

Standard Glass Package Thermal Performance

Glazing	Window Style	Total Unit U-Value ¹	Visible Light ² Transmittance		Daylight ³ Transmittance	Tdw-ISO ⁴	SHGC ⁵		Condensation Resistance ⁶
			Grids	No Grids			Grids	No Grids	
Laminated, low-conductance spacer and argon gas fill.	Double-hung no grids	0.28	—	0.46	64%	0.462	—	0.20	58
	Double-hung w/flat grids	0.28	0.40	—	64%	0.462	0.18	—	58
	Double-hung w/deluxe grids	0.28	0.40	—	64%	0.462	0.18	—	58
	Single-hung no grids	0.28	—	0.45	64%	0.462	—	0.20	58
	Single-hung w/flat grids	0.28	0.40	—	64%	0.462	0.18	—	58
	Single-hung w/deluxe grids	0.28	0.40	—	64%	0.462	0.18	—	58
	Picture no grids	0.25	—	0.50	64%	0.443	—	0.22	62
	Picture w/flat grids	0.25	0.44	—	64%	0.443	0.20	—	62
	Picture w/deluxe grids	0.25	0.44	—	64%	0.443	0.20	—	62
	Geometric no grids	0.24	—	0.53	64%	0.443	—	0.23	63
	Geometric w/flat grids	0.24	0.57	—	64%	0.443	0.21	—	63
	Geometric w/deluxe grids	0.24	0.57	—	64%	0.443	0.21	—	63
	Casement no grids	0.27	—	0.41	64%	0.443	—	0.19	58
	Casement w/flat grids	0.27	0.37	—	64%	0.443	0.17	—	58
	Casement w/deluxe grids	0.27	0.37	—	64%	0.443	0.17	—	58
	Casement Picture no grids	0.24	—	0.49	64%	0.443	—	0.21	58
	Casement Picture w/flat grids	0.24	0.43	—	64%	0.443	0.19	—	58
	Casement Picture w/deluxe grids	0.24	0.43	—	64%	0.443	0.19	—	58
	Awning no grids	0.26	—	0.41	64%	0.443	—	0.19	57
	Awning w/flat grids	0.26	0.37	—	64%	0.443	0.17	—	57
	Awning w/deluxe grids	0.26	0.37	—	64%	0.443	0.17	—	57
	2-lite slider no grids	0.28	—	0.45	64%	0.443	—	0.20	60
	2-lite slider w/flat grids	0.28	0.40	—	64%	0.443	0.18	—	60
	2-lite slider w/deluxe grids	0.28	0.40	—	64%	0.443	0.18	—	60
	Patio Door no grids - aluminum sill	0.31	—	0.44	64%	0.443	—	0.19	52
	Patio Door w/flat grids - aluminum sill	0.31	0.38	—	64%	0.443	0.17	—	52
	Patio Door w/deluxe grids - aluminum sill	0.31	0.38	—	64%	0.443	0.17	—	52
	Patio Door no grids - vinyl sill	0.30	—	0.44	64%	0.443	—	0.19	56
	Patio Door w/flat grids - vinyl sill	0.30	0.38	—	64%	0.443	0.17	—	56
	Patio Door w/deluxe grids - vinyl sill	0.30	0.38	—	64%	0.443	0.17	—	56
Transom / Sidelite	0.25	—	0.62	64%	0.443	—	0.32	63	
Transom / Sidelite w/flat grids	0.25	0.56	—	64%	0.443	0.29	—	63	
Transom / Sidelite w/deluxe grids	0.25	0.56	—	64%	0.443	0.29	—	63	

