           | 1.55                         | 13            |
| 21             | KVW-IMPSSLRG-3,180(2)-3,CL-3,I89(6)-13AR90SE       | 1.48                         | 23            |
| 22             | KVW-IMPSSLRG-3,272(2)-3,CL-3,I89(6)-13AR90SE       | 1.47                         | 18            |
| 23             | KVW-IMPSSLRG-3,366(2)-3,CL-3,I89(6)-13AR90SE       | 1.46                         | 15            |
| 24             | KVW-IMPSSLRG-3,180(2)-3,180(4)-3,I89(6)-13AR90SE   | 1.37                         | 24            |
| 25             | KVW-IMPSSLRG-3,272(2)-3,180(4)-3,I89(6)-13AR90SE   | 1.36                         | 20            |
| 26             | KVW-IMPSSLRG-3,366(2)-3,180(4)-3,I89(6)-13AR90SE   | 1.36                         | 17            |
| 27             | KVW-IMPSSLRG-3,272(2)-19AR90SE-3,CL-R-G1<1         | 2.13                         | 4             |
| 28             | KVW-IMPSSLRG-3,180(2)-19AR90SE-3,I89(4)-R-G1<1     | 2.09                         | 9             |
| 29             | KVW-IMPSSLRG-3,272(2)-19AR90SE-3,I89(4)-R-G1<1     | 1.98                         | 6             |
| 30             | KVW-IMPSSLRG-3,366(2)-19AR90SE-3,I89(4)-R-G1<1     | 1.97                         | 4             |
| 31             | KVW-IMPSSLRG-3,180(2)-3,CL-3,CL-13AR90SE-R-G1<1    | 1.93                         | 12            |



| Glass Option # | Model Code                                              | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|---------------------------------------------------------|------------------------------|---------------|
| 32             | KVW-IMPSSLRG-3,272(2)-3,CL-3,CL-13AR90SE-R-G1<1         | 1.92                         | 7             |
| 33             | KVW-IMPSSLRG-3,366(2)-3,CL-3,CL-13AR90SE-R-G1<1         | 1.91                         | 4             |
| 34             | KVW-IMPSSLRG-3,180(2)-3,CL-3,189(6)-13AR90SE-R-G1<1     | 1.84                         | 13            |
| 35             | KVW-IMPSSLRG-3,272(2)-3,CL-3,189(6)-13AR90SE-R-G1<1     | 1.83                         | 9             |
| 36             | KVW-IMPSSLRG-3,366(2)-3,CL-3,189(6)-13AR90SE-R-G1<1     | 1.82                         | 6             |
| 37             | KVW-IMPSSLRG-3,180(2)-3,180(4)-3,189(6)-13AR90SE-R-G1<1 | 1.73                         | 15            |
| 38             | KVW-IMPSSLRG-3,272(2)-3,180(4)-3,189(6)-13AR90SE-R-G1<1 | 1.72                         | 11            |
| 39             | KVW-IMPSSLRG-3,366(2)-3,180(4)-3,189(6)-13AR90SE-R-G1<1 | 1.75                         | 8             |
| 40             | KVW-IMPSSLRG-3,272(2)-19AR90SE-3,CL-G1<1                | 1.77                         | 11            |
| 41             | KVW-IMPSSLRG-3,180(2)-19AR90SE-3,189(4)-G1<1            | 1.70                         | 18            |
| 42             | KVW-IMPSSLRG-3,272(2)-19AR90SE-3,189(4)-G1<1            | 1.63                         | 14            |
| 43             | KVW-IMPSSLRG-3,366(2)-19AR90SE-3,189(4)-G1<1            | 1.61                         | 11            |
| 44             | KVW-IMPSSLRG-3,180(2)-3,CL-3,CL-13AR90SE-G1<1           | 1.57                         | 19            |
| 45             | KVW-IMPSSLRG-3,272(2)-3,CL-3,CL-13AR90SE-G1<1           | 1.56                         | 15            |
| 46             | KVW-IMPSSLRG-3,366(2)-3,CL-3,CL-13AR90SE-G1<1           | 1.55                         | 12            |
| 47             | KVW-IMPSSLRG-3,180(2)-3,CL-3,189(6)-13AR90SE-G1<1       | 1.48                         | 21            |
| 48             | KVW-IMPSSLRG-3,272(2)-3,CL-3,189(6)-13AR90SE-G1<1       | 1.47                         | 17            |
| 49             | KVW-IMPSSLRG-3,366(2)-3,CL-3,189(6)-13AR90SE-G1<1       | 1.46                         | 14            |
| 50             | KVW-IMPSSLRG-3,180(2)-3,180(4)-3,189(6)-13AR90SE-G1<1   | 1.41                         | 22            |
| 51             | KVW-IMPSSLRG-3,272(2)-3,180(4)-3,189(6)-13AR90SE-G1<1   | 1.36                         | 19            |
| 52             | KVW-IMPSSLRG-3,366(2)-3,180(4)-3,189(6)-13AR90SE-G1<1   | 1.36                         | 16            |
| 53             | KVW-IMPSSLRG-3,272(2)-19AR90SE-3,CL-R-G2≥1              | 2.13                         | 2             |
| 54             | KVW-IMPSSLRG-3,180(2)-19AR90SE-3,189(4)-R-G2≥1          | 2.09                         | 7             |
