



Performance Data S-Series - New Construction Windows

Standard Glass Package Thermal Performance - For the North-Central, South-Central, and Southern Climate ENERGY STAR® Zones

Glazing	Window Style	Individual Unit Size	Total Unit U-Value ¹	Visible Light Transmittance ²		SHGC ⁵		Condensation Resistance ⁶	ENERGY STAR® Certified	
				Grids	No Grids	Grids	No Grids		Yes	No
Standard	Double-Hung	<= 48" x 72"	0.29	0.41	0.46	0.18	0.20	58	✓	
High-Performance Glass Package with low-e, low-conductance spacer, and argon fill.	Single-Hung	<= 40" x 72"	0.29	0.41	0.46	0.18	0.20	57	✓	
	Picture	ANY SIZE	0.26	0.45	0.51	0.20	0.22	61	✓	
	Geometric	ANY SIZE	0.25	0.48	0.54	0.21	0.23	63	✓	
	Casement	<= 36" x 72"	0.28	0.38	0.42	0.17	0.18	60	✓	
	Casement Picture	<= 72" x 72"	0.26	0.44	0.50	0.19	0.21	60	✓	
	Awning	<= 60" x 36"	0.29	0.38	0.42	0.17	0.18	56	✓	
	Slider	<= 96" x 48"	0.28	0.39	0.44	0.17	0.19	61	✓	
	Vinyl Sill Patio Door	<= 192" x 96"	0.31	0.39	0.45	0.17	0.20	56		X
	Transom/Sidelites	ANY SIZE	0.26	0.50	0.56	0.22	0.24	63	✓	

Northern Zone Glass Package Thermal Performance - For the Northern Climate ENERGY STAR® Zone

Glazing	Window Style	Individual Unit Size	Total Unit U-Value ¹	Visible Light Transmittance ²		SHGC ⁵		Condensation Resistance ⁶	ENERGY STAR® Certified	
				Grids	No Grids	Grids	No Grids		Yes	No
Standard	Double-Hung	<= 48" x 72"	0.30	0.48	0.54	0.38	0.43	57	NO GRIDS	GRIDS
High-Performance Glass Package with low-e, low-conductance spacer, and argon fill.	Single-Hung	<= 40" x 72"	0.30	0.48	0.54	0.38	0.42	57	NO GRIDS	GRIDS
	Picture	ANY SIZE	0.27	0.53	0.59	0.41	0.45	61	✓	
	Geometric	ANY SIZE	0.26	0.57	0.63	0.45	0.49	63	✓	
	Casement	<= 36" x 72"	0.29	0.44	0.49	0.35	0.38	59	NO GRIDS	GRIDS
	Casement Picture	<= 72" x 72"	0.27	0.49	0.51	0.41	0.46	60	✓	
	Awning	<= 60" x 36"	0.29	0.44	0.49	0.35	0.39	56	NO GRIDS	GRIDS
	Slider	<= 96" x 48"	0.29	0.46	0.52	0.36	0.40	61	NO GRIDS	GRIDS
	Vinyl Sill Patio Door	<= 192" x 96"	0.32	0.45	0.52	0.35	0.40	56		X
	Transom/Sidelites	ANY SIZE	0.27	0.59	0.66	0.46	0.51	62	✓	

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

Sound Transmission

Window Style	Unit Size	IG Unit	Glazing	STC	OITC
Double-Hung	47-1/4" x 59"	15/16"	1/8" annealed, 11/16" argon, 1/8" annealed	27	22
Single-Hung	47-1/4" x 59"	15/16"	1/8" annealed, 11/16" argon, 1/8" annealed	27	22
Picture	47-1/4" x 59"	15/16"	1/8" annealed, 11/16" argon, 1/8" annealed	31	25
Geometric	47-1/4" x 59"	7/8"	1/8" annealed, 11/16" argon, 1/8" annealed	31	25
Casement	23-3/4" x 59"	15/16"	1/8" annealed, 11/16" argon, 1/8" annealed	28	21
Awning	23-3/4" x 59"	15/16"	1/8" annealed, 11/16" argon, 1/8" annealed	28	21
Slider	59" x 47-1/4"	15/16"	1/8" annealed, 11/16" argon, 1/8" annealed	27	22
Patio door	78-3/4" x 78-3/4"	1"	1/8" tempered, 3/4" argon, 1/8" tempered	29	23

Modifications: none. STC rating was calculated in accordance with ASTM E 413.





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Air, Water and Structural Performance

