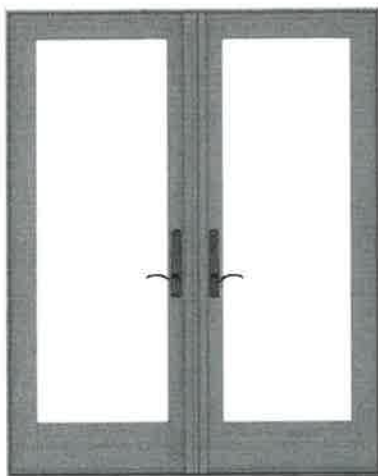



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SEP 24 2021

 VILLAGE OF DOBBS FERRY
BUILDING DEPARTMENT

A-SERIES HINGED PATIO DOOR



Interior



Exterior

Summary

Product ID#	FWHID5468
Unit Width	63 1/4"
Unit Height	79 1/2"
Interior Color	Maple
Interior Stain	Unfinished Oak
Glass	Low-E4® Glass
Hardware	Newbury®, Satin Nickel
Grille Pattern	None
Exterior Door Color	White
Exterior Trim Profile	None
Exterior Trim Color	White

 Technical
Data
for
Kitchen
Door

LOVE THE LIFE YOU SEE™

PERFORMANCE STANDARDS

The Window and Door Manufacturers Association (WDMA), the American Architectural Manufacturers Association (AAMA) and the Canadian Standards Association (CSA) jointly release the North American Fenestration Standard/Specification for Windows, Doors and Skylights (NAFS-11) where "11" refers to the most recent publication year of 2011. NAFS is also referred to as AAMA/WDMA/CSA 101/I.S.2/A440, which is how the International Code Council (ICC) lists this standard in the 2012, 2015 and 2018 International Residential Code (IRC) and International Building Code (IBC) as the means to indicate the window, door or skylights design pressure rating used to determine compliance to the jobsite design pressure requirements.

A product only achieves a "Performance Grade" or "PG" rating when it complies with all of the NAFS performance requirements such as ease of operation, air infiltration resistance, resistance to water penetration and resistance to forced entry, etc. A "Design Pressure Rating" or "DP" rating only depicts the design and structural load performance.

Performance Classes

The NAFS Standard/Specification defines requirements for four performance classes. Performance classes are designated R, LC, CW and AW. This classification system provides for several levels of performance. Product selection is always based on the performance and building code requirements of the particular project.

Elements of Performance Grade (PG) Designations

In order to qualify for a given performance grade (PG), test specimens need to pass all required performance tests for the following, in addition to all required auxiliary (durability) and applicable material/component tests (not shown here) for the applicable product type and desired performance class:

- (a) Operating force (if applicable):** Maximum operating force varies by product type and performance class.
- (b) Air leakage resistance:** Tested in accordance with ASTM E283 at a test pressure of 1.57 psf. Allowable air infiltration for R, LC and CW class designations is 0.3 cubic feet per minute per square foot of frame (cfm/ft²).
- (c) Water penetration resistance:** Tested in accordance with ASTM E547 with the specified test pressure applied per NAFS-11. Test consists of four cycles. Each cycle consists of five minutes with pressure applied and one minute with the pressure released, during which the water spray is continuously applied. Water spray shall be uniformly applied at a constant rate of 5 U.S. gal/ft² · hr.
- (d) Uniform load deflection test:** Tested in accordance with ASTM E330 for both positive and negative pressure (pressure defined by NAFS-11) with the load maintained for a period of 10 seconds. The test specimen shall be evaluated for deflection during each load for permanent damage after each load and for any effects on the normal operation of the specimen. *Starting with the 2008 version of NAFS, design pressure (DP) will only represent the "uniform load deflection test."*
- (e) Uniform load structural test:** Tested in accordance with ASTM E330 for both positive and negative pressure (pressure defined by NAFS-11) with the load maintained for a period of 10 seconds. After loads are removed, there shall be no permanent deformation in excess of 0.4% of its span and no damage to the unit which would make it inoperable.
- (f) Forced-entry resistance (if applicable):** Tested in accordance with ASTM F588 (windows), F476 (swinging doors) and F842 (sliding doors) at a performance level 10 rating.


Performance Grades (PG) & Corresponding Test Pressures (psf)

Performance Class/ Performance Grade		Air Infiltration Test Pressure		Maximum Allowable Air Infiltration/ Exfiltration Rate		Water Penetration Resistance Test Pressure		Design Pressure		Structural Test Pressure	
R	LC	Pa	psf	L/s·m ²	cfm/ft ²	Pa	psf	Pa	psf	Pa	psf
15	-	75	1.57	1.5	0.30	140	2.92	720	15.04	1080	22.56
20	-	75	1.57	1.5	0.30	150	3.13	960	20.05	1440	30.08
25	25	75	1.57	1.5	0.30	180	3.76	1200	25.06	1800	37.59
30	30	75	1.57	1.5	0.30	220	4.59	1440	30.08	2160	45.11
35	35	75	1.57	1.5	0.30	260	5.43	1680	35.09	2520	52.63
40	40	75	1.57	1.5	0.30	290	6.06	1920	40.10	2880	60.15
45	45	75	1.57	1.5	0.30	330	6.89	2160	45.11	3240	67.67
50	50	75	1.57	1.5	0.30	360	7.52	2400	50.13	3600	75.19
55	55	75	1.57	1.5	0.30	400	8.35	2640	55.14	3960	82.71
60	60	75	1.57	1.5	0.30	440	9.19	2880	60.15	4320	90.23
65	65	75	1.57	1.5	0.30	470	9.82	3120	65.16	4680	97.74
70	70	75	1.57	1.5	0.30	510	10.65	3360	70.18	5040	105.26
75	75	75	1.57	1.5	0.30	540	11.28	3600	75.19	5400	112.78
80	80	75	1.57	1.5	0.30	580	12.11	3840	80.20	5760	120.30
85	85	75	1.57	1.5	0.30	580	12.11	4080	85.21	6120	127.82
90	90	75	1.57	1.5	0.30	580	12.11	4320	90.23	6480	135.34
95	95	75	1.57	1.5	0.30	580	12.11	4560	95.24	6840	142.86
100	100	75	1.57	1.5	0.30	580	12.11	4800	100.25	7200	150.38

HALLMARK CERTIFICATION

The Window and Door Manufacturers Association (WDMA)-sponsored Hallmark Certification Program provides manufacturers with certification to the AAMA/WDMA/CSA 101/I.S.2/A440-11 Standard and is designed to provide builders, architects, specifiers and consumers with an easily recognizable means of identifying products that have been manufactured and tested in accordance with NAFS (AAMA/WDMA/CSA 101/I.S.2/A440) industry standards and other applicable performance standards. Conformance is determined by periodic in-plant inspections by a third-party administrator. Inspections include auditing licensee quality control procedures and processes and a review to confirm products are manufactured in accordance with the appropriate performance standards. Periodic testing of representative product constructions and components by an independent testing laboratory is also required. When all of the program requirements are met, the licensee is authorized to use the WDMA Hallmark registered logo on their certification label as a means of identifying products and their performance ratings.

Products successfully obtaining Hallmark Certification will be labeled with a three-part code, which includes performance class, performance grade and size tested. In addition to this mandatory requirement, you are allowed to list the design pressure on a separate line.