| 55             | KVW-IMPSSLRG-3,272(2)-19AR90SE-3,189(4)-R-G2≥1          | 1.98                         | 6             |
| 56             | KVW-IMPSSLRG-3,366(2)-19AR90SE-3,189(4)-R-G2≥1          | 1.97                         | 3             |
| 57             | KVW-IMPSSLRG-3,180(2)-3,CL-3,CL-13AR90SE-R-G2≥1         | 1.93                         | 10            |
| 58             | KVW-IMPSSLRG-3,272(2)-3,CL-3,CL-13AR90SE-R-G2≥1         | 1.92                         | 6             |
| 59             | KVW-IMPSSLRG-3,366(2)-3,CL-3,CL-13AR90SE-R-G2≥1         | 1.91                         | 4             |
| 60             | KVW-IMPSSLRG-3,180(2)-3,CL-3,189(6)-13AR90SE-R-G2≥1     | 1.84                         | 12            |
| 61             | KVW-IMPSSLRG-3,272(2)-3,CL-3,189(6)-13AR90SE-R-G2≥1     | 1.83                         | 8             |
| 62             | KVW-IMPSSLRG-3,366(2)-3,CL-3,189(6)-13AR90SE-R-G2≥1     | 1.82                         | 6             |
| 63             | KVW-IMPSSLRG-3,180(2)-3,180(4)-3,189(6)-13AR90SE-R-G2≥1 | 1.73                         | 13            |
| 64             | KVW-IMPSSLRG-3,272(2)-3,180(4)-3,189(6)-13AR90SE-R-G2≥1 | 1.72                         | 10            |
| 65             | KVW-IMPSSLRG-3,366(2)-3,180(4)-3,189(6)-13AR90SE-R-G2≥1 | 1.75                         | 7             |
| 66             | KVW-IMPSSLRG-3,272(2)-19AR90SE-3,CL-G2≥1                | 1.77                         | 10            |
| 67             | KVW-IMPSSLRG-3,180(2)-19AR90SE-3,189(4)-G2≥1            | 1.70                         | 16            |
| 68             | KVW-IMPSSLRG-3,272(2)-19AR90SE-3,189(4)-G2≥1            | 1.63                         | 13            |
| 69             | KVW-IMPSSLRG-3,366(2)-19AR90SE-3,189(4)-G2≥1            | 1.61                         | 11            |
| 70             | KVW-IMPSSLRG-3,180(2)-3,CL-3,CL-13AR90SE-G2≥1           | 1.57                         | 18            |





| Glass Option # | Model Code                                              | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|---------------------------------------------------------|------------------------------|---------------|
| 71             | KVW-IMPSSLRG-3,272(2)-3,CL-3,CL-13AR90SE-G2≥1           | 1.56                         | 14            |
| 72             | KVW-IMPSSLRG-3,366(2)-3,CL-3,CL-13AR90SE-G2≥1           | 1.55                         | 12            |
| 73             | KVW-IMPSSLRG-3,180(2)-3,CL-3,I89(6)-13AR90SE-G2≥1       | 1.48                         | 20            |
| 74             | KVW-IMPSSLRG-3,272(2)-3,CL-3,I89(6)-13AR90SE-G2≥1       | 1.47                         | 16            |
| 75             | KVW-IMPSSLRG-3,366(2)-3,CL-3,I89(6)-13AR90SE-G2≥1       | 1.46                         | 14            |
| 76             | KVW-IMPSSLRG-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G2≥1   | 1.41                         | 20            |
| 77             | KVW-IMPSSLRG-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G2≥1   | 1.36                         | 18            |
| 78             | KVW-IMPSSLRG-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G2≥1   | 1.36                         | 16            |
| 79             | KVW-IMPSSLRG-3,272(2)-19AR90SE-3,CL-R-G3<1              | 2.13                         | 4             |
| 80             | KVW-IMPSSLRG-3,180(2)-19AR90SE-3,I89(4)-R-G3<1          | 2.09                         | 9             |
| 81             | KVW-IMPSSLRG-3,272(2)-19AR90SE-3,I89(4)-R-G3<1          | 1.98                         | 6             |
| 82             | KVW-IMPSSLRG-3,366(2)-19AR90SE-3,I89(4)-R-G3<1          | 1.97                         | 4             |
| 83             | KVW-IMPSSLRG-3,180(2)-3,CL-3,CL-13AR90SE-R-G3<1         | 1.95                         | 12            |
| 84             | KVW-IMPSSLRG-3,272(2)-3,CL-3,CL-13AR90SE-R-G3<1         | 1.92                         | 7             |
| 85             | KVW-IMPSSLRG-3,366(2)-3,CL-3,CL-13AR90SE-R-G3<1         | 1.91                         | 4             |
| 86             | KVW-IMPSSLRG-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G3<1     | 1.84                         | 13            |
| 87             | KVW-IMPSSLRG-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G3<1     | 1.83                         | 9             |
