

A-SERIES PRODUCT PERFORMANCE



Andersen® NFRC Certified Total Unit Performance – Dual-Pane Glass

For current performance information, please visit nfr.org.

Andersen® Product	High-Performance Dual-Pane Glass Type	U-Factor ¹	SHGC ²	VT ³	
A-Series Casement Windows AND-N-86	Low-E4*	Without Grilles	0.27	0.27	0.45
		Simulated Divided Light Grilles	0.27	0.24	0.41
		Finelight™ Grilles	0.27	0.24	0.41
		Full Divided Light Grilles	0.28	0.24	0.41
	Low-E4 w/HeatLock®	Without Grilles	0.24	0.26	0.44
		Simulated Divided Light Grilles	0.24	0.24	0.40
		Finelight Grilles	0.24	0.24	0.40
		Full Divided Light Grilles	0.26	0.24	0.40
	Low-E4 Sun	Without Grilles	0.28	0.16	0.25
		Simulated Divided Light Grilles	0.28	0.15	0.23
		Finelight Grilles	0.28	0.15	0.23
		Full Divided Light Grilles	0.29	0.15	0.23
	Low-E4 SmartSun™	Without Grilles	0.27	0.18	0.41
		Simulated Divided Light Grilles	0.27	0.16	0.37
		Finelight Grilles	0.27	0.16	0.37
		Energy Spacer Divided Light Grilles	0.27	0.16	0.37
	Low-E4 SmartSun w/HeatLock	Without Grilles	0.28	0.16	0.37
		Simulated Divided Light Grilles	0.28	0.16	0.37
		Finelight Grilles	0.28	0.16	0.37
		Energy Spacer Divided Light Grilles	0.28	0.16	0.37
Low-E4 SmartSun w/HeatLock	Without Grilles	0.23	0.17	0.40	
	Simulated Divided Light Grilles	0.23	0.16	0.36	
	Finelight Grilles	0.23	0.16	0.36	
	Energy Spacer Divided Light Grilles	0.23	0.16	0.36	
Low-E4 SmartSun w/HeatLock	Without Grilles	0.25	0.16	0.36	
	Simulated Divided Light Grilles	0.25	0.16	0.36	
	Finelight Grilles	0.25	0.16	0.36	
	Energy Spacer Divided Light Grilles	0.25	0.16	0.36	
A-Series Awning Windows AND-N-87	Low-E4*	Without Grilles	0.28	0.26	0.44
		Simulated Divided Light Grilles	0.28	0.23	0.39
		Finelight™ Grilles	0.28	0.23	0.39
		Full Divided Light Grilles	0.28	0.23	0.39
	Low-E4 w/HeatLock®	Without Grilles	0.25	0.25	0.43
		Simulated Divided Light Grilles	0.25	0.23	0.38
		Finelight Grilles	0.25	0.23	0.38
		Full Divided Light Grilles	0.26	0.23	0.38
	Low-E4 Sun	Without Grilles	0.28	0.16	0.24
		Simulated Divided Light Grilles	0.28	0.15	0.22
		Finelight Grilles	0.28	0.15	0.22
		Full Divided Light Grilles	0.29	0.15	0.22
	Low-E4 SmartSun™	Without Grilles	0.27	0.17	0.39
		Simulated Divided Light Grilles	0.27	0.16	0.35
		Finelight Grilles	0.27	0.16	0.35
		Energy Spacer Divided Light Grilles	0.27	0.16	0.35
	Low-E4 SmartSun™	Without Grilles	0.28	0.16	0.35
		Simulated Divided Light Grilles	0.28	0.16	0.35
		Finelight Grilles	0.28	0.16	0.35
		Energy Spacer Divided Light Grilles	0.28	0.16	0.35
Low-E4 SmartSun w/HeatLock	Without Grilles	0.24	0.17	0.39	
	Simulated Divided Light Grilles	0.24	0.15	0.35	
	Finelight Grilles	0.24	0.15	0.35	
	Energy Spacer Divided Light Grilles	0.24	0.15	0.35	
Low-E4 SmartSun w/HeatLock	Without Grilles	0.25	0.15	0.35	
	Simulated Divided Light Grilles	0.25	0.15	0.35	
	Finelight Grilles	0.25	0.15	0.35	
	Energy Spacer Divided Light Grilles	0.25	0.15	0.35	
A-Series Double-Hung Windows AND-N-91	Low-E4*	Without Grilles	0.29	0.30	0.52
		Simulated Divided Light Grilles	0.29	0.27	0.46
		Finelight™ Grilles	0.29	0.27	0.46
		Full Divided Light Grilles	0.30	0.27	0.46
	Low-E4 w/HeatLock®	Without Grilles	0.25	0.30	0.51
		Simulated Divided Light Grilles	0.25	0.27	0.45
		Finelight Grilles	0.25	0.27	0.45
		Full Divided Light Grilles	0.27	0.27	0.45
	Low-E4 Sun	Without Grilles	0.29	0.19	0.29
		Simulated Divided Light Grilles	0.29	0.17	0.26
		Finelight Grilles	0.29	0.17	0.26
		Full Divided Light Grilles	0.31	0.17	0.26
	Low-E4 SmartSun™	Without Grilles	0.27	0.20	0.47
		Simulated Divided Light Grilles	0.27	0.18	0.41
		Finelight Grilles	0.27	0.18	0.41
		Energy Spacer Divided Light Grilles	0.27	0.18	0.41
	Low-E4 SmartSun™	Without Grilles	0.30	0.18	0.41
		Simulated Divided Light Grilles	0.30	0.18	0.41
		Finelight Grilles	0.30	0.18	0.41
		Energy Spacer Divided Light Grilles	0.30	0.18	0.41
Low-E4 SmartSun w/HeatLock	Without Grilles	0.25	0.20	0.46	
	Simulated Divided Light Grilles	0.25	0.18	0.40	
	Finelight Grilles	0.25	0.18	0.40	
	Energy Spacer Divided Light Grilles	0.25	0.18	0.40	
Low-E4 SmartSun w/HeatLock	Without Grilles	0.25	0.18	0.40	
	Simulated Divided Light Grilles	0.25	0.18	0.40	
	Finelight Grilles	0.25	0.18	0.40	
	Energy Spacer Divided Light Grilles	0.25	0.18	0.40	