	Andersen Corporation A-Series Casement Window with Stormwatch® Protection Manufacturer stipulates certification as indicated below.	
	STANDARD	RATING
	AAMA/WDMA/CSA 101/I.S.2/A440-11	CLASS LC ⁽¹⁾ - PG70 ⁽²⁾ - Size Tested 35.3 x 71.3 in. ⁽³⁾ DP+70/-70 ⁽⁴⁾
	AAMA/WDMA/CSA 101/I.S.2/A440-08	CLASS LC ⁽¹⁾ - PG70 ⁽²⁾ - Size Tested 35.3 x 71.3 in. ⁽³⁾ DP+70/-70 ⁽⁴⁾

- (1) - Performance Class
- (2) - Performance Grade
- (3) - Size Tested
- (4) - Design Pressure

In the example above, the performance class is LC, the performance grade (PG) is 70 pounds per square foot (psf) and the size tested is 35.3" x 71.3". What this means to the specifier is, based on the performance grade chart, the laboratory-tested air infiltration was less than 0.3 cfm/ft² (test pressure is always 1.57 psf and the allowable airflow is 0.3 cfm/ft²), the product tested successfully resisted a laboratory water penetration test at a test pressure of 10.65 psf, the product tested successfully withstood a laboratory positive test pressure of 105 psf and a laboratory negative test pressure of 105 psf and the product tested passed the laboratory requirements for operational force and forced-entry resistance. Based on this test, all products of the same design that are smaller than the tested size can be labeled with this product performance rating.

IMPORTANT

Building codes prescribe design pressure based on a variety of criteria (i.e. windspeed zone, building height, building type, jobsite exposure, etc.). Design pressures derived from Performance Grade (PG) test requirements should be used to determine compliance to building code required design pressures. Structural test pressures, which are tested at 1.5 times the design pressure, should not be used for determining design pressure code compliance. In the example above, a PG 70 performance grade rating, which passes a 70 psf design pressure, should be used for determining code compliance, not the structural test pressure of 105 psf.

If you need further details about how Andersen® products perform to this standard, contact your Andersen supplier.

If you need further information about the AAMA/WDMA/CSA 101/I.S.2/A440-11 standard or the Hallmark Certification Program, please contact: WDMA, 330 N. Wabash Avenue Suite 2000, Chicago, IL 60611 Phone: 312-673-4828 Web: wdma.com

Where designated, Andersen products are tested, certified and labeled to the requirements of the Hallmark Certification Program. Actual performance may vary based on variations in manufacturing, shipping, installation, environmental conditions and conditions of use.

Performance Grade, Air Infiltration and Sound Transmission Ratings

A-Series Windows — Low-E4® Impact-Resistant Glass Types

For current performance information, please visit andersenwindows.com.

Andersen® Product	AAMA/WDMA/CSA 101/IS2/A440 Performance Grade (PG)	+/- Corresponding Design Pressure (DP)	TAS 201, 202, 203	Standard Glass Sound Transmission Class (STC)	Standard Glass Outdoor/Indoor Transmission Class (OITC)	Air Infiltration CFM/FT²
Casement (up to 3060)	Class LC-PG70 Size Tested 35.3" x 71.3"	70/70	70/70	33	24	<0.2
Casement (greater than 3060 but less than or equal to 3680, 31074 & 4068)	Class LC-PG50 Size Tested 47.3" x 79.3" Class LC-PG50 Size Tested 45.3" x 87.3" Class LC-PG50 Size Tested 41.3" x 95.3"	50/50	50/50	33	24	<0.2
Awning (up to 4040, 4430 & 5028)	Class LC-PG70 Size Tested 47.3" x 47.3" Class LC-PG70 Size Tested 51.3" x 35.3" Class LC-PG70 Size Tested 59.3" x 31.3"	70/70	70/70	33	30	<0.2
Awning (greater than 4040, 4430 & 5028 but less than or equal to 6040)	Class LC-PG50 Size Tested 71.3" x 47.3"	50/50	50/50	33	30	<0.2
Double-Hung	Class LC-PG70 Size Tested 47.3" x 95.3"	70/70	70/70	32	29	<0.2
Picture	Class LC-PG70 Size Tested 71.3" x 79.3"	70/70	70/70	34	31	<0.2
Picture	Class LC-PG65 Size Tested 71.3" x 95.3"	65/65	65/65	34	31	<0.2
Fixed Transom	Class R-PG70 Size Tested 55.3" x 55.3" Class R-PG70 Size Tested 95.3" x 39.3"	70/70	70/70	33	29	<0.2
Verting Transom	Class R-PG70 Size Tested 59.3" x 31.3"	70/70	70/70	33	29	<0.2
Direct-Set Specialty						
Springline™ (up to 50 sq. ft.)	Class LC-PG70 Size Tested 60" x 120"	70/80	70/80	37	31	<0.2
Springline (up to 36 sq. ft.)	Class LC-PG70 Size Tested 54" x 96"	70/70	70/70	36	31	<0.2
Springline (up to 15 sq. ft.)	Class LC-PG70 Size Tested 36" x 60"	70/70	70/70	35	30	<0.2
Arch (up to 50 sq. ft.)	Class LC-PG70 Size Tested 60" x 120"	70/80	70/80	37	31	<0.2
Arch (up to 36 sq. ft.)	Class LC-PG70 Size Tested 54" x 96"	70/70	70/70	36	31	<0.2
Arch (up to 15 sq. ft.)	Class LC-PG70 Size Tested 36" x 60"	70/70	70/70	35	30	<0.2
Sash-Set Specialty						
Springline™ (up to 50 sq. ft.)	Class LC-PG70 Size Tested 60" x 120"	70/80	70/80	37	34	<0.2
Springline (up to 36 sq. ft.)	Class LC-PG70 Size Tested 54" x 96"	70/70	70/70	37	34	<0.2
Springline (up to 15 sq. ft.)	Class LC-PG70 Size Tested 36" x 96"	70/70	70/70	36	32	<0.2
Arch (up to 50 sq. ft.)	Class LC-PG70 Size Tested 60" x 120"	70/80	70/80	37	34	<0.2
Arch (up to 36 sq. ft.)	Class LC-PG70 Size Tested 54" x 96"	70/70	70/70	37	34	<0.2
Arch (up to 15 sq. ft.)	Class LC-PG70 Size Tested 36" x 96"	70/70	70/70	36	32	<0.2

For a listing of helpful links related to performance, test reports and regulations, visit andersenwindows.com/coastalperformance.

- * "Performance Grade (PG)" ratings may vary from tested performance rating for larger or smaller units of a particular type.
- * "Sound Transmission Class (STC)" & "Outdoor/Indoor Transmission Class (OITC)" ratings are for individual units based on independent tests and represent entire unit. Higher STC/OITC values may be available with other glazings.
- * This data is accurate as of October 2019. Due to ongoing product changes, updated test results or new industry standards, this data may change over time.
- * Where designated, Andersen products are certified and labeled to the requirements of the Hallmark Certification Program. Actual performance may vary based on variations in manufacturing, shipping, installation, environmental conditions and conditions of use.
- * Contact your Andersen supplier or go to andersenwindows.com for more information.
- * All impact resistant glass units, except sidelight transom, tested to Large Missile D, Wind Zone 4 and High Velocity Hurricane Zone (HVHZ) requirements of Florida.

Performance Grade, Air Infiltration and Sound Transmission Ratings

A-Series Patio Doors with Performance Grade (PG) Upgrades — Low-E4® Impact-Resistant Glass Types

For current performance information, please visit andersenwindows.com.