| 88             | KVW-IMPSSLRG-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G3<1     | 1.82                         | 6             |
| 89             | KVW-IMPSSLRG-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G3<1 | 1.73                         | 15            |
| 90             | KVW-IMPSSLRG-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G3<1 | 1.72                         | 11            |
| 91             | KVW-IMPSSLRG-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G3<1 | 1.75                         | 8             |
| 92             | KVW-IMPSSLRG-3,272(2)-19AR90SE-3,CL-G3<1                | 1.77                         | 11            |
| 93             | KVW-IMPSSLRG-3,180(2)-19AR90SE-3,I89(4)-G3<1            | 1.70                         | 18            |
| 94             | KVW-IMPSSLRG-3,272(2)-19AR90SE-3,I89(4)-G3<1            | 1.63                         | 14            |
| 95             | KVW-IMPSSLRG-3,366(2)-19AR90SE-3,I89(4)-G3<1            | 1.61                         | 11            |
| 96             | KVW-IMPSSLRG-3,180(2)-3,CL-3,CL-13AR90SE-G3<1           | 1.57                         | 19            |
| 97             | KVW-IMPSSLRG-3,272(2)-3,CL-3,CL-13AR90SE-G3<1           | 1.56                         | 15            |
| 98             | KVW-IMPSSLRG-3,366(2)-3,CL-3,CL-13AR90SE-G3<1           | 1.55                         | 12            |
| 99             | KVW-IMPSSLRG-3,180(2)-3,CL-3,I89(6)-13AR90SE-G3<1       | 1.48                         | 21            |
| 100            | KVW-IMPSSLRG-3,272(2)-3,CL-3,I89(6)-13AR90SE-G3<1       | 1.47                         | 17            |
| 101            | KVW-IMPSSLRG-3,366(2)-3,CL-3,I89(6)-13AR90SE-G3<1       | 1.46                         | 14            |
| 102            | KVW-IMPSSLRG-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-G3<1   | 1.41                         | 22            |
| 103            | KVW-IMPSSLRG-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-G3<1   | 1.36                         | 19            |
| 104            | KVW-IMPSSLRG-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-G3<1   | 1.36                         | 16            |
| 105            | KVW-IMPSSLRG-3,272(2)-19AR90SE-3,CL-R-G4≥1              | 2.13                         | 2             |
| 106            | KVW-IMPSSLRG-3,180(2)-19AR90SE-3,I89(4)-R-G4≥1          | 2.09                         | 7             |
| 107            | KVW-IMPSSLRG-3,272(2)-19AR90SE-3,I89(4)-R-G4≥1          | 1.98                         | 6             |
| 108            | KVW-IMPSSLRG-3,366(2)-19AR90SE-3,I89(4)-R-G4≥1          | 1.97                         | 3             |
| 109            | KVW-IMPSSLRG-3,180(2)-3,CL-3,CL-13AR90SE-R-G4≥1         | 1.96                         | 10            |



| Glass Option # | Model Code                                              | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|---------------------------------------------------------|------------------------------|---------------|
| 110            | KVW-IMPSSLRG-3,272(2)-3,CL-3,CL-13AR90SE-R-G4≥1         | 1.92                         | 6             |
| 111            | KVW-IMPSSLRG-3,366(2)-3,CL-3,CL-13AR90SE-R-G4≥1         | 1.91                         | 4             |
| 112            | KVW-IMPSSLRG-3,180(2)-3,CL-3,189(6)-13AR90SE-R-G4≥1     | 1.84                         | 12            |
| 113            | KVW-IMPSSLRG-3,272(2)-3,CL-3,189(6)-13AR90SE-R-G4≥1     | 1.83                         | 8             |
| 114            | KVW-IMPSSLRG-3,366(2)-3,CL-3,189(6)-13AR90SE-R-G4≥1     | 1.82                         | 6             |
| 115            | KVW-IMPSSLRG-3,180(2)-3,180(4)-3,189(6)-13AR90SE-R-G4≥1 | 1.73                         | 13            |
| 116            | KVW-IMPSSLRG-3,272(2)-3,180(4)-3,189(6)-13AR90SE-R-G4≥1 | 1.72                         | 10            |
| 117            | KVW-IMPSSLRG-3,366(2)-3,180(4)-3,189(6)-13AR90SE-R-G4≥1 | 1.75                         | 7             |
| 118            | KVW-IMPSSLRG-3,272(2)-19AR90SE-3,CL-G4≥1                | 1.77                         | 10            |
| 119            | KVW-IMPSSLRG-3,180(2)-19AR90SE-3,189(4)-G4≥1            | 1.70                         | 16            |