Northern Zone Glass Package Thermal Performance

Glazing	Window Style	Total Unit U-Value ¹	Visible Light ² Transmittance		Daylight ³ Transmittance	Tdw-ISO ⁴	SHGC ⁵		Condensation Resistance ⁶
			Grids	No Grids			Grids	No Grids	
Laminated, low-conductance spacer and argon gas fill.	Double-hung no grids	0.28	—	0.51	71%	0.462	—	0.42	58
	Double-hung w/flat grids	0.28	0.45	—	71%	0.462	0.37	—	58
	Double-hung w/deluxe grids	0.28	0.45	—	71%	0.462	0.37	—	58
	Single-hung no grids	0.29	—	0.50	71%	0.462	—	0.41	58
	Single-hung w/flat grids	0.29	0.44	—	71%	0.462	0.37	—	58
	Single-hung w/deluxe grids	0.29	0.44	—	71%	0.462	0.37	—	58
	Picture no grids	0.26	—	0.55	71%	0.443	—	0.46	62
	Picture w/flat grids	0.26	0.49	—	71%	0.443	0.41	—	62
	Picture w/deluxe grids	0.26	0.49	—	71%	0.443	0.41	—	62
	Geometric no grids	0.25	—	0.60	71%	0.443	—	0.31	63
	Geometric w/flat grids	0.25	0.53	—	71%	0.443	0.28	—	63
	Geometric w/deluxe grids	0.26	0.53	—	71%	0.443	0.28	—	63
	Casement no grids	0.28	—	0.46	71%	0.443	—	0.38	58
	Casement w/flat grids	0.28	0.42	—	71%	0.443	0.35	—	58
	Casement w/deluxe grids	0.28	0.42	—	71%	0.443	0.35	—	58
	Casement Picture no grids	0.25	—	0.55	71%	0.443	—	0.30	58
	Casement Picture w/flat grids	0.25	0.49	—	71%	0.443	0.27	—	58
	Casement Picture w/deluxe grids	0.26	0.49	—	71%	0.443	0.27	—	58
	Awning no grids	0.28	—	0.46	71%	0.443	—	0.38	57
	Awning w/flat grids	0.28	0.42	—	71%	0.443	0.35	—	57
	Awning w/deluxe grids	0.28	0.42	—	71%	0.443	0.35	—	57
	2-lite slider no grids	0.28	—	0.48	71%	0.443	—	0.40	60
	2-lite slider w/flat grids	0.28	0.42	—	71%	0.443	0.35	—	60
	2-lite slider w/deluxe grids	0.28	0.42	—	71%	0.443	0.35	—	60
	Patio Door no grids - aluminum sill	0.32	—	0.49	71%	0.443	—	0.40	52
	Patio Door w/flat grids - aluminum sill	0.32	0.42	—	71%	0.443	0.35	—	52
	Patio Door w/deluxe grids - aluminum sill	0.32	0.42	—	71%	0.443	0.35	—	52
	Patio Door no grids - vinyl sill	0.30	—	0.49	71%	0.443	—	0.40	56
	Patio Door w/flat grids - vinyl sill	0.30	0.42	—	71%	0.443	0.35	—	56
	Patio Door w/deluxe grids - vinyl sill	0.30	0.42	—	71%	0.443	0.35	—	56
Transom / Sidelite no grids	0.25	—	0.62	71%	0.443	—	0.32	63	
Transom / Sidelite w/flat grids	0.25	0.56	—	71%	0.443	0.29	—	63	
Transom / Sidelite w/deluxe grids	0.25	0.56	—	71%	0.443	0.29	—	63	

All thermal and sound testing is done in accordance with required NFRC sizing.





Performance Data

OceanView - Impact Windows

Air, Water and Structural Performance

Window Style	Primary Unit Size	Secondary Unit Size	Total Unit Size	Test Method	Total Unit Air Infiltration @25MPH	Water (PSF)	Structural Rating	Overall Grade Rating
Double-hung	48" x 80"	—	—	ASTM E 1886-05 / ASTM E 1996-05	0.13 CFM	7.52	50	R50
Single-hung	48" x 80"	—	—	ASTM E 1886-05 / ASTM E 1996-05	0.05 CFM	7.52	50	R50
Single-hung	52" x 80"	—	—	ASTM E 1886-13 / ASTM E 1996-14	0.07 CFM	8.36	50	R50
Triple Single-hung	160" x 80"	—	TBD	ASTM E 1886-02 / ASTM E 1996-02	0.07 CFM	8.36	55	R50
Picture	72" x 72"	—	—	ASTM E 1886-02 / ASTM E 1996-02	0.02 CFM	9.20	50	R50
Picture	96" x 48"	—	—	ASTM E 1886-05 / ASTM E 1996-05	0.01 CFM	12.12	50	R50
Triple Picture	160" x 80"	—	TBD	ASTM E 1886-02 / ASTM E 1996-02	0.01 CFM	12.11	65	R65
Geometric	72" x 64"	—	—	ASTM E 1886-02 / ASTM E 1996-02	0.02 CFM	12.11	50	R50
Geometric	72" x 72"	—	—	ASTM E 1886-05 / ASTM E 1996-05	0.02 CFM	12.11	50	R50
Geometric	96" x 48"	—	—	ASTM E 1886-05 / ASTM E 1996-05	0.01 CFM	12.12	50	R50
Casement	36" x 72"	—	—	ASTM E 1886-05 / ASTM E 1996-05	0.01 CFM	12.11	50	R50
Casement Picture	36" x 72"	—	—	ASTM E 1886-05 / ASTM E 1996-05	0.01 CFM	12.11	50	R50
Awning	60" x 36"	—	—	ASTM E 1886-05 / ASTM E 1996-05	0.01 CFM	12.11	50	R50
2-Lite Slider	96" x 48"	—	—	ASTM E 1886-05 / ASTM E 1996-05	0.10 CFM	9.20	50	R50
2-Lite Slider	72" x 60"	—	—	ASTM E 1886-05 / ASTM E 1996-05	0.14 CFM	7.52	50	R50
2-Panel patio door - aluminum sill	96" x 96"	—	—	ASTM E1886 / E1996-02	0.12 CFM	7.50	50	R50
2-Panel patio door - vinyl sill	96" x 96"	—	—	AAMA 506-08	0.11 CFM	7.50	50	R50
2-Panel door transom†	96" x 48"	—	—	AAMA/WDMA/CSA 101/I.S.2/A440-05	0.01 CFM	12.12	50	R50
3-Panel patio door - aluminum sill*	144" x 96"	—	—	ASTM E 1886 / E 1996-05	0.12 CFM	7.50	50	R50
3-Panel patio door - vinyl sill*	144" x 96"	—	—	ASTM E 1886 / E 1996-05	0.27 CFM	7.50	50	R50
4-Panel patio door - aluminum sill*	192" x 96"	—	—	ASTM E 1886 / E 1996-05	0.27 CFM	7.50	50	R50
4-Panel patio door - vinyl sill*	192" x 96"	—	—	ASTM E 1886 / E 1996-05	0.27 CFM	7.50	50	R50
Sidelite	48" x 96"	—	—	AAMA 506-8	0.01 CFM	12.12	50	R50