Andersen® Product	High-Performance Dual-Pane Glass Type	U-Factor ¹	SHGC ²	VT ³	
A-Series Picture Windows AND-N-88	Low-E4*	Without Grilles	0.27	0.31	0.54
		Simulated Divided Light Grilles	0.27	0.28	0.48
		Finelight™ Grilles	0.27	0.28	0.48
		Full Divided Light Grilles	0.28	0.28	0.48
	Low-E4 w/HeatLock®	Without Grilles	0.23	0.31	0.53
		Simulated Divided Light Grilles	0.23	0.28	0.47
		Finelight Grilles	0.23	0.28	0.47
		Full Divided Light Grilles	0.25	0.28	0.47
	Low-E4 Sun	Without Grilles	0.27	0.19	0.30
		Simulated Divided Light Grilles	0.27	0.17	0.27
		Finelight Grilles	0.27	0.17	0.27
		Full Divided Light Grilles	0.29	0.17	0.27
	Low-E4 SmartSun™	Without Grilles	0.26	0.21	0.49
		Simulated Divided Light Grilles	0.26	0.19	0.43
		Finelight Grilles	0.26	0.19	0.43
		Energy Spacer Divided Light Grilles	0.26	0.19	0.43
	Low-E4 SmartSun™	Without Grilles	0.28	0.19	0.43
		Simulated Divided Light Grilles	0.28	0.19	0.43
		Finelight Grilles	0.28	0.19	0.43
		Energy Spacer Divided Light Grilles	0.28	0.19	0.43
Low-E4 SmartSun w/HeatLock	Without Grilles	0.22	0.20	0.48	
	Simulated Divided Light Grilles	0.22	0.18	0.42	
	Finelight Grilles	0.22	0.18	0.42	
	Energy Spacer Divided Light Grilles	0.22	0.18	0.42	
Low-E4 SmartSun w/HeatLock	Without Grilles	0.25	0.18	0.42	
	Simulated Divided Light Grilles	0.25	0.18	0.42	
	Finelight Grilles	0.25	0.18	0.42	
	Energy Spacer Divided Light Grilles	0.25	0.18	0.42	
A-Series Venting Transom Windows AND-N-90	Low-E4*	Without Grilles	0.28	0.27	0.46
		Simulated Divided Light Grilles	0.28	0.25	0.41
		Finelight™ Grilles	0.28	0.25	0.41
		Full Divided Light Grilles	0.28	0.25	0.41
	Low-E4 w/HeatLock®	Without Grilles	0.25	0.26	0.45
		Simulated Divided Light Grilles	0.25	0.24	0.40
		Finelight Grilles	0.25	0.24	0.40
		Full Divided Light Grilles	0.26	0.24	0.40
	Low-E4 Sun	Without Grilles	0.28	0.17	0.26
		Simulated Divided Light Grilles	0.28	0.15	0.23
		Finelight Grilles	0.28	0.15	0.23
		Full Divided Light Grilles	0.29	0.15	0.23
	Low-E4 SmartSun™	Without Grilles	0.27	0.18	0.41
		Simulated Divided Light Grilles	0.27	0.16	0.37
		Finelight Grilles	0.27	0.16	0.37
		Energy Spacer Divided Light Grilles	0.27	0.16	0.37
	Low-E4 SmartSun™	Without Grilles	0.28	0.16	0.37
		Simulated Divided Light Grilles	0.28	0.16	0.37
		Finelight Grilles	0.28	0.16	0.37
		Energy Spacer Divided Light Grilles	0.28	0.16	0.37
Low-E4 SmartSun w/HeatLock	Without Grilles	0.24	0.18	0.40	
	Simulated Divided Light Grilles	0.24	0.16	0.36	
	Finelight Grilles	0.24	0.16	0.36	
	Energy Spacer Divided Light Grilles	0.24	0.16	0.36	
Low-E4 SmartSun w/HeatLock	Without Grilles	0.24	0.16	0.36	
	Simulated Divided Light Grilles	0.24	0.16	0.36	
	Finelight Grilles	0.24	0.16	0.36	
	Energy Spacer Divided Light Grilles	0.24	0.16	0.36	
Low-E4 SmartSun w/HeatLock	Without Grilles	0.25	0.16	0.36	
	Simulated Divided Light Grilles	0.25	0.16	0.36	
	Finelight Grilles	0.25	0.16	0.36	
	Energy Spacer Divided Light Grilles	0.25	0.16	0.36	