| 120            | KVW-IMPSSLRG-3,272(2)-19AR90SE-3,189(4)-G4≥1            | 1.63                         | 13            |
| 121            | KVW-IMPSSLRG-3,366(2)-19AR90SE-3,189(4)-G4≥1            | 1.61                         | 11            |
| 122            | KVW-IMPSSLRG-3,180(2)-3,CL-3,CL-13AR90SE-G4≥1           | 1.57                         | 18            |
| 123            | KVW-IMPSSLRG-3,272(2)-3,CL-3,CL-13AR90SE-G4≥1           | 1.56                         | 14            |
| 124            | KVW-IMPSSLRG-3,366(2)-3,CL-3,CL-13AR90SE-G4≥1           | 1.55                         | 12            |
| 125            | KVW-IMPSSLRG-3,180(2)-3,CL-3,189(6)-13AR90SE-G4≥1       | 1.48                         | 20            |
| 126            | KVW-IMPSSLRG-3,272(2)-3,CL-3,189(6)-13AR90SE-G4≥1       | 1.47                         | 16            |
| 127            | KVW-IMPSSLRG-3,366(2)-3,CL-3,189(6)-13AR90SE-G4≥1       | 1.46                         | 14            |
| 128            | KVW-IMPSSLRG-3,180(2)-3,180(4)-3,189(6)-13AR90SE-G4≥1   | 1.41                         | 20            |
| 129            | KVW-IMPSSLRG-3,272(2)-3,180(4)-3,189(6)-13AR90SE-G4≥1   | 1.36                         | 18            |
| 130            | KVW-IMPSSLRG-3,366(2)-3,180(4)-3,189(6)-13AR90SE-G4≥1   | 1.36                         | 16            |
| 131            | KVW-IMPSSLRG-3,272(2)-19AR90SE-3,CL-R-G5<1              | 2.13                         | 4             |
| 132            | KVW-IMPSSLRG-3,180(2)-19AR90SE-3,189(4)-R-G5<1          | 2.09                         | 9             |
| 133            | KVW-IMPSSLRG-3,272(2)-19AR90SE-3,189(4)-R-G5<1          | 1.98                         | 6             |
| 134            | KVW-IMPSSLRG-3,366(2)-19AR90SE-3,189(4)-R-G5<1          | 1.97                         | 4             |
| 135            | KVW-IMPSSLRG-3,180(2)-3,CL-3,CL-13AR90SE-R-G5<1         | 1.93                         | 12            |
| 136            | KVW-IMPSSLRG-3,272(2)-3,CL-3,CL-13AR90SE-R-G5<1         | 1.92                         | 7             |
| 137            | KVW-IMPSSLRG-3,366(2)-3,CL-3,CL-13AR90SE-R-G5<1         | 1.91                         | 4             |
| 138            | KVW-IMPSSLRG-3,180(2)-3,CL-3,189(6)-13AR90SE-R-G5<1     | 1.84                         | 13            |
| 139            | KVW-IMPSSLRG-3,272(2)-3,CL-3,189(6)-13AR90SE-R-G5<1     | 1.83                         | 9             |
| 140            | KVW-IMPSSLRG-3,366(2)-3,CL-3,189(6)-13AR90SE-R-G5<1     | 1.82                         | 6             |
| 141            | KVW-IMPSSLRG-3,180(2)-3,180(4)-3,189(6)-13AR90SE-R-G5<1 | 1.73                         | 15            |
| 142            | KVW-IMPSSLRG-3,272(2)-3,180(4)-3,189(6)-13AR90SE-R-G5<1 | 1.72                         | 11            |
| 143            | KVW-IMPSSLRG-3,366(2)-3,180(4)-3,189(6)-13AR90SE-R-G5<1 | 1.75                         | 8             |
| 144            | KVW-IMPSSLRG-3,272(2)-19AR90SE-3,CL-G5<1                | 1.77                         | 11            |
| 145            | KVW-IMPSSLRG-3,180(2)-19AR90SE-3,189(4)-G5<1            | 1.70                         | 18            |
| 146            | KVW-IMPSSLRG-3,272(2)-19AR90SE-3,189(4)-G5<1            | 1.63                         | 14            |
| 147            | KVW-IMPSSLRG-3,366(2)-19AR90SE-3,189(4)-G5<1            | 1.61                         | 11            |
| 148            | KVW-IMPSSLRG-3,180(2)-3,CL-3,CL-13AR90SE-G5<1           | 1.57                         | 19            |



| Glass Option # | Model Code                                              | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|---------------------------------------------------------|------------------------------|---------------|
| 149            | KVW-IMPSLLRG-3,272(2)-3,CL-3,CL-13AR90SE-G5<1           | 1.56                         | 15            |
| 150            | KVW-IMPSLLRG-3,366(2)-3,CL-3,CL-13AR90SE-G5<1           | 1.55                         | 12            |
| 151            | KVW-IMPSLLRG-3,180(2)-3,CL-3,189(6)-13AR90SE-G5<1       | 1.48                         | 21            |
| 152            | KVW-IMPSLLRG-3,272(2)-3,CL-3,189(6)-13AR90SE-G5<1       | 1.47                         | 17            |
| 153            | KVW-IMPSLLRG-3,366(2)-3,CL-3,189(6)-13AR90SE-G5<1       | 1.46                         | 14            |