Andersen® Product	AAMA/WDMA/CSA 101/IS2/A440 Performance Grade (PG)	+/- Corresponding Design Pressure (DP)	TAS 201, 202, 203	Standard Glass Sound Transmission Class (STC)	Standard Glass Outdoor/Indoor Transmission Class (OITC)	Air Infiltration CFM/FT²
Frenchwood® Gliding Patio Door						
Single, Stationary (80)	Class LC-PG65 Size Tested 50.4" x 95.5"	65/80	65/70	36	31	< 0.2
Two-Panel (611)	Class LC-PG70 Size Tested 95.3" x 82.5"	70/80	70/80	31	29	< 0.2
Two-Panel (80)	Class LC-PG70 Size Tested 95.3" x 95.5"	70/70	70/70	31	29	< 0.2
Three-Panel (611)	Class LC-PG65 Size Tested 141.0" x 82.5"	65/70	65/70	†	†	< 0.2
Three-Panel (80)	Class LC-PG50 Size Tested 141.0" x 95.5"	50/50	50/50	†	†	< 0.2
Four-Panel (611)	Class LC-PG65 Size Tested 189.0" x 82.4"	65/70	65/70	†	†	< 0.2
Four-Panel (80)	Class LC-PG50 Size Tested 189.0" x 95.5"	50/50	50/50	†	†	< 0.2
Frenchwood® Hinged Inswing Patio Door						
Single, Stationary (611)	Class LC-PG65 Size Tested 38.0" x 82.5"	65/80	65/80	34	30	< 0.2
Single, Stationary (80)	Class LC-PG65 Size Tested 38.0" x 95.5"	65/70	65/70	34	30	< 0.2
Single, Active (611)	Class LC-PG65 Size Tested 38.0" x 82.5"	65/80	65/80	34	30	< 0.2
Single, Active (80)	Class LC-PG65 Size Tested 38.0" x 95.5"	65/70	65/70	34	30	< 0.2
Two-Panel, AP/PA (611)	Class LC-PG65 Size Tested 75.3" x 82.5"	65/80	65/80	33	30	< 0.2
Two-Panel, AP/PA (80)	Class LC-PG65 Size Tested 75.3" x 95.5"	65/70	65/70	33	30	< 0.2
Two-Panel, AS/SA/SS (611)	Class LC-PG65 Size Tested 75.3" x 82.5"	65/80	—	33	30	< 0.2
Two-Panel, AS/SA/SS (80)	Class LC-PG65 Size Tested 75.3" x 95.5"	65/70	—	33	30	< 0.2
Frenchwood® Hinged Outswing Patio Door						
Single, Stationary (611, 80)	Class LC-PG65 Size Tested 38.0" x 95.5"	65/80	65/80	35	30	< 0.2
Single, Active (611)	Class R-PG65 Size Tested 38.0" x 82.5"	65/80	65/80	35	30	< 0.2
Single, Active (80)	Class R-PG65 Size Tested 38.0" x 95.3"	65/70	65/70	35	30	< 0.2
Two-Panel (611)	Class LC-PG65 Size Tested 75.3" x 82.5"	65/80	65/80	34	30	< 0.2
Two-Panel (80)	Class LC-PG65 Size Tested 75.3" x 95.5"	65/70	65/70	34	30	< 0.2
Frenchwood® Patio Door Sidelights & Transoms						
Transom	Class LC-PG70 Size Tested 112.0" x 27.0"	70/80	70/80	†	†	< 0.2
Sidelight Transom	Class LC-PG70 Size Tested 18.0" x 27.0"	70/80	70/80	†	†	< 0.2
Sidelight (611, 80)	Class LC-PG70 Size Tested 18.0" x 95.5"	70/80	70/80	†	†	< 0.2

For a listing of helpful links related to performance, test reports and regulations, visit andersenwindows.com/coastalperformance.

- * "Performance Grade (PG)" ratings may vary from tested performance rating for larger or smaller units of a particular type.
- * "Sound Transmission Class (STC)" & "Outdoor/Indoor Transmission Class (OITC)" ratings are for individual units based on independent tests and represent entire unit. Higher STC/OITC values may be available with other glazings.
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- * Contact your Andersen supplier or go to andersenwindows.com for more information.
- * All impact resistant glass units, except sidelight transom, tested to Large Missile D, Wind Zone 4 and High Velocity Hurricane Zone (HVHZ) requirements of Florida.
- † Data not available.

Performance Grade, Air Infiltration and Sound Transmission Ratings
A-Series Patio Doors with Performance Grade (PG) Upgrades — Monolithic Impact-Resistant Glass Types

For current performance information, please visit andersenwindows.com.

Andersen® Product	AAMA/WDMA/CSA 101/IS2/A440 Performance Grade (PG)	+/- Corresponding Design Pressure (DP)	TAS 201, 202, 203	Standard Glass Sound Transmission Class (STC)	Standard Glass Outdoor/Indoor Transmission Class (OITC)	Air Infiltration CFM/FT²
Frenchwood® Gliding Patio Door						
Single, Stationary (611, 80)	—	—	65/80	—	—	≤ 0.2
Two-Panel (611)	—	—	70/80	—	—	< 0.2
Two-Panel (80)	—	—	70/70	—	—	< 0.2
Three-Panel (611)	—	—	65/70	—	—	< 0.2
Three-Panel (80)	—	—	50/50	—	—	< 0.2
Four-Panel (611)	—	—	65/70	—	—	< 0.2
Four-Panel (80)	—	—	50/50	—	—	≤ 0.2
Frenchwood® Hinged Inswing Patio Door						
Single, Stationary (611)	—	—	65/80	—	—	≤ 0.2
Single, Stationary (80)	—	—	65/70	—	—	≤ 0.2
Single, Active (611)	—	—	65/80	—	—	≤ 0.2
Single, Active (80)	—	—	65/70	—	—	< 0.2
Two-Panel, AP/PA (611)	—	—	65/80	—	—	< 0.2
Two-Panel, AP/PA (80)	—	—	65/70	—	—	< 0.2
Two-Panel, AS/SA/SS (611)	—	—	—	—	—	—
Two-Panel, AS/SA/SS (80)	—	—	—	—	—	—
Frenchwood® Hinged Outswing Patio Door						
Single, Stationary (611, 80)	—	—	65/80	—	—	≤ 0.2
Single, Active (611)	—	—	65/80	—	—	≤ 0.2
Single, Active (80)	—	—	65/70	—	—	< 0.2
Two-Panel (611)	—	—	65/80	—	—	< 0.2
Two-Panel (80)	—	—	65/70	—	—	< 0.2
Frenchwood® Patio Door Sidelights & Transoms						
Transom	—	—	70/80	—	—	≤ 0.2
Sidelight Transom	—	—	70/80	—	—	< 0.2
Sidelight (611, 80)	—	—	70/80	—	—	≤ 0.2

For a listing of helpful links related to performance, test reports and regulations, visit andersenwindows.com/coastalperformance.

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- "Sound Transmission Class (STC)" & "Outdoor/Indoor Transmission Class (OITC)" ratings are for individual units based on independent tests and represent entire unit. Higher STC/OITC values may be available with other glazings.
- This data is accurate as of October 2019. Due to ongoing product changes, updated test results or new industry standards, this data may change over time.
- Where designated, Andersen products are certified and labeled to the requirements of the Hallmark Certification Program. Actual performance may vary based on variations in manufacturing, shipping, installation, environmental conditions and conditions of use.
- Contact your Andersen supplier or go to andersenwindows.com for more information.
- All impact resistant glass units, except sidelight transom, tested to Large Missile D, Wind Zone 4 and High Velocity Hurricane Zone (HVHZ) requirements of Florida.