†Overall size includes 1" per mullion per measurement.

All patio doors are available as a KD

*ONLY AVAILABLE AS KD

Sound Transmission

Window Style	Unit Size	IG Unit	Glazing	STC	OITC
Double-hung	47¼" x 59"	15/16"	1/8" tempered, 17/16" space, 3/32" SS clear / .090 clear PVB / 3/32" SS clear	34*	27*
Single-hung	47¼" x 59"	15/16"	1/8" tempered, 9/16" space, 3/32" SS clear / .090 clear PVB / 3/32" SS clear	34	27
Casement	23-1/2" x 59"	15/16"	1/8" tempered, 9/16" space, 3/32" SS clear / .090 clear PVB / 3/32" SS clear	35	28
2-Lite slider	59" x 47¼"	15/16"	1/8" annealed, 1/2" space, 1/8" annealed	28	23
Picture	47¼" x 59"	15/16"	1/8" tempered, 9/16" space, 3/32" SS clear / .1 clear PVB / 3/32" SS clear	35	28
Geometric	59" x 47¼"	15/16"	1/8" tempered, 9/16" space, 3/32" SS clear / .1 clear PVB / 3/32" SS clear	35	28
Patio door	78-3/4" x 78-3/4"	1"	1/8" tempered, 5/8" space, 5/16" laminated	34	28

STC rating was calculated in accordance with ASTM E 413.

*DH numbers are based on actual test results. The balance of the sound transmission tests are not yet complete; the theoretical numbers listed are based on the glass package and the style of window which are the determining factors of this test. Actual test results will be added when they become available. STC rating was calculated in accordance with ASTM E 413.

Modifications: none

Window Style Size

Double-hung	47-1/4" x 59"
Single-hung	47-1/4" x 59"
Picture	47-1/4" x 59"
Geometric	47-1/4" x 59"
Casement	23-5/8" x 59"
Awning	23-5/8" x 59"
Patio Door - Aluminum Sill	78-1/4" x 78-1/4"
Patio Door - Vinyl Sill	78-3/4" x 78-3/4"

¹ Windows tested per NFRC 100. Data applies to double-pane insulating glass units using double-strength glass and laminated double-strength glass with a ½" airspace. For doors, the data applies to double-pane insulating glass units using tempered double-strength glass and laminated double-strength glass with a 9/16" airspace.

² Tested using GED's Intercept® ULTRA low-conductance warm-edge spacer system. Calculations provided by Lawrence Berkeley Laboratory Window 5.2 and Optics5 software based on a 15/16" IG window unit and a 1" IG door unit.

³ Daylight transmittance measures the performance of the glass only.

⁴ International Standards Organization Damage Weighted Transmission Rating (Tdw-ISO) calculations performed by Lawrence Berkeley Laboratory 5.2 Windows software and is weighted using recommended International Commission on Illumination (CIE) standards.

⁵ Solar Heat Gain Coefficient (SHGC) tested in accordance with NFRC 200. This value varies by style, glazing system and grids.

⁶ Condensation resistance is tested in accordance with NFRC 500. Impact rating achieved for wind zone 3, missile level D.