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* "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 directly transmitted, as well as 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 Light 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 November 2022. 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 use of tempered glass, different grille options, glass with capillary breather tubes for high altitudes, etc.

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

A-SERIES PRODUCT PERFORMANCE



Andersen® NFRC Certified Total Unit Performance – Dual-Pane Glass (continued)

For current performance information, please visit nfr.org.

Andersen® Product	High-Performance Dual-Pane Glass Type	U-Factor ¹	SHGC ²	VT ³	
A-Series Fixed Transom Windows AND-N-89	Low-E4*	Without Grilles	0.27	0.32	0.55
		Simulated Divided Light Grilles	0.27	0.29	0.49
		Finelight™ Grilles	0.27	0.29	0.49
		Full Divided Light Grilles	0.28	0.29	0.49
	Low-E4 w/HeatLock*	Without Grilles	0.23	0.31	0.54
		Simulated Divided Light Grilles	0.23	0.28	0.48
		Finelight Grilles	0.23	0.28	0.48
		Full Divided Light Grilles	0.25	0.28	0.48
	Low-E4 Sun	Without Grilles	0.27	0.20	0.31
		Simulated Divided Light Grilles	0.27	0.18	0.27
		Finelight Grilles	0.27	0.18	0.27
		Full Divided Light Grilles	0.29	0.18	0.27
	Low-E4 SmartSun™	Without Grilles	0.26	0.21	0.49
		Simulated Divided Light Grilles	0.26	0.19	0.44
		Finelight Grilles	0.26	0.19	0.44
		Energy Spacer Divided Light Grilles	0.26	0.19	0.44
		Full Divided Light Grilles	0.28	0.19	0.44
	Low-E4 SmartSun w/HeatLock	Without Grilles	0.22	0.21	0.48
		Simulated Divided Light Grilles	0.22	0.19	0.43
		Finelight Grilles	0.22	0.19	0.43
Energy Spacer Divided Light Grilles		0.22	0.19	0.43	
Full Divided Light Grilles		0.25	0.19	0.43	
A-Series Specialty Windows Direct-Set AND-N-126	Low-E4*	Without Grilles	0.29	0.35	0.61
		Simulated Divided Light Grilles	0.29	0.32	0.54
		Finelight™ Grilles	0.30	0.32	0.54
		Full Divided Light Grilles	0.30	0.32	0.54
		Without Grilles	0.25	0.35	0.59
	Low-E4 w/HeatLock*	Simulated Divided Light Grilles	0.25	0.31	0.53
		Finelight Grilles	0.26	0.31	0.53
		Full Divided Light Grilles	0.27	0.31	0.53
		Without Grilles	0.30	0.22	0.34
	Low-E4 Sun	Simulated Divided Light Grilles	0.30	0.20	0.30
		Finelight Grilles	0.31	0.20	0.30
		Full Divided Light Grilles	0.31	0.20	0.30
		Without Grilles	0.28	0.23	0.55
	Low-E4 SmartSun™	Simulated Divided Light Grilles	0.28	0.21	0.49
		Finelight Grilles	0.30	0.21	0.49
		Full Divided Light Grilles	0.30	0.21	0.49
		Without Grilles	0.24	0.23	0.53
	Low-E4 SmartSun w/HeatLock	Simulated Divided Light Grilles	0.24	0.21	0.48
		Finelight Grilles	0.25	0.21	0.48
		Full Divided Light Grilles	0.26	0.21	0.48
Without Grilles		0.30	0.32	0.55	
A-Series Specialty Windows Sash-Set AND-N-128	Low-E4*	Simulated Divided Light Grilles	0.30	0.29	0.49
		Finelight™ Grilles	0.31	0.29	0.49
		Full Divided Light Grilles	0.31	0.29	0.49