Center of Glass Performance Data — Low-E4® Impact-Resistant Glass

For current performance information, please visit andersenwindows.com.

Andersen® Product	VT ¹	SC ²	SHGC ³	RHG ⁴	Fading		%RH @ center ⁷	IGST ⁸
A-Series Windows								
Casement	70%	0.47	0.41	98	< 1%	23%	59%	55°F
Awning	70%	0.47	0.41	98	< 1%	23%	59%	55°F
Double-Hung	70%	0.47	0.41	98	< 1%	23%	59%	55°F
Stationary Transom	70%	0.47	0.41	97	< 1%	21%	57%	54°F
Venting Transom	70%	0.47	0.41	98	< 1%	23%	59%	55°F
Picture	70%	0.47	0.41	97	< 1%	21%	57%	54°F
Specialty	70%	0.47	0.41	97	< 1%	21%	57%	54°F
A-Series Frenchwood® Patio Doors, Patio Door Transoms & Sidelights and Venting Transom Windows								
Gliding	70%	0.47	0.41	97	< 1%	21%	57%	54°F
Hinged Inswing	70%	0.47	0.41	97	< 1%	21%	57%	54°F
Hinged Outswing	70%	0.47	0.41	97	< 1%	21%	57%	54°F
Transom	69%	0.46	0.40	97	< 1%	17%	57%	54°F
Sidelight	70%	0.47	0.41	98	< 1%	21%	57%	54°F
Venting Transom	70%	0.47	0.41	98	< 1%	21%	57%	54°F

Center of Glass Performance Data — Low-E4® SmartSun™ Impact-Resistant Glass

For current performance information, please visit andersenwindows.com.

Andersen® Product	VT ¹	SC ²	SHGC ³	RHG ⁴	Fading		%RH @ center ⁷	IGST ⁸
A-Series Windows								
Casement	63%	0.32	0.28	67	< 1%	17%	59%	55°F
Awning	63%	0.32	0.28	67	< 1%	17%	59%	55°F
Double-Hung	63%	0.32	0.28	67	< 1%	17%	59%	55°F
Stationary Transom	63%	0.32	0.28	67	< 1%	16%	57%	54°F
Venting Transom	63%	0.32	0.28	67	< 1%	17%	59%	55°F
Picture	63%	0.32	0.28	67	< 1%	16%	57%	54°F
Specialty	63%	0.32	0.28	67	< 1%	16%	57%	54°F
A-Series Frenchwood® Patio Doors, Patio Door Transoms & Sidelights and Venting Transom Windows								
Gliding	63%	0.32	0.28	67	< 1%	16%	57%	54°F
Hinged Inswing	63%	0.32	0.28	67	< 1%	16%	57%	54°F
Hinged Outswing	63%	0.32	0.28	67	< 1%	16%	57%	54°F
Transom	63%	0.32	0.28	67	< 1%	14%	59%	55°F
Sidelight	63%	0.32	0.27	67	< 1%	16%	57%	54°F
Venting Transom	63%	0.32	0.27	67	< 1%	16%	57%	54°F

For a listing of helpful links related to performance, test reports and regulations, visit andersenwindows.com/coastalperformance.

* "Low-E4™", "Low-E4® SmartSun™" and "Low-E4® Sun" are Andersen trademarks for "Low-E" glass.
 * Based on NFRC testing/simulation conditions using Windows v7.3.4.0 and NFRC validated spectral data. 0°F outside temperature, 70°F inside temperature and a 15 mph wind.
 1) Visible Transmittance (VT) measures how much light comes through the glass. The higher the value, from 0 to 1, the more daylight the glass lets in. Visible Transmittance is measured over the 380 to 760 nanometer portion of the solar spectrum. 2) Shading Coefficient defines the amount of heat gain through the glass compared to a single lite of clear 1/4" (3 mm) glass. 3) Solar Heat Gain Coefficient (SHGC) defines the fraction of solar radiation admitted through the glass both directly transmitted and absorbed and subsequently released inward. The lower the value, the less heat is transmitted through the glass. 4) Relative Heat Gain is the amount of heat gain through a glazing incorporating U-Factor and Solar Heat Gain Coefficient. 5) Transmission Ultra-Violet Energy (TUV). The transmission of short-wave energy in the 300-380 nanometer portion of the solar spectrum. The energy can cause fabric fading. 6) Transmission Damage Function (TDW). The transmission of UV and visible light energy in the 300-600 nanometer portion of the solar spectrum. The value includes both the UV and visible light energy that can cause fabric fading. This rating has also been referred to as the Krockmann Damage Function. This rating better predicts fading potential than UV transmission alone. The lower the Damage Function rating, the less transmission of short-wave energy through the glass that can potentially cause fabric fading. Fabric type is also a key component of fading potential. 7) Percent relative humidity before condensation occurs at the center of glass, taken using center of glass temperature. 8) Inside glass surface temperatures are taken at the center of glass.
 * This data is accurate as of October 2019. Due to ongoing product changes, updated test results or new industry standards, this data may change over time. Contact your Andersen supplier for current performance information or upgrade options.
 * Contact your Andersen supplier or visit andersenwindows.com/nfrc for center of glass performance data on windows with laminated glass, patterned glass, tempered glass and products ordered with capillary breather tubes.

Center of Glass Performance Data — Low-E4[®] Sun Impact-Resistant Glass

For current performance information, please visit andersenwindows.com.

Anderson® Product	VT¹	SC²	SHGC³	RHG⁴	Fading		%RH @ center⁷	IGST⁸
					Tuv⁵	Tdw⁶		
A-Series Windows								
Casement	38%	0.29	0.25	62	< 1%	14%	57%	54°F
Awning	38%	0.29	0.25	62	< 1%	14%	57%	54°F
Double-Hung	38%	0.29	0.25	62	< 1%	14%	57%	54°F
Stationary Transom	38%	0.29	0.25	62	< 1%	13%	57%	54°F
Venting Transom	38%	0.29	0.25	62	< 1%	14%	57%	54°F
Picture	38%	0.29	0.25	62	< 1%	13%	57%	54°F
Specialty	38%	0.29	0.25	62	< 1%	13%	57%	54°F
A-Series Frenchwood® Patio Doors, Patio Door Transoms & Sidelights and Venting Transom Windows								
Gliding	38%	0.29	0.25	62	< 1%	13%	57%	54°F
Hinged Inswing	38%	0.29	0.25	62	< 1%	13%	57%	54°F
Hinged Outswing	38%	0.29	0.25	62	< 1%	13%	57%	54°F
Transom	38%	0.29	0.25	62	< 1%	11%	57%	54°F
Sidelight	39%	0.29	0.26	63	< 1%	13%	57%	54°F
Venting Transom	39%	0.29	0.26	63	< 1%	13%	57%	54°F

Center of Glass Performance Data — Clear Monolithic SmartSun[™] Impact-Resistant Glass

For current performance information, please visit andersenwindows.com.