Window Style	Individual Unit Size	Mulled Unit Size	Test Method	Total Unit Air Infiltration @25MPH	Water (PSF)	Structural Rating	Overall Grade Rating
Double-Hung	48" x 72"	—	AAMA/WDMA/CSA 101/I.S.2/A440-05	0.11 CFM	7.52	50	R50
Double-Hung	52" x 80"	—	AAMA/WDMA/CSA 101/I.S.2/A440-05	0.11 CFM	8.36	45	R45
Single-Hung	48" x 72"	—	AAMA/WDMA/CSA 101/I.S.2/A440-05	0.07 CFM	8.36	55	R55
Single-Hung	52" x 80"	—	AAMA/WDMA/CSA 101/I.S.2/A440-05	0.07 CFM	8.36	45	R45
Double-Hung Oriel	36" x 66"	—	AAMA/WDMA/CSA 101/I.S.2/A440-05	0.06 CFM	7.52	70	R50
Double-Hung Oriel	48" x 72"	—	AAMA/WDMA/CSA 101/I.S.2/A440-05	0.06 CFM	7.52	40	R40
Double-Hung Oriel	52" x 80"	—	AAMA/WDMA/CSA 101/I.S.2/A440-05	0.06 CFM	7.52	30	R30
Double-Hung Reverse Oriel	52" x 80"	—	AAMA/WDMA/CSA 101/I.S.2/A440-05	0.11 CFM	7.52	35	R35
Double-Hung Reverse Oriel	48" x 72"	—	AAMA/WDMA/CSA 101/I.S.2/A440-05	0.11 CFM	7.52	50	R50
Single-Hung Oriel	36" x 72"	—	AAMA/WDMA/CSA 101/I.S.2/A440-05	0.05 CFM	7.52	50	R50
Single-Hung Oriel	52" x 66"	—	AAMA/WDMA/CSA 101/I.S.2/A440-05	0.05 CFM	7.52	40	R40
Single-Hung Reverse Oriel	40" x 72"	—	AAMA/WDMA/CSA 101/I.S.2/A440-05	0.03 CFM	6.06	40	R40
Single-Hung Reverse Oriel	48" x 72"	—	AAMA/WDMA/CSA 101/I.S.2/A440-05	0.03 CFM	6.06	30	R30
Single-Hung Reverse Oriel	36" x 72"	—	AAMA/WDMA/CSA 101/I.S.2/A440-05	0.03 CFM	6.06	40	R40
Twin Double-Hung	52" x 80"	104" x 80"	AAMA/WDMA/CSA 101/IS2/A440-05	0.11 CFM	7.52	40	R40
Twin Double-Hung	47-3/4" x 80"	96" x 80"	AAMA/WDMA/CSA 101/IS2/A440-11	0.11 CFM	10.65	50	R50
Triple Double-Hung	52" x 80"	157" x 80"	AAMA/WDMA/CSA 101/I.S.2/A440-05	0.11 CFM	7.52	40	R40
Triple Double-Hung	48" x 72"	145" x 72"	AAMA/WDMA/CSA 101/I.S.2/A440-05	0.11 CFM	7.52	50	R50
Casement	36" x 72"	—	AAMA/WDMA/CSA 101/I.S.2/A440-08	0.01 CFM	12.11	65	R65
Casement Picture	72" x 72"	—	AAMA/WDMA/CSA 101/I.S.2/A440-05	0.01 CFM	12.12	50	R50
Awning	60" x 36"	—	AAMA/WDMA/CSA 101/I.S.2/A440-08	0.01 CFM	12.11	75	R75
Geometric	72" x 84"	—	AAMA/WDMA/CSA 101/I.S.2/A440-05	0.02 CFM	12.11	75	R75
Geometric	96" x 48"	—	AAMA/WDMA/CSA 101/I.S.2/A440-05	0.01 CFM	12.12	60	R60
Picture	72" x 84"	—	AAMA/WDMA/CSA 101/I.S.2/A440-05	0.01 CFM	12.12	55	R55
Picture	96" x 48"	—	AAMA/WDMA/CSA 101/I.S.2/A440-05	0.01 CFM	12.12	70	R70
2-Lite Slider (DP50 with T-Bolt)	72" x 60"	—	AAMA/WDMA/CSA 101/I.S.2/A440-11	0.14 CFM	7.52	50	R50
2-Lite Slider	96" x 48"	—	AAMA/WDMA/CSA 101/I.S.2/A440-05	0.15 CFM	9.20	45	R45
2-Lite Slider (DP45 with T-Bolt)	96" x 48"	—	AAMA/WDMA/CSA 101/I.S.2/A440-05	0.10 CFM	9.20	45	R45
2-Lite Slider	96" x 60"	—	AAMA/WDMA/CSA 101/I.S.2/A440-05	0.15 CFM	9.20	30	R30
3-Lite Slider (1/4-1/2-1/4)	138" x 60"	—	AAMA/WDMA/CSA 101/I.S.2/A440-05	0.08 CFM	8.36	25	R25
3-Lite Slider (1/3-1/3-1/3)	138" x 60"	—	AAMA/WDMA/CSA 101/I.S.2/A440-05	0.11 CFM	8.36	30	R30
2-Panel Patio Door with Vinyl Sill	96" x 96"	—	AAMA/WDMA/CSA 101/I.S.2/A440-05	0.11 CFM	7.52	50	R50
3-Panel Patio Door with Vinyl Sill	108" x 82"	—	AAMA/WDMA/CSA 101/I.S.2/A440-05	0.12 CFM	7.52	50	R50
3-Panel Patio Door with Vinyl Sill	108" x 96"	—	AAMA/WDMA/CSA 101/I.S.2/A440-05	0.12 CFM	7.50	50	R50
3-Panel Patio Door with Vinyl Sill*	144" x 96"	—	AAMA/WDMA/CSA 101/I.S.2/A440-05	0.12 CFM	7.50	50	R50
4-Panel Patio Door with Vinyl Sill	144" x 82"	—	AAMA/WDMA/CSA 101/I.S.2/A440-05	0.27 CFM	7.50	50	R50
4-Panel Patio Door with Vinyl Sill*	192" x 96"	—	AAMA/WDMA/CSA 101/I.S.2/A440-05	0.27 CFM	7.50	50	R50

All patio doors are available as a KD

*ONLY AVAILABLE AS KD

- ❶ Windows tested per NFRC 100. Data applies to double-paned insulating glass units using double-strength glass with an 11/16" air space, except patio door with a 3/4" air space.
- ❷ 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 patio door unit.
- ❸ Daylight Transmittance measures the performance of the glass only.
- ❹ International Standards Organization Damage Weighted Transmission Rating (Tdw-ISO) calculations

performed by Lawrence Berkeley Laboratory Windows 5.2® software and is weighted using recommended International Commission on Illumination (CIE) standards.

- ❺ Solar Heat Gain Coefficient (SHGC) tested in accordance with NFRC 200. This value varies by style, glazing system, and grids.
- ❻ Condensation Resistance is tested in accordance with NFRC 500.

