

TEST REPORT FOR GRAHAM ARCHITECTURAL PRODUCTS

Report No: Q5569.01-116-45 R0

Date: 11/21/23

SECTION 6

SIMULATION RESULTS

| TOTAL PRODUCT CALCULATIONS (GT2200 Double Hung (Straight Leg)) | | | | | | | | | | | | |
|--|--|------------------|--|------------------|-----------------------|------------------|--|----------|-----------------------------------|------|--------|-----------|
| Option Number | Pane Thickness 1 (in) | Gap Width 1 (in) | Pane Thickness 2 (in) | Gap Width 2 (in) | Pane Thickness 3 (in) | Gap Width 3 (in) | Pane Thickness 4 (in) | Gap Fill | Low-e (Surface #) | Tint | Spacer | Grid Type |
| | U-Factor (Btu/Hr-Ft ² -F) | | Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1) | | | | Visible Transmittance (VT) Grids (None / <1 / >=1) | | Condensation Resistance (CR) | | | |
| 1 | XL Edge: E272 / Arg95 / Clr / Arg95 / Clr (3mm/3mm/3mm) - 1-1/4" IG | | | | | | | | | | | |
| | 0.117 | 0.438 | 0.118 | 0.438 | 0.118 | | | ARG95 | 0.042(#2) | CL | SS-D | N |
| | U-Factor 0.35 | | SHGC(N) 0.29 | | | | VT(N) 0.47 | | CR 51 | | | |
| 2 | XL Edge: E272 / Arg95 / Clr / Arg95 / Clr (3mm/1mm/3mm) - 1-1/4" IG | | | | | | | | | | | |
| | 0.117 | 0.473 | 0.044 | 0.473 | 0.118 | | | ARG95 | 0.042(#2) | CL | SS-D | N |
| | U-Factor 0.35 | | SHGC(N) 0.29 | | | | VT(N) 0.47 | | CR 51 | | | |
| 3 | XL Edge: E366 / Arg95 / Clr / Arg95 / Clr (3mm/3mm/3mm) - 1-1/4" IG | | | | | | | | | | | |
| | 0.118 | 0.438 | 0.118 | 0.438 | 0.118 | | | ARG95 | 0.020(#2) | CL | SS-D | N |
| | U-Factor 0.35 | | SHGC(N) 0.20 | | | | VT(N) 0.42 | | CR 51 | | | |
| 4 | XL Edge: E366 / Arg95 / Clr / Arg95 / Clr (3mm/1mm/3mm) - 1-1/4" IG | | | | | | | | | | | |
| | 0.118 | 0.473 | 0.044 | 0.473 | 0.118 | | | ARG95 | 0.020(#2) | CL | SS-D | N |
| | U-Factor 0.35 | | SHGC(N) 0.20 | | | | VT(N) 0.43 | | CR 51 | | | |
| 5 | XL Edge: E180 / Arg95 / Clr / Arg95 / i89 (3mm/3mm/3mm) - 1-1/4" IG | | | | | | | | | | | |
| | 0.118 | 0.438 | 0.118 | 0.438 | 0.117 | | | ARG95 | 0.068(#2) / 0.149(#6) | CL | SS-D | N |
| | U-Factor 0.33 | | SHGC(N) 0.43 | | | | VT(N) 0.51 | | CR 50 | | | |
| 6 | XL Edge: E180 / Air / Clr / Air / E180 (3mm/3mm/3mm) - 1-1/4" IG | | | | | | | | | | | |
| | 0.118 | 0.438 | 0.118 | 0.438 | 0.118 | | | AIR | 0.068(#2) / 0.068(#5) | CL | SS-D | N |
| | U-Factor 0.35 | | SHGC(N) 0.42 | | | | VT(N) 0.50 | | CR 50 | | | |
| 7 | XL Edge: E272 / Arg95 / Clr / Arg95 / E180 (3mm/1mm/3mm) - 1-1/4" IG | | | | | | | | | | | |
| | 0.118 | 0.473 | 0.044 | 0.473 | 0.118 | | | ARG95 | 0.068(#2) / 0.068(#5) | CL | SS-D | N |
| | U-Factor 0.31 | | SHGC(N) 0.43 | | | | VT(N) 0.50 | | CR 50 | | | |
| 8 | XL Edge: E366 / Arg95 / Clr / Arg95 / E180 (3mm/3mm/3mm) - 1-1/4" IG | | | | | | | | | | | |
| | 0.118 | 0.438 | 0.118 | 0.438 | 0.118 | | | ARG95 | 0.020(#2) / 0.068(#5) | CL | SS-D | N |
| | U-Factor 0.31 | | SHGC(N) 0.19 | | | | VT(N) 0.41 | | CR 51 | | | |
| 9 | XL Edge: E366 / Arg95 / Clr / Arg95 / E180 (3mm/1mm/3mm) - 1-1/4" IG | | | | | | | | | | | |
| | 0.118 | 0.473 | 0.044 | 0.473 | 0.118 | | | ARG95 | 0.020(#2) / 0.068(#5) | CL | SS-D | N |
| | U-Factor 0.31 | | SHGC(N) 0.19 | | | | VT(N) 0.41 | | CR 51 | | | |
| 10 | XL Edge: E180 / Arg95 / E180 / Arg95 / i89 (3mm/3mm/3mm) - 1-1/4" IG | | | | | | | | | | | |
| | 0.118 | 0.438 | 0.118 | 0.438 | 0.117 | | | ARG95 | 0.068(#2) / 0.068(#4) / 0.149(#6) | CL | SS-D | N |
| | U-Factor 0.30 | | SHGC(N) 0.40 | | | | VT(N) 0.49 | | CR 50 | | | |