Andersen® Product	VT ¹	SC ²	SHGC ³	RHG ⁴	Fading		%RH @ center ⁷	IGST ⁸
					Tuv ⁵	Tdw ⁶		
A-Series Frenchwood® Patio Doors, Patio Door Transoms & Sidelights and Venting Transom Windows								
Gilding	84%	0.82	0.71	176	< 1%	29%	7%	20°F
Hinged Inswing	84%	0.82	0.71	176	< 1%	29%	7%	20°F
Hinged Outswing	84%	0.82	0.71	176	< 1%	29%	7%	20°F
Transom	84%	0.82	0.71	176	< 1%	29%	7%	20°F
Sidelight	84%	0.82	0.71	176	< 1%	29%	7%	20°F

Center of Glass Performance Data — Gray Monolithic SmartSun[™] Impact-Resistant Glass

For current performance information, please visit andersenwindows.com.

Andersen® Product	VT¹	SC²	SHGC³	RHG⁴	Fading		%RH @ center⁷	IGST⁸
					Tuv⁵	Tdw⁶		
A-Series Frenchwood® Patio Doors, Patio Door Transoms & Sidelights and Venting Transom Windows								
Gliding	43%	0.67	0.58	146	< 1%	16%	7%	20°F
Hinged Inswing	43%	0.67	0.58	146	< 1%	16%	7%	20°F
Hinged Outswing	43%	0.67	0.58	146	< 1%	16%	7%	20°F
Transom	43%	0.67	0.58	146	< 1%	16%	7%	20°F
Sidelight	43%	0.67	0.58	146	< 1%	16%	7%	20°F

For a listing of helpful links related to performance, test reports and regulations, visit andersenwindows.com/coastalperformance.

* "Low-E4[™]", "Low-E4[®] SmartSun[™]" and "Low-E4[®] Sun" are Andersen trademarks for "Low-E" glass.

* Based on NFRC testing/simulation conditions using Windows v7.3.4.0 and NFRC validated spectral data. 0°F outside temperature, 70°F inside temperature and a 15 mph wind.

1) Visible Transmittance (VT) measures how much light comes through the glass. The higher the value, from 0 to 1, the more daylight the glass lets in. Visible Transmittance is measured over the 380 to 760 nanometer portion of the solar spectrum. 2) Shading Coefficient (SC) defines the amount of heat gain through the glass compared to a single lite of clear 1/8" (3 mm) glass. The lower the value, the less heat is transmitted through the glass. 3) Solar Heat Gain Coefficient (SHGC) defines the fraction of solar radiation admitted through the glass both directly transmitted and absorbed and subsequently released inward. The lower the value, the less heat is transmitted through the glass. 4) Relative Heat Gain is the amount of heat gain through a glazing incorporating U-Factor and Solar Heat Gain Coefficient. 5) Transmission Ultra-Violet Energy (TUV). The transmission of short-wave energy in the 300-380 nanometer portion of the solar spectrum. The energy can cause fabric fading. 6) Transmission Damage Function (TDW). The transmission of UV and visible light energy in the 300-600 nanometer portion of the solar spectrum. The value includes both the UV and visible light energy that can cause fabric fading. This rating has also been referred to as the Krochmann Damage Function. This rating better predicts fading potential than UV transmission alone. The lower the Damage Function rating, the less transmission of short-wave energy through the glass that can potentially cause fabric fading. Fabric type is also a key component of fading potential. 7) Percent relative humidity before condensation occurs at the center of glass, taken using center of glass temperature. 8) Inside glass surface temperatures are taken at the center of glass.

* This data is accurate as of October 2019. Due to ongoing product changes, updated test results or new industry standards, this data may change over time. Contact your Andersen supplier for current performance information or upgrade options.

* Contact your Andersen supplier or visit andersenwindows.com/nfrc for center of glass performance data on windows with laminated glass, patterned glass, tempered glass and products ordered with capillary breather tubes.

PRODUCT PERFORMANCE



Andersen® NFRC Certified Total Unit Performance

For current performance information, please visit andersenwindows.com.

Andersen® Product	Impact-Resistant Glass Type		U-Factor ¹	SHGC ²	VT ³
A-Series Casement Windows AND-N-86	Low-E4*	Without Grilles	0.29	0.26	0.45
		Simulated Divided Light Grilles	0.29	0.24	0.40
		Finelight™ Light Grilles	0.30	0.24	0.40
		Full Divided Light Grilles	0.30	0.24	0.40
	Low-E4 w/HeatLock®	Without Grilles	0.26	0.25	0.44
		Simulated Divided Light Grilles	0.26	0.23	0.39
		Finelight Light Grilles	0.26	0.23	0.39
		Full Divided Light Grilles	0.27	0.23	0.39
	Low-E4 Sun	Without Grilles	0.29	0.16	0.24
		Simulated Divided Light Grilles	0.29	0.15	0.22
		Finelight Light Grilles	0.30	0.15	0.22
		Full Divided Light Grilles	0.30	0.15	0.22
	Low-E4 SmartSun™	Without Grilles	0.28	0.18	0.40
		Simulated Divided Light Grilles	0.28	0.16	0.36
		Finelight Light Grilles	0.29	0.16	0.36
		Full Divided Light Grilles	0.29	0.16	0.36
	Low-E4 SmartSun w/HeatLock	Without Grilles	0.25	0.17	0.39
		Simulated Divided Light Grilles	0.25	0.16	0.35
		Finelight Light Grilles	0.26	0.16	0.35
		Full Divided Light Grilles	0.27	0.16	0.35
A-Series Awning Windows AND-N-87	Low-E4*	Without Grilles	0.29	0.26	0.43
		Simulated Divided Light Grilles	0.29	0.23	0.39
		Finelight™ Light Grilles	0.30	0.23	0.39
		Full Divided Light Grilles	0.30	0.23	0.39
	Low-E4 w/HeatLock®	Without Grilles	0.26	0.25	0.42
		Simulated Divided Light Grilles	0.26	0.23	0.38
		Finelight Light Grilles	0.26	0.23	0.38
		Full Divided Light Grilles	0.27	0.23	0.38
	Low-E4 Sun	Without Grilles	0.29	0.16	0.24
		Simulated Divided Light Grilles	0.29	0.15	0.21
		Finelight Light Grilles	0.30	0.15	0.21
		Full Divided Light Grilles	0.30	0.15	0.21
	Low-E4 SmartSun™	Without Grilles	0.29	0.18	0.39
		Simulated Divided Light Grilles	0.29	0.16	0.35
		Finelight Light Grilles	0.29	0.16	0.35
		Full Divided Light Grilles	0.29	0.16	0.35
	Low-E4 SmartSun w/HeatLock	Without Grilles	0.26	0.17	0.38
		Simulated Divided Light Grilles	0.26	0.16	0.34
		Finelight Light Grilles	0.26	0.16	0.34
		Full Divided Light Grilles	0.27	0.16	0.34
A-Series Double-Hung Windows AND-N-91	Low-E4*	Without Grilles	0.31	0.30	0.51
		Simulated Divided Light Grilles	0.31	0.27	0.45
		Finelight™ Light Grilles	0.31	0.27	0.45
		Full Divided Light Grilles	0.31	0.27	0.45
	Low-E4 w/HeatLock®	Without Grilles	0.27	0.29	0.50
		Simulated Divided Light Grilles	0.27	0.26	0.44
		Finelight Light Grilles	0.27	0.26	0.44
		Full Divided Light Grilles	0.29	0.26	0.44
	Low-E4 Sun	Without Grilles	0.31	0.19	0.28
		Simulated Divided Light Grilles	0.31	0.17	0.25
		Finelight Light Grilles	0.32	0.17	0.25
		Full Divided Light Grilles	0.32	0.17	0.25
	Low-E4 SmartSun™	Without Grilles	0.30	0.20	0.46
		Simulated Divided Light Grilles	0.30	0.18	0.41
		Finelight Light Grilles	0.31	0.18	0.41
		Full Divided Light Grilles	0.31	0.18	0.41
	Low-E4 SmartSun w/HeatLock	Without Grilles	0.26	0.20	0.45
		Simulated Divided Light Grilles	0.26	0.18	0.40
		Finelight Light Grilles	0.27	0.18	0.40
		Full Divided Light Grilles	0.28	0.18	0.40