| 154            | KVW-IMPSLLRG-3,180(2)-3,180(4)-3,189(6)-13AR90SE-G5<1   | 1.41                         | 22            |
| 155            | KVW-IMPSLLRG-3,272(2)-3,180(4)-3,189(6)-13AR90SE-G5<1   | 1.36                         | 19            |
| 156            | KVW-IMPSLLRG-3,366(2)-3,180(4)-3,189(6)-13AR90SE-G5<1   | 1.36                         | 16            |
| 157            | KVW-IMPSLLRG-3,272(2)-19AR90SE-3,CL-R-G6<1              | 2.13                         | 2             |
| 158            | KVW-IMPSLLRG-3,180(2)-19AR90SE-3,189(4)-R-G6<1          | 2.09                         | 7             |
| 159            | KVW-IMPSLLRG-3,272(2)-19AR90SE-3,189(4)-R-G6<1          | 1.98                         | 6             |
| 160            | KVW-IMPSLLRG-3,366(2)-19AR90SE-3,189(4)-R-G6<1          | 1.97                         | 3             |
| 161            | KVW-IMPSLLRG-3,180(2)-3,CL-3,CL-13AR90SE-R-G6<1         | 1.93                         | 10            |
| 162            | KVW-IMPSLLRG-3,272(2)-3,CL-3,CL-13AR90SE-R-G6<1         | 1.92                         | 6             |
| 163            | KVW-IMPSLLRG-3,366(2)-3,CL-3,CL-13AR90SE-R-G6<1         | 1.91                         | 4             |
| 164            | KVW-IMPSLLRG-3,180(2)-3,CL-3,189(6)-13AR90SE-R-G6<1     | 1.84                         | 12            |
| 165            | KVW-IMPSLLRG-3,272(2)-3,CL-3,189(6)-13AR90SE-R-G6<1     | 1.83                         | 8             |
| 166            | KVW-IMPSLLRG-3,366(2)-3,CL-3,189(6)-13AR90SE-R-G6<1     | 1.82                         | 6             |
| 167            | KVW-IMPSLLRG-3,180(2)-3,180(4)-3,189(6)-13AR90SE-R-G6<1 | 1.73                         | 13            |
| 168            | KVW-IMPSLLRG-3,272(2)-3,180(4)-3,189(6)-13AR90SE-R-G6<1 | 1.72                         | 10            |
| 169            | KVW-IMPSLLRG-3,366(2)-3,180(4)-3,189(6)-13AR90SE-R-G6<1 | 1.75                         | 7             |
| 170            | KVW-IMPSLLRG-3,272(2)-19AR90SE-3,CL-G6<1                | 1.77                         | 10            |
| 171            | KVW-IMPSLLRG-3,180(2)-19AR90SE-3,189(4)-G6<1            | 1.70                         | 16            |
| 172            | KVW-IMPSLLRG-3,272(2)-19AR90SE-3,189(4)-G6<1            | 1.63                         | 13            |
| 173            | KVW-IMPSLLRG-3,366(2)-19AR90SE-3,189(4)-G6<1            | 1.61                         | 11            |
| 174            | KVW-IMPSLLRG-3,180(2)-3,CL-3,CL-13AR90SE-G6<1           | 1.57                         | 18            |
| 175            | KVW-IMPSLLRG-3,272(2)-3,CL-3,CL-13AR90SE-G6<1           | 1.56                         | 14            |
| 176            | KVW-IMPSLLRG-3,366(2)-3,CL-3,CL-13AR90SE-G6<1           | 1.55                         | 12            |
| 177            | KVW-IMPSLLRG-3,180(2)-3,CL-3,189(6)-13AR90SE-G6<1       | 1.48                         | 20            |
| 178            | KVW-IMPSLLRG-3,272(2)-3,CL-3,189(6)-13AR90SE-G6<1       | 1.47                         | 16            |
| 179            | KVW-IMPSLLRG-3,366(2)-3,CL-3,189(6)-13AR90SE-G6<1       | 1.46                         | 14            |
| 180            | KVW-IMPSLLRG-3,180(2)-3,180(4)-3,189(6)-13AR90SE-G6<1   | 1.41                         | 20            |
| 181            | KVW-IMPSLLRG-3,272(2)-3,180(4)-3,189(6)-13AR90SE-G6<1   | 1.36                         | 18            |
| 182            | KVW-IMPSLSML-3,366(2)-3,180(4)-3,189(6)-13AR90SE-G6<1   | 1.36                         | 16            |

### Imperial Series Transom

| Primary Designator                                                                 | DP Positive         | DP Negative           | Water Penetration Pressure | Air Leakage (Canada) |
|------------------------------------------------------------------------------------|---------------------|-----------------------|----------------------------|----------------------|
| Class R – PG60:<br>Size tested 1829 x 1219 mm (~72 x 48 in) –<br>Transom (Type TR) | 2880 Pa<br>(60 psf) | -2880 Pa<br>(-60 psf) | 510 Pa<br>(10.65 psf)      | Fixed Level          |

| Glass Option # | Model Code                                           | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|------------------------------------------------------|------------------------------|---------------|