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SECTION 6 (Continued)

SIMULATION RESULTS

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|--|--|------------------|--|------------------|-----------------------|------------------|--|----------|------------------------------------|------|--------|-----------|
| Option Number | Pane Thickness 1 (in) | Gap Width 1 (in) | Pane Thickness 2 (in) | Gap Width 2 (in) | Pane Thickness 3 (in) | Gap Width 3 (in) | Pane Thickness 4 (in) | Gap Fill | Low-e (Surface #) | Tint | Spacer | Grid Type |
| | U-Factor (Btu/Hr-Ft ² -F) | | Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1) | | | | Visible Transmittance (VT) Grids (None / <1 / >=1) | | Condensation Resistance (CR) | | | |
| 11 | Technoform SP16: SB60 / Arg90 / Clr / Arg90 / Clr (3mm/3mm/3mm) - 1-1/4" IG | | | | | | | | | | | |
| | 0.129 | 0.438 | 0.129 | 0.438 | 0.129 | | | ARG90 | 0.035(#2) | CL | TP-D | N |
| | U-Factor 0.35 | | SHGC(N) 0.28 | | | | VT(N) 0.47 | | CR 51 | | | |
| 12 | Technoform SP16: SB70 / Arg90 / Clr / Arg90 / Clr (3mm/3mm/3mm) - 1-1/4" IG | | | | | | | | | | | |
| | 0.129 | 0.438 | 0.129 | 0.438 | 0.129 | | | ARG90 | 0.018(#2) | CL | TP-D | N |
| | U-Factor 0.34 | | SHGC(N) 0.19 | | | | VT(N) 0.41 | | CR 51 | | | |
| 13 | Chromatec Ultra: SN68 / Arg90 / Clr / Arg90 / Clr (3mm/3mm/3mm) - 1-1/4" IG | | | | | | | | | | | |
| | 0.117 | 0.438 | 0.117 | 0.438 | 0.117 | | | ARG90 | 0.039(#2) | CL | TS-D | N |
| | U-Factor 0.35 | | SHGC(N) 0.27 | | | | VT(N) 0.45 | | CR 51 | | | |
| 14 | Chromatec Ultra: SNx62/27 / Arg90 / Clr / Arg90 / Clr (3mm/3mm/3mm) - 1-1/4" IG | | | | | | | | | | | |
| | 0.117 | 0.438 | 0.117 | 0.438 | 0.117 | | | ARG90 | 0.020(#2) | CL | TS-D | N |
| | U-Factor 0.35 | | SHGC(N) 0.19 | | | | VT(N) 0.41 | | CR 51 | | | |
| 15 | Chromatec Ultra: SNx62/27 / Arg90 / Clr / Arg90 / IS20 (3mm/3mm/3mm) - 1-1/4" IG | | | | | | | | | | | |
| | 0.117 | 0.438 | 0.117 | 0.438 | 0.117 | | | ARG90 | 0.020(#2) / 0.198(#6) | CL | TS-D | N |
| | U-Factor 0.33 | | SHGC(N) 0.19 | | | | VT(N) 0.40 | | CR 50 | | | |