Andersen® Product	Impact-Resistant Glass Type		U-Factor ¹	SHGC ²	VT ³	
A-Series Picture Windows AND-N-88	IMPACT-RESISTANT GLASS	Low-E4*	Without Grilles	0.29	0.31	0.53
			Simulated Divided Light Grilles	0.29	0.28	0.47
			Finelight™ Light Grilles	0.30	0.28	0.47
			Full Divided Light Grilles	0.30	0.28	0.47
		Low-E4 w/HeatLock*	Without Grilles	0.25	0.30	0.52
			Simulated Divided Light Grilles	0.25	0.27	0.46
			Finelight Light Grilles	0.26	0.27	0.46
			Full Divided Light Grilles	0.27	0.27	0.46
		Low-E4 Sun	Without Grilles	0.30	0.19	0.29
			Simulated Divided Light Grilles	0.30	0.17	0.26
			Finelight Light Grilles	0.31	0.17	0.26
			Full Divided Light Grilles	0.31	0.17	0.26
		Low-E4 SmartSun™	Without Grilles	0.29	0.21	0.48
			Simulated Divided Light Grilles	0.29	0.19	0.42
			Finelight Light Grilles	0.30	0.19	0.42
			Full Divided Light Grilles	0.30	0.19	0.42
		Low-E4 SmartSun w/HeatLock	Without Grilles	0.25	0.21	0.47
			Simulated Divided Light Grilles	0.25	0.19	0.42
			Finelight Light Grilles	0.26	0.19	0.42
			Full Divided Light Grilles	0.27	0.19	0.42
A-Series Fixed Transom Windows AND-N-89	IMPACT-RESISTANT GLASS	Low-E4*	Without Grilles	0.29	0.31	0.54
			Simulated Divided Light Grilles	0.29	0.28	0.48
			Finelight™ Light Grilles	0.30	0.28	0.48
			Full Divided Light Grilles	0.30	0.28	0.48
		Low-E4 w/HeatLock*	Without Grilles	0.25	0.30	0.53
			Simulated Divided Light Grilles	0.25	0.27	0.47
			Finelight Light Grilles	0.26	0.27	0.47
			Full Divided Light Grilles	0.27	0.27	0.47
		Low-E4 Sun	Without Grilles	0.30	0.20	0.29
			Simulated Divided Light Grilles	0.30	0.18	0.26
			Finelight Light Grilles	0.31	0.18	0.26
			Full Divided Light Grilles	0.31	0.18	0.26
		Low-E4 SmartSun™	Without Grilles	0.29	0.21	0.48
			Simulated Divided Light Grilles	0.29	0.19	0.43
			Finelight Light Grilles	0.30	0.19	0.43
			Full Divided Light Grilles	0.30	0.19	0.43
		Low-E4 SmartSun w/HeatLock	Without Grilles	0.25	0.21	0.47
			Simulated Divided Light Grilles	0.25	0.19	0.42
			Finelight Light Grilles	0.26	0.19	0.42
			Full Divided Light Grilles	0.27	0.19	0.42
A-Series Venting Transom Windows AND-N-90	IMPACT-RESISTANT GLASS	Low-E4*	Without Grilles	0.29	0.27	0.45
			Simulated Divided Light Grilles	0.29	0.24	0.41
			Finelight™ Light Grilles	0.30	0.24	0.41
			Full Divided Light Grilles	0.30	0.24	0.41
		Low-E4 w/HeatLock*	Without Grilles	0.26	0.26	0.44
			Simulated Divided Light Grilles	0.26	0.24	0.40
			Finelight Light Grilles	0.26	0.24	0.40
			Full Divided Light Grilles	0.27	0.24	0.40
		Low-E4 Sun	Without Grilles	0.30	0.17	0.25
			Simulated Divided Light Grilles	0.30	0.15	0.22
			Finelight Light Grilles	0.30	0.15	0.22
			Full Divided Light Grilles	0.30	0.15	0.22
		Low-E4 SmartSun™	Without Grilles	0.29	0.18	0.41
			Simulated Divided Light Grilles	0.29	0.17	0.37
			Finelight Light Grilles	0.29	0.17	0.37
			Full Divided Light Grilles	0.29	0.17	0.37
		Low-E4 SmartSun w/HeatLock	Without Grilles	0.26	0.18	0.40
			Simulated Divided Light Grilles	0.26	0.16	0.36
			Finelight Light Grilles	0.26	0.16	0.36
			Full Divided Light Grilles	0.27	0.16	0.36

continued on next page

For a listing of helpful links related to performance, test reports and regulations, visit andersenwindows.com/coastalperformance.

*Low-E4™, Low-E4 SmartSun™, Low-E4 Sun™ and HeatLock™ are Andersen trademarks for Low-E glass.

1) U-Factor defines the amount of heat loss through the total unit in BTU/hr/ft². °F. The lower the value, the less heat is lost through the entire product. Window values represent non-tempered glass. Use of tempered glass can increase U-Factor ratings. See andersenwindows.com/nfrc for specific performance values. Door values represent tempered glass. 2) Solar Heat Gain Coefficient (SHGC) defines the fraction of solar radiation admitted through the glass both directly transmitted and absorbed and subsequently released inward. The lower the value, the less heat is transmitted through the product. 3) Visible Transmittance (VT) measures how much light comes through a product (glass and frame). The higher the value, from 0 to 1, the more daylight the product lets in over the product's total unit area. Visible Transmittance is measured over the 380 to 760 nanometer portion of the solar spectrum.

* NFRC ratings are based on modeling by a third-party agency as validated by an independent test lab in compliance with NFRC program and procedural requirements.

* This data is accurate as of October 2019. Due to ongoing product changes, updated test results or new industry standards or requirements, this data may change over time. Ratings are for sizes specified by NFRC for testing and certification. Ratings may vary depending on unit size, use of tempered glass, different grille options, glass for high altitudes, etc.

* Values are for single units with given pane thickness and 3/4" (19mm) grilles for windows and 1" (25mm) grilles for door products.

Andersen® NFRC Certified Total Unit Performance (continued)
For current performance information, please visit andersenwindows.com.