| 1              | KVW-IMPTR-3,272(2)-19AR90SE-3,CL-R                   | 1.59                         | 23            |
| 2              | KVW-IMPTR-3,180(2)-19AR90SE-3,I89(4)-R               | 1.41                         | 37            |
| 3              | KVW-IMPTR-3,272(2)-19AR90SE-3,I89(4)-R               | 1.38                         | 27            |
| 4              | KVW-IMPTR-3,366(2)-19AR90SE-3,I89(4)-R               | 1.35                         | 22            |
| 5              | KVW-IMPTR-3,180(2)-3,CL-3,CL-13AR90SE-R              | 1.26                         | 38            |
| 6              | KVW-IMPTR-3,272(2)-3,CL-3,CL-13AR90SE-R              | 1.24                         | 29            |
| 7              | KVW-IMPTR-3,366(2)-3,CL-3,CL-13AR90SE-R              | 1.22                         | 24            |
| 8              | KVW-IMPTR-3,180(2)-3,CL-3,I89(6)-13AR90SE-R          | 1.13                         | 40            |
| 9              | KVW-IMPTR-3,272(2)-3,CL-3,I89(6)-13AR90SE-R          | 1.11                         | 32            |
| 10             | KVW-IMPTR-3,366(2)-3,CL-3,I89(6)-13AR90SE-R          | 1.10                         | 27            |
| 11             | KVW-IMPTR-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R      | 0.94                         | 43            |
| 12             | KVW-IMPTR-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R      | 0.92                         | 35            |
| 13             | KVW-IMPTR-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R      | 0.91                         | 30            |
| 14             | KVW-IMPTR-3,272(2)-19AR90SE-3,CL-R-G1<1              | 1.59                         | 22            |
| 15             | KVW-IMPTR-3,180(2)-19AR90SE-3,I89(4)-R-G1<1          | 1.41                         | 34            |
| 16             | KVW-IMPTR-3,272(2)-19AR90SE-3,I89(4)-R-G1<1          | 1.38                         | 26            |
| 17             | KVW-IMPTR-3,366(2)-19AR90SE-3,I89(4)-R-G1<1          | 1.35                         | 21            |
| 18             | KVW-IMPTR-3,180(2)-3,CL-3,CL-13AR90SE-R-G1<1         | 1.26                         | 36            |
| 19             | KVW-IMPTR-3,272(2)-3,CL-3,CL-13AR90SE-R-G1<1         | 1.24                         | 28            |
| 20             | KVW-IMPTR-3,366(2)-3,CL-3,CL-13AR90SE-R-G1<1         | 1.22                         | 23            |
| 21             | KVW-IMPTR-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G1<1     | 1.13                         | 38            |
| 22             | KVW-IMPTR-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G1<1     | 1.11                         | 31            |
| 23             | KVW-IMPTR-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G1<1     | 1.10                         | 26            |
| 24             | KVW-IMPTR-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G1<1 | 0.94                         | 41            |
| 25             | KVW-IMPTR-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G1<1 | 0.92                         | 34            |
| 26             | KVW-IMPTR-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G1<1 | 0.91                         | 30            |
| 27             | KVW-IMPTR-3,272(2)-19AR90SE-3,CL-R-G2≥1              | 1.59                         | 20            |
| 28             | KVW-IMPTR-3,180(2)-19AR90SE-3,I89(4)-R-G2≥1          | 1.41                         | 31            |
| 29             | KVW-IMPTR-3,272(2)-19AR90SE-3,I89(4)-R-G2≥1          | 1.38                         | 24            |
| 30             | KVW-IMPTR-3,366(2)-19AR90SE-3,I89(4)-R-G2≥1          | 1.35                         | 20            |
| 31             | KVW-IMPTR-3,180(2)-3,CL-3,CL-13AR90SE-R-G2≥1         | 1.26                         | 34            |



| Glass Option # | Model Code                                           | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|------------------------------------------------------|------------------------------|---------------|
| 32             | KVW-IMPTR-3,272(2)-3,CL-3,CL-13AR90SE-R-G2≥1         | 1.24                         | 27            |
| 33             | KVW-IMPTR-3,366(2)-3,CL-3,CL-13AR90SE-R-G2≥1         | 1.22                         | 22            |