		Without Grilles	0.26	0.31	0.53
	Low-E4 w/HeatLock*	Simulated Divided Light Grilles	0.26	0.28	0.48
		Finelight Grilles	0.27	0.28	0.48
		Full Divided Light Grilles	0.28	0.28	0.48
		Without Grilles	0.30	0.20	0.30
	Low-E4 Sun	Simulated Divided Light Grilles	0.30	0.18	0.27
		Finelight Grilles	0.31	0.18	0.27
		Full Divided Light Grilles	0.31	0.18	0.27
		Without Grilles	0.29	0.21	0.49
	Low-E4 SmartSun™	Simulated Divided Light Grilles	0.29	0.19	0.44
		Finelight Grilles	0.30	0.19	0.44
		Full Divided Light Grilles	0.30	0.19	0.44
		Without Grilles	0.25	0.21	0.48
	Low-E4 SmartSun w/HeatLock	Simulated Divided Light Grilles	0.25	0.19	0.43
		Finelight Grilles	0.26	0.19	0.43
		Full Divided Light Grilles	0.27	0.19	0.43
		Without Grilles	0.27	0.19	0.43

Andersen® Product	High-Performance Dual-Pane Glass Type	U-Factor ¹	SHGC ²	VT ³	
A-Series Complementary Casement Windows AND-N-107	Low-E4*	Without Grilles	0.30	0.28	0.47
		Simulated Divided Light Grilles	0.30	0.25	0.42
		Finelight™ Grilles	0.30	0.25	0.42
		Full Divided Light Grilles	0.31	0.25	0.42
	Low-E4 w/HeatLock*	Without Grilles	0.27	0.27	0.46
		Simulated Divided Light Grilles	0.27	0.25	0.41
		Finelight Grilles	0.27	0.25	0.41
		Full Divided Light Grilles	0.28	0.25	0.41
	Low-E4 Sun	Without Grilles	0.30	0.17	0.26
		Simulated Divided Light Grilles	0.30	0.16	0.23
		Finelight Grilles	0.30	0.16	0.23
		Full Divided Light Grilles	0.31	0.16	0.23
	Low-E4 SmartSun™	Without Grilles	0.30	0.18	0.42
		Simulated Divided Light Grilles	0.30	0.17	0.38
		Finelight Grilles	0.30	0.17	0.38
		Full Divided Light Grilles	0.30	0.17	0.38
	Low-E4 SmartSun w/HeatLock	Without Grilles	0.26	0.18	0.41
		Simulated Divided Light Grilles	0.26	0.17	0.37
		Finelight Grilles	0.26	0.17	0.37
		Full Divided Light Grilles	0.28	0.17	0.37
A-Series Gliding Patio Doors Traditional Panels AND-N-99	Low-E4*	Without Grilles	0.30	0.27	0.45
		Blinds-Between-the-Glass*	0.35	0.24	0.40
		Simulated Divided Light Grilles	0.30	0.23	0.39
		Finelight™ Grilles	0.30	0.23	0.39
		Full Divided Light Grilles	0.31	0.23	0.39
	Low-E4 w/HeatLock*	Without Grilles	0.27	0.26	0.44
		Simulated Divided Light Grilles	0.27	0.23	0.38
		Finelight Grilles	0.27	0.23	0.38
		Full Divided Light Grilles	0.29	0.23	0.38
	Low-E4 Sun	Without Grilles	0.30	0.16	0.25
		Simulated Divided Light Grilles	0.30	0.15	0.22
		Finelight Grilles	0.30	0.15	0.22
		Full Divided Light Grilles	0.32	0.15	0.22
	Low-E4 SmartSun™	Without Grilles	0.29	0.18	0.40
		Simulated Divided Light Grilles	0.29	0.16	0.35
		Finelight Grilles	0.29	0.16	0.35
		Energy Spacer Divided Light Grilles	0.29	0.16	0.35
	Low-E4 SmartSun w/HeatLock	Full Divided Light Grilles	0.31	0.16	0.35
		Without Grilles	0.26	0.17	0.40
		Simulated Divided Light Grilles	0.26	0.15	0.34
Finelight Grilles		0.26	0.15	0.34	
Low-E4 SmartSun w/HeatLock	Energy Spacer Divided Light Grilles	0.26	0.15	0.34	
	Full Divided Light Grilles	0.29	0.15	0.34	