Andersen® Product	Impact-Resistant Glass Type		U-Factor¹	SHGC²	VT³			
A-Series Direct-Set Specialty Windows (> 36 sq. ft. to 50 sq. ft. or 3.34 m² to 4.65 m²) AND-N-126	IMPACT-RESISTANT GLASS	Low-E4*	Without Grilles	0.28	0.34	0.56		
			Simulated Divided Light Grilles	0.28	0.31	0.51		
			Finelight™ Light Grilles	0.30	0.31	0.51		
			Full Divided Light Grilles	0.29	0.31	0.51		
		Low-E4 w/HeatLock*	Without Grilles	0.24	0.33	0.56		
			Simulated Divided Light Grilles	0.24	0.30	0.50		
			Finelight Light Grilles	0.25	0.30	0.50		
			Full Divided Light Grilles	0.26	0.30	0.50		
		Low-E4 Sun	Without Grilles	0.29	0.21	0.30		
			Simulated Divided Light Grilles	0.29	0.19	0.27		
			Finelight Light Grilles	0.29	0.19	0.27		
			Full Divided Light Grilles	0.30	0.19	0.27		
		Low-E4 SmartSun™	Without Grilles	0.28	0.23	0.51		
			Simulated Divided Light Grilles	0.28	0.21	0.45		
			Finelight Light Grilles	0.28	0.21	0.45		
			Full Divided Light Grilles	0.29	0.21	0.45		
Low-E4 SmartSun w/HeatLock	Without Grilles	0.23	0.23	0.50				
	Simulated Divided Light Grilles	0.23	0.20	0.45				
	Finelight Light Grilles	0.25	0.20	0.45				
	Full Divided Light Grilles	0.25	0.20	0.45				
A-Series Sash-Set Specialty Windows (> 36 sq. ft. to 50 sq. ft. or 3.34 m² to 4.65 m²) AND-N-126	IMPACT-RESISTANT GLASS	Low-E4*	Without Grilles	0.30	0.31	0.50		
			Simulated Divided Light Grilles	0.30	0.27	0.45		
			Finelight™ Light Grilles	0.31	0.27	0.45		
			Full Divided Light Grilles	-	-	-		
		Low-E4 w/HeatLock*	Without Grilles	0.26	0.29	0.50		
			Simulated Divided Light Grilles	0.26	0.26	0.44		
			Finelight Light Grilles	0.27	0.26	0.44		
			Full Divided Light Grilles	-	-	-		
		Low-E4 Sun	Without Grilles	0.30	0.19	0.27		
			Simulated Divided Light Grilles	0.30	0.17	0.24		
			Finelight Light Grilles	0.32	0.17	0.24		
			Full Divided Light Grilles	-	-	-		
		Low-E4 SmartSun™	Without Grilles	0.29	0.21	0.45		
			Simulated Divided Light Grilles	0.29	0.19	0.40		
			Finelight Light Grilles	0.31	0.19	0.40		
			Full Divided Light Grilles	-	-	-		
		Low-E4 SmartSun w/HeatLock	Without Grilles	0.25	0.20	0.47		
			Simulated Divided Light Grilles	0.25	0.18	0.40		
			Finelight Light Grilles	0.27	0.18	0.40		
			Full Divided Light Grilles	-	-	-		
		A-Series Frenchwood® Gliding Patio Doors AND-N-99	IMPACT-RESISTANT GLASS	Low-E4*	Without Grilles	0.32	0.26	0.44
					Simulated Divided Light Grilles	0.32	0.23	0.38
					Finelight™ Light Grilles	0.33	0.23	0.38
					Full Divided Light Grilles	0.33	0.23	0.38
Low-E4 w/HeatLock*	Without Grilles			0.28	0.25	0.43		
	Simulated Divided Light Grilles			0.28	0.22	0.37		
	Finelight Light Grilles			0.29	0.22	0.37		
	Full Divided Light Grilles			0.30	0.22	0.37		
Low-E4 Sun	Without Grilles			0.32	0.17	0.24		
	Simulated Divided Light Grilles			0.32	0.15	0.21		
	Finelight Light Grilles			0.33	0.15	0.21		
	Full Divided Light Grilles			0.33	0.15	0.21		
Low-E4 SmartSun™	Without Grilles			0.31	0.18	0.40		
	Simulated Divided Light Grilles			0.31	0.16	0.34		
	Finelight Light Grilles			0.32	0.16	0.34		
	Full Divided Light Grilles			0.32	0.16	0.34		
Low-E4 SmartSun w/HeatLock	Without Grilles			0.28	0.17	0.39		
	Simulated Divided Light Grilles			0.28	0.15	0.33		
	Finelight Light Grilles			0.29	0.15	0.33		
	Full Divided Light Grilles			0.30	0.15	0.33		
Monolithic SmartSun	Clear - Without Grilles	Clear - Without Grilles	0.71	0.25	0.38			
		Clear - Simulated Divided Light Grilles	0.71	0.22	0.32			
		Gray - Without Grilles	0.71	0.22	0.18			
		Gray - Simulated Divided Light Grille	0.71	0.20	0.16			

Andersen® Product		Impact-Resistant Glass Type	U-Factor ¹	SHGC ²	VT ³	
A-Series Frenchwood® Hinged Inswing Patio Doors AND-N-92	IMPACT-RESISTANT GLASS	Low-E ⁴ *	Without Grilles	0.32	0.24	0.40
			Simulated Divided Light Grilles	0.32	0.21	0.34
			Finelight™ Light Grilles	0.33	0.21	0.34
			Full Divided Light Grilles	0.33	0.21	0.34
		Low-E4 w/HeatLock®	Without Grilles	0.29	0.23	0.39
			Simulated Divided Light Grilles	0.29	0.20	0.33
			Finelight Light Grilles	0.30	0.20	0.33
			Full Divided Light Grilles	0.31	0.20	0.33
		Low-E4 Sun	Without Grilles	0.32	0.15	0.22
			Simulated Divided Light Grilles	0.32	0.13	0.19
			Finelight Light Grilles	0.33	0.13	0.19
			Full Divided Light Grilles	0.33	0.13	0.19
		Low-E4 SmartSun™	Without Grilles	0.32	0.16	0.36
			Simulated Divided Light Grilles	0.32	0.14	0.31
			Finelight Light Grilles	0.33	0.14	0.31
			Full Divided Light Grilles	0.33	0.14	0.31
		Low-E4 SmartSun w/HeatLock	Without Grilles	0.28	0.16	0.35
			Simulated Divided Light Grilles	0.28	0.14	0.30
			Finelight Light Grilles	0.29	0.14	0.30
			Full Divided Light Grilles	0.31	0.14	0.30
		Monolithic SmartSun	Clear - Without Grilles	0.67	0.23	0.34
			Clear - Simulated Divided Light Grilles	0.67	0.20	0.29
			Gray - Without Grilles	0.67	0.20	0.17
			Gray - Simulated Divided Light Grille	0.67	0.18	0.14
A-Series Frenchwood® Hinged Outswing Patio Doors AND-N-93	IMPACT-RESISTANT GLASS	Low-E ⁴ *	Without Grilles	0.32	0.24	0.40
			Simulated Divided Light Grilles	0.32	0.21	0.34
			Finelight™ Light Grilles	0.33	0.21	0.34
			Full Divided Light Grilles	0.33	0.21	0.34
		Low-E4 w/HeatLock®	Without Grilles	0.28	0.23	0.39
			Simulated Divided Light Grilles	0.28	0.20	0.33
			Finelight Light Grilles	0.29	0.20	0.33
			Full Divided Light Grilles	0.30	0.20	0.33
		Low-E4 Sun	Without Grilles	0.32	0.15	0.22
			Simulated Divided Light Grilles	0.32	0.13	0.19
			Finelight Light Grilles	0.33	0.13	0.19
			Full Divided Light Grilles	0.33	0.13	0.19
		Low-E4 SmartSun™	Without Grilles	0.31	0.17	0.36
			Simulated Divided Light Grilles	0.31	0.15	0.31
			Finelight Light Grilles	0.32	0.15	0.31
			Full Divided Light Grilles	0.32	0.15	0.31
		Low-E4 SmartSun w/HeatLock	Without Grilles	0.28	0.16	0.35
			Simulated Divided Light Grilles	0.28	0.14	0.30
			Finelight Light Grilles	0.29	0.14	0.30
			Full Divided Light Grilles	0.30	0.14	0.30
		Monolithic SmartSun	Clear - Without Grilles	0.67	0.23	0.34
			Clear - Simulated Divided Light Grilles	0.67	0.20	0.29
			Gray - Without Grilles	0.67	0.21	0.17
			Gray - Simulated Divided Light Grille	0.67	0.18	0.14

continued on next page

For a listing of helpful links related to performance, test reports and regulations, visit andersenwindows.com/coastalperformance.