| 34             | KVW-IMPTR-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G2≥1     | 1.13                         | 36            |
| 35             | KVW-IMPTR-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G2≥1     | 1.11                         | 29            |
| 36             | KVW-IMPTR-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G2≥1     | 1.10                         | 25            |
| 37             | KVW-IMPTR-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G2≥1 | 0.94                         | 38            |
| 38             | KVW-IMPTR-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G2≥1 | 0.92                         | 33            |
| 39             | KVW-IMPTR-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G2≥1 | 0.91                         | 29            |
| 40             | KVW-IMPTR-3,272(2)-19AR90SE-3,CL-R-G3<1              | 1.59                         | 22            |
| 41             | KVW-IMPTR-3,180(2)-19AR90SE-3,I89(4)-R-G3<1          | 1.41                         | 34            |
| 42             | KVW-IMPTR-3,272(2)-19AR90SE-3,I89(4)-R-G3<1          | 1.38                         | 26            |
| 43             | KVW-IMPTR-3,366(2)-19AR90SE-3,I89(4)-R-G3<1          | 1.35                         | 21            |
| 44             | KVW-IMPTR-3,180(2)-3,CL-3,CL-13AR90SE-R-G3<1         | 1.28                         | 35            |
| 45             | KVW-IMPTR-3,272(2)-3,CL-3,CL-13AR90SE-R-G3<1         | 1.26                         | 27            |
| 46             | KVW-IMPTR-3,366(2)-3,CL-3,CL-13AR90SE-R-G3<1         | 1.24                         | 23            |
| 47             | KVW-IMPTR-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G3<1     | 1.13                         | 38            |
| 48             | KVW-IMPTR-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G3<1     | 1.11                         | 31            |
| 49             | KVW-IMPTR-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G3<1     | 1.10                         | 26            |
| 50             | KVW-IMPTR-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G3<1 | 0.94                         | 41            |
| 51             | KVW-IMPTR-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G3<1 | 0.93                         | 34            |
| 52             | KVW-IMPTR-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G3<1 | 0.92                         | 29            |
| 53             | KVW-IMPTR-3,272(2)-19AR90SE-3,CL-R-G4≥1              | 1.59                         | 20            |
| 54             | KVW-IMPTR-3,180(2)-19AR90SE-3,I89(4)-R-G4≥1          | 1.41                         | 31            |
| 55             | KVW-IMPTR-3,272(2)-19AR90SE-3,I89(4)-R-G4≥1          | 1.38                         | 24            |
| 56             | KVW-IMPTR-3,366(2)-19AR90SE-3,I89(4)-R-G4≥1          | 1.35                         | 20            |
| 57             | KVW-IMPTR-3,180(2)-3,CL-3,CL-13AR90SE-R-G4≥1         | 1.29                         | 33            |
| 58             | KVW-IMPTR-3,272(2)-3,CL-3,CL-13AR90SE-R-G4≥1         | 1.27                         | 26            |
| 59             | KVW-IMPTR-3,366(2)-3,CL-3,CL-13AR90SE-R-G4≥1         | 1.25                         | 22            |
| 60             | KVW-IMPTR-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G4≥1     | 1.14                         | 36            |
| 61             | KVW-IMPTR-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G4≥1     | 1.12                         | 29            |
| 62             | KVW-IMPTR-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G4≥1     | 1.10                         | 25            |
| 63             | KVW-IMPTR-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G4≥1 | 0.94                         | 38            |
| 64             | KVW-IMPTR-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G4≥1 | 0.93                         | 33            |
| 65             | KVW-IMPTR-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G4≥1 | 0.92                         | 28            |
| 66             | KVW-IMPTR-3,272(2)-19AR90SE-3,CL-R-G5<1              | 1.59                         | 20            |
| 67             | KVW-IMPTR-3,180(2)-19AR90SE-3,I89(4)-R-G5<1          | 1.41                         | 31            |
