

TEST REPORT FOR GRAHAM ARCHITECTURAL PRODUCTS

Report No: H8272.03-116-45

Date: 05/22/20

SECTION 6

SIMULATION RESULTS

TOTAL PRODUCT CALCULATIONS (GT2200 Double Hung)												
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-Ft2-F)			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)				Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance (CR)		
1	E272 / ARG90 / CLR (5MM/5MM) - 1" IG											
	0.187	0.625	0.185					ARG90	0.042(#2)	CL	SS-D	N
	U-Factor 0.40			SHGC (N) 0.30				VT (N) 0.50		CR 50		
2	E272 / ARG90 / i89 (5MM/5MM) - 1" IG											
	0.187	0.625	0.187					ARG90	0.042(#2) / 0.149(#4)	CL	SS-D	N
	U-Factor 0.36			SHGC (N) 0.29				VT (N) 0.49		CR 44		
3	E366 / ARG90 / CLR (5MM/5MM) - 1" IG											
	0.185	0.625	0.185					ARG90	0.020(#2)	CL	SS-D	N
	U-Factor 0.39			SHGC (N) 0.20				VT (N) 0.45		CR 50		
4	E366 / ARG90 / i89 (5MM/5MM) - 1" IG											
	0.185	0.625	0.187					ARG90	0.020(#2) / 0.149(#4)	CL	SS-D	N
	U-Factor 0.35			SHGC (N) 0.20				VT (N) 0.44		CR 45		
5	E270 / ARG90 / CLR (6MM/6MM) - 1" IG											
	0.224	0.500	0.224					ARG90	0.035(#2)	CL	SS-D	N
	U-Factor 0.39			SHGC (N) 0.26				VT (N) 0.48		CR 50		
6	E272 / AIR / CLR (6MM/6MM) - 1" IG											
	0.224	0.500	0.224					AIR	0.042(#2)	CL	SS-D	N
	U-Factor 0.42			SHGC (N) 0.30				VT (N) 0.50		CR 50		
7	E272 / ARG90 / CLR (6MM/6MM) - 1" IG											
	0.224	0.500	0.224					ARG90	0.042(#2)	CL	SS-D	N
	U-Factor 0.39			SHGC (N) 0.30				VT (N) 0.50		CR 50		
8	E272 / ARG90 / i89 (6MM/6MM) - 1" IG											
	0.224	0.500	0.223					ARG90	0.042(#2) / 0.149(#4)	CL	SS-D	N
	U-Factor 0.35			SHGC (N) 0.29				VT (N) 0.48		CR 44		
9	E340 / ARG90 / CLR (6MM/6MM) - 1" IG											
	0.224	0.500	0.224					ARG90	0.028(#2)	CL	SS-D	N
	U-Factor 0.39			SHGC (N) 0.14				VT (N) 0.27		CR 50		
10	E366 / AIR / CLR (6MM/6MM) - 1" IG											
	0.224	0.500	0.224					AIR	0.020(#2)	CL	SS-D	N
	U-Factor 0.42			SHGC (N) 0.21				VT (N) 0.45		CR 50		

TEST REPORT FOR GRAHAM ARCHITECTURAL PRODUCTS

Report No: H8272.03-116-45

Date: 05/22/20

SECTION 6 (Continued)

SIMULATION RESULTS

TOTAL PRODUCT CALCULATIONS (GT2200 Double Hung)												
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	E366 / ARG90 / CLR (6MM/6MM) - 1" IG											
	0.224	0.500	0.224					ARG90	0.020(#2)	CL	SS-D	N
	U-Factor 0.39			SHGC (N) 0.20				VT (N) 0.45		CR 50		
12	E366 / ARG90 / i89 (6MM/6MM) - 1" IG											
	0.224	0.500	0.223					ARG90	0.020(#2) / 0.149(#4)	CL	SS-D	N
	U-Factor 0.35			SHGC (N) 0.20				VT (N) 0.44		CR 44		
13	E272 / ARG90 / CL-LAMI (6MM/2.7 030 PVB 2.7) - 1" IG											
	0.224	0.531	0.243					ARG90	0.042(#2)	CL	SS-D	N
	U-Factor 0.39			SHGC (N) 0.29				VT (N) 0.49		CR 49		
14	E366 / ARG90 / CL-LAMI (6MM/2.7 030 PVB 2.7) - 1" IG											
	0.224	0.531	0.243					ARG90	0.020(#2)	CL	SS-D	N
	U-Factor 0.39			SHGC (N) 0.20				VT (N) 0.44		CR 49		
15	SB60 / ARG90 / CLR (6MM/6MM) - 1" IG											
	0.223	0.500	0.223					ARG90	0.035(#2)	CL	SS-D	N
	U-Factor 0.40			SHGC (N) 0.29				VT (N) 0.50		CR 49		
16	SB70 / ARG90 / CLR (6MM/6MM) - 1" IG											
	0.223	0.500	0.223					ARG90	0.018(#2)	CL	SS-D	N
	U-Factor 0.40			SHGC (N) 0.20				VT (N) 0.46		CR 49		
17	SN68 / AIR / CLR (6MM/6MM) - 1" IG											
	0.221	0.500	0.221					AIR	0.039(#2)	CL	SS-D	N
	U-Factor 0.43			SHGC (N) 0.28				VT (N) 0.48		CR 48		
18	SN68 / ARG90 / CLR (6MM/6MM) - 1" IG											
	0.221	0.500	0.221					ARG90	0.039(#2)	CL	SS-D	N
	U-Factor 0.40			SHGC (N) 0.28				VT (N) 0.48		CR 49		
19	SNX 62/27 / ARG90 / CLR (6MM/6MM) - 1" IG											
	0.221	0.500	0.221					ARG90	0.020(#2)	CL	SS-D	N
	U-Factor 0.40			SHGC (N) 0.16				VT (N) 0.32		CR 49		
20	SNX 62/27 / ARG90 / CL-LAMI (6MM/2.7 030 PVB 2.7) - 1" IG											
	0.221	0.531	0.243					ARG90	0.020(#2)	CL	SS-D	N
	U-Factor 0.40			SHGC (N) 0.16				VT (N) 0.32		CR 49		