* "Low-E4", "Low-E4" SmartSun™, "Low-E4" Sun and HeatLock™ are Andersen trademarks for "Low-E" glass.

1) U-Factor defines the amount of heat loss through the total unit in BTU/hr/ft²·°F. The lower the value, the less heat is lost through the entire product. Window values represent non-tempered glass. Use of tempered glass can increase U-Factor ratings. See andersenwindows.com/nfrc for specific performance values. Door values represent tempered glass. 2) Solar Heat Gain Coefficient (SHGC) defines the fraction of solar radiation admitted through the glass both directly transmitted and absorbed and subsequently released inward. The lower the value, the less heat is transmitted through the product. 3) Visible Transmittance (VT) measures how much light comes through a product (glass and frame). The higher the value, from 0 to 1, the more daylight the product lets in over the product's total unit area. Visible Transmittance is measured over the 380 to 760 nanometer portion of the solar spectrum.

* NFRC ratings are based on modeling by a third-party agency as validated by an independent test lab in compliance with NFRC program and procedural requirements.

* This data is accurate as of October 2019. Due to ongoing product changes, updated test results or new industry standards or requirements, this data may change over time. Ratings are for sizes specified by NFRC for testing and certification. Ratings may vary depending on unit size, use of tempered glass, different grille options, glass for high altitudes, etc.

* Values are for single units with given pane thickness and 3/4" (19mm) grilles for windows and 1" (25mm) grilles for door products.

PRODUCT PERFORMANCE



Andersen® NFRC Certified Total Unit Performance (continued)
For current performance information, please visit andersenwindows.com.

Anderson® Product	Impact-Resistant Glass Type		U-Factor¹	SHGC²	VT³		
A-Series Frenchwood® Patio Door Sash-Set Transoms & Sidelight Transoms AND-N-95	IMPACT-RESISTANT GLASS	Low-E4*	Without Grilles	0.31	0.25	0.42	
			Simulated Divided Light Grilles	0.31	0.23	0.38	
			Finelight™ Light Grilles	0.32	0.23	0.38	
			Full Divided Light Grilles	0.32	0.23	0.38	
		Low-E4 w/HeatLock®	Without Grilles	0.28	0.25	0.42	
			Simulated Divided Light Grilles	0.28	0.22	0.37	
			Finelight Light Grilles	0.28	0.22	0.37	
			Full Divided Light Grilles	0.29	0.22	0.37	
		Low-E4 Sun	Without Grilles	0.32	0.16	0.23	
			Simulated Divided Light Grilles	0.32	0.15	0.21	
			Finelight Light Grilles	0.32	0.15	0.21	
			Full Divided Light Grilles	0.32	0.15	0.21	
	Low-E4 SmartSun™	Without Grilles	0.31	0.17	0.38		
		Simulated Divided Light Grilles	0.31	0.16	0.34		
		Finelight Light Grilles	0.31	0.16	0.34		
		Full Divided Light Grilles	0.31	0.16	0.34		
		Low-E4 SmartSun w/HeatLock	Without Grilles	0.28	0.17	0.37	
			Simulated Divided Light Grilles	0.28	0.15	0.33	
	Finelight Light Grilles		0.28	0.15	0.33		
	Full Divided Light Grilles		0.29	0.15	0.33		
	Monolithic SmartSun		Clear - Without Grilles	0.70	0.23	0.35	
			Clear - Simulated Divided Light Grilles	0.70	0.21	0.31	
		Gray - Without Grilles	0.70	0.21	0.17		
		Gray - Simulated Divided Light Grille	0.70	0.19	0.15		
IMPACT-RESISTANT GLASS		Low-E4*	Without Grilles	0.30	0.33	0.57	
			Simulated Divided Light Grilles	0.30	0.30	0.51	
	Finelight™ Light Grilles		0.31	0.30	0.51		
	Full Divided Light Grilles		0.31	0.30	0.51		
	Low-E4 w/HeatLock®	Without Grilles	0.26	0.32	0.56		
		Simulated Divided Light Grilles	0.26	0.29	0.50		
		Finelight Light Grilles	0.26	0.29	0.50		
		Full Divided Light Grilles	0.28	0.29	0.50		
	Low-E4 Sun	Without Grilles	0.31	0.21	0.31		
		Simulated Divided Light Grilles	0.31	0.19	0.28		
		Finelight Light Grilles	0.31	0.19	0.28		
		Full Divided Light Grilles	0.31	0.19	0.28		
Low-E4 SmartSun™	Without Grilles	0.30	0.23	0.51			
	Simulated Divided Light Grilles	0.30	0.21	0.46			
	Finelight Light Grilles	0.30	0.21	0.46			
	Full Divided Light Grilles	0.30	0.21	0.46			
	Low-E4 SmartSun w/HeatLock	Without Grilles	0.26	0.22	0.50		
		Simulated Divided Light Grilles	0.26	0.20	0.45		
Finelight Light Grilles		0.26	0.20	0.45			
Full Divided Light Grilles		0.27	0.20	0.45			
Monolithic SmartSun		Clear - Without Grilles	0.84	0.32	0.49		
		Clear - Simulated Divided Light Grilles	0.84	0.29	0.44		
	Gray - Without Grilles	0.84	0.28	0.24			
	Gray - Simulated Divided Light Grille	0.84	0.26	0.21			
	A-Series Frenchwood® Patio Door Sidelights AND-N-94	IMPACT-RESISTANT GLASS	Low-E4*	Without Grilles	0.31	0.23	0.37
				Simulated Divided Light Grilles	0.31	0.20	0.33
Finelight™ Light Grilles				0.32	0.20	0.33	
Full Divided Light Grilles				0.32	0.20	0.33	
Low-E4 w/HeatLock®			Without Grilles	0.28	0.22	0.37	
			Simulated Divided Light Grilles	0.28	0.20	0.33	
			Finelight Light Grilles	0.29	0.20	0.33	
			Full Divided Light Grilles	0.30	0.20	0.33	
Low-E4 Sun			Without Grilles	0.32	0.14	0.20	
			Simulated Divided Light Grilles	0.32	0.13	0.18	
			Finelight Light Grilles	0.33	0.13	0.18	
			Full Divided Light Grilles	0.32	0.13	0.18	
Low-E4 SmartSun™		Without Grilles	0.31	0.16	0.34		
		Simulated Divided Light Grilles	0.31	0.14	0.30		
		Finelight Light Grilles	0.32	0.14	0.30		
		Full Divided Light Grilles	0.32	0.14	0.30		
		Low-E4 SmartSun w/HeatLock	Without Grilles	0.28	0.15	0.33	
			Simulated Divided Light Grilles	0.28	0.14	0.29	
Finelight Light Grilles			0.29	0.14	0.29		
Full Divided Light Grilles			0.30	0.14	0.29		
Monolithic SmartSun			Clear - Without Grilles	0.65	0.22	0.32	
			Clear - Simulated Divided Light Grilles	0.65	0.19	0.28	
		Gray - Without Grilles	0.65	0.19	0.16		
		Gray - Simulated Divided Light Grille	0.65	0.17	0.14		

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