| 68             | KVW-IMPTR-3,272(2)-19AR90SE-3,I89(4)-R-G5<1          | 1.38                         | 24            |
| 69             | KVW-IMPTR-3,366(2)-19AR90SE-3,I89(4)-R-G5<1          | 1.35                         | 20            |
| 70             | KVW-IMPTR-3,180(2)-3,CL-3,CL-13AR90SE-R-G5<1         | 1.26                         | 34            |





| Glass Option # | Model Code                                           | U-Value (W/m <sup>2</sup> K) | Energy Rating |
|----------------|------------------------------------------------------|------------------------------|---------------|
| 71             | KVW-IMPTR-3,272(2)-3,CL-3,CL-13AR90SE-R-G5<1         | 1.24                         | 27            |
| 72             | KVW-IMPTR-3,366(2)-3,CL-3,CL-13AR90SE-R-G5<1         | 1.22                         | 22            |
| 73             | KVW-IMPTR-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G5<1     | 1.13                         | 36            |
| 74             | KVW-IMPTR-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G5<1     | 1.11                         | 29            |
| 75             | KVW-IMPTR-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G5<1     | 1.10                         | 25            |
| 76             | KVW-IMPTR-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G5<1 | 0.94                         | 38            |
| 77             | KVW-IMPTR-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G5<1 | 0.92                         | 33            |
| 78             | KVW-IMPTR-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G5<1 | 0.91                         | 29            |
| 79             | KVW-IMPTR-3,272(2)-19AR90SE-3,CL-R-G6<1              | 1.59                         | 22            |
| 80             | KVW-IMPTR-3,180(2)-19AR90SE-3,I89(4)-R-G6<1          | 1.41                         | 34            |
| 81             | KVW-IMPTR-3,272(2)-19AR90SE-3,I89(4)-R-G6<1          | 1.38                         | 26            |
| 82             | KVW-IMPTR-3,366(2)-19AR90SE-3,I89(4)-R-G6<1          | 1.35                         | 21            |
| 83             | KVW-IMPTR-3,180(2)-3,CL-3,CL-13AR90SE-R-G6<1         | 1.28                         | 35            |
| 84             | KVW-IMPTR-3,272(2)-3,CL-3,CL-13AR90SE-R-G6<1         | 1.26                         | 27            |
| 85             | KVW-IMPTR-3,366(2)-3,CL-3,CL-13AR90SE-R-G6<1         | 1.24                         | 23            |
| 86             | KVW-IMPTR-3,180(2)-3,CL-3,I89(6)-13AR90SE-R-G6<1     | 1.13                         | 38            |
| 87             | KVW-IMPTR-3,272(2)-3,CL-3,I89(6)-13AR90SE-R-G6<1     | 1.11                         | 31            |
| 88             | KVW-IMPTR-3,366(2)-3,CL-3,I89(6)-13AR90SE-R-G6<1     | 1.10                         | 26            |
| 89             | KVW-IMPTR-3,180(2)-3,180(4)-3,I89(6)-13AR90SE-R-G6<1 | 0.94                         | 41            |
| 90             | KVW-IMPTR-3,272(2)-3,180(4)-3,I89(6)-13AR90SE-R-G6<1 | 0.93                         | 34            |
| 91             | KVW-IMPTR-3,366(2)-3,180(4)-3,I89(6)-13AR90SE-R-G6<1 | 0.92                         | 29            |

**Notes:** Windows are not intended for installation in storefronts, non-operable portions of curtain wall, fixed glazing cast into precast concrete panels, greenhouses, skylights or sloped glazing. Test procedures are designed to test the performance of the test specimen only and are not necessarily used to test the performance of the installation, particularly the perimeter sealant joint and anchoring of the assembly.

The materials, products or systems listed herein have been qualified to bear the QAI Listing Mark under the conditions stated with each Listing. Only those products bearing the QAI Listing Mark are considered to be listed by QAI. No warrantee is expressed or implied, and no guarantee is provided that any jurisdictional authority will accept the Listing found herein. The appropriate authorities should be contacted regarding the acceptability of any given Listing. Visit the QAI Online Listing Directory located at [www.qai.org](http://www.qai.org) for the most up to date version of this Listing and to validate that this QAI Listing is active. Questions regarding this listing may be directed to [info@qai.org](mailto:info@qai.org). Please include the listing number in the request.