TEST REPORT FOR GRAHAM ARCHITECTURAL PRODUCTS

Report No: H8272.03-116-45

Date: 05/22/20

SECTION 6 (Continued)

SIMULATION RESULTS

TOTAL PRODUCT CALCULATIONS (GT2200 Double Hung)												
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-Ft2-F)			Solar Heat Gain Coefficient (SHGC) Grids (None / <1 / >=1)				Visible Transmittance (VT) Grids (None / <1 / >=1)		Condensation Resistance (CR)		
21	E270 / ARG90 / CL-LAMI (5MM/3MM 060 PVB 3MM) - 1" IG											
	0.185	0.508	0.304					ARG90	0.035(#2)	CL	SS-D	N
	U-Factor 0.39			SHGC (N) 0.26				VT (N) 0.48		CR 50		
22	E270 / AIR / CL-LAMI (5MM/3MM 060 PVB 3MM) - 1" IG											
	0.185	0.508	0.304					AIR	0.035(#2)	CL	SS-D	N
	U-Factor 0.42			SHGC (N) 0.27				VT (N) 0.48		CR 50		
23	E272 / ARG90 / CL-LAMI (5MM/3MM 060 PVB 3MM) - 1" IG											
	0.187	0.508	0.304					ARG90	0.042(#2)	CL	SS-D	N
	U-Factor 0.39			SHGC (N) 0.30				VT (N) 0.49		CR 50		
24	E272 / AIR / CL-LAMI (5MM/3MM 060 PVB 3MM) - 1" IG											
	0.187	0.508	0.304					AIR	0.042(#2)	CL	SS-D	N
	U-Factor 0.42			SHGC (N) 0.30				VT (N) 0.49		CR 50		
25	SB60 / ARG90 / CL-LAMI (5MM/3MM 060 PVB 3MM) - 1" IG											
	0.184	0.508	0.304					ARG90	0.035(#2)	CL	SS-D	N
	U-Factor 0.40			SHGC (N) 0.29				VT (N) 0.50		CR 49		
26	SB60 / AIR / CL-LAMI (5MM/3MM 060 PVB 3MM) - 1" IG											
	0.184	0.508	0.304					AIR	0.035(#2)	CL	SS-D	N
	U-Factor 0.43			SHGC (N) 0.29				VT (N) 0.50		CR 48		
27	E270-LAMI / ARG / CL-LAMI (3MM 060PVB 3MM/3MM 060 PVB 3MM) - 1" IG											
	0.296	0.400	0.304					ARG90	0.035(#2)	CL	SS-D	N
	U-Factor 0.39			SHGC (N) 0.26				VT (N) 0.47		CR 49		
28	E270-LAMI / AIR / CL-LAMI (3MM 060PVB 3MM/3MM 060 PVB 3MM) - 1" IG											
	0.296	0.400	0.304					AIR	0.035(#2)	CL	SS-D	N
	U-Factor 0.43			SHGC (N) 0.27				VT (N) 0.47		CR 49		
29	E272-LAMI / ARG / CL-LAMI (3MM 060PVB 3MM/3MM 060 PVB 3MM) - 1" IG											
	0.295	0.400	0.304					ARG90	0.042(#2)	CL	SS-D	N
	U-Factor 0.39			SHGC (N) 0.29				VT (N) 0.49		CR 49		
30	E272-LAMI / AIR / CL-LAMI (3MM 060PVB 3MM/3MM 060 PVB 3MM) - 1" IG											
	0.295	0.400	0.304					AIR	0.042(#2)	CL	SS-D	N
	U-Factor 0.43			SHGC (N) 0.30				VT (N) 0.49		CR 49		

TEST REPORT FOR GRAHAM ARCHITECTURAL PRODUCTS

Report No: H8272.03-116-45

Date: 05/22/20

SECTION 6 (Continued)

SIMULATION RESULTS

TOTAL PRODUCT CALCULATIONS (GT2200 Double Hung)												
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)			
31	SB60-LAMI / ARG / CL-LAMI (3MM 060PVB 3MM/3MM 060 PVB 3MM) - 1" IG											
	0.318	0.378	0.304					ARG90	0.035(#2)	CL	SS-D	N
	U-Factor 0.40		SHGC (N) 0.28				VT (N) 0.49		CR 49			
32	SB60-LAMI / AIR / CL-LAMI (3MM 060PVB 3MM/3MM 060 PVB 3MM) - 1" IG											
	0.318	0.378	0.304					AIR	0.035(#2)	CL	SS-D	N
	U-Factor 0.44		SHGC (N) 0.29				VT (N) 0.49		CR 48			