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* "Low-E4*", "Low-E4 SmartSun™", "Low-E4 Sun" and "HeatLock™" are Andersen trademarks for "Low-E" glass.
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 • Values are for single units with given pane thickness and 3/4" (19 mm) grilles for windows and 1" (25 mm) grilles for door products.
 *Available for select patio door sizes. Data based on blinds in full open position.

A-SERIES PRODUCT PERFORMANCE



Andersen® NFRC Certified Total Unit Performance – Dual-Pane Glass (continued)

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Andersen® Product	High-Performance Dual-Pane Glass Type	U-Factor ¹	SHGC ²	VT ³	
A-Series Gliding Patio Doors Contemporary Panels AND-N-212	Low-E4 ⁺	Without Grilles	0.29	0.28	0.48
		Blinds-Between-the-Glass [*]	0.35	0.26	0.43
		Simulated Divided Light Grilles	0.29	0.25	0.41
		Finelight™ Grilles	0.31	0.25	0.41
		Full Divided Light Grilles	0.31	0.25	0.41
	Low-E4 w/HeatLock [*]	Without Grilles	0.26	0.28	0.47
		Simulated Divided Light Grilles	0.26	0.24	0.40
		Finelight Grilles	0.27	0.24	0.40
		Full Divided Light Grilles	0.29	0.24	0.40
	Low-E4 Sun	Without Grilles	0.30	0.17	0.27
		Simulated Divided Light Grilles	0.30	0.15	0.23
		Finelight Grilles	0.31	0.15	0.23
		Full Divided Light Grilles	0.31	0.15	0.23
	Low-E4 SmartSun™	Without Grilles	0.29	0.19	0.43
		Simulated Divided Light Grilles	0.29	0.17	0.37
		Finelight Grilles	0.30	0.17	0.37
		Energy Spacer Divided Light Grilles	0.29	0.17	0.37
	Low-E4 SmartSun w/HeatLock	Without Grilles	0.25	0.18	0.42
		Simulated Divided Light Grilles	0.25	0.16	0.36
		Finelight Grilles	0.27	0.16	0.36
Energy Spacer Divided Light Grilles		0.25	0.16	0.36	
A-Series Hinged Inswing Patio Doors Traditional Panels AND-N-92	Low-E4 ⁺	Without Grilles	0.30	0.24	0.41
		Blinds-Between-the-Glass [*]	0.35	0.23	0.38
		Simulated Divided Light Grilles	0.30	0.21	0.35
		Finelight™ Grilles	0.30	0.21	0.35
		Full Divided Light Grilles	0.32	0.21	0.35
	Low-E4 w/HeatLock [*]	Without Grilles	0.27	0.24	0.40
		Simulated Divided Light Grilles	0.27	0.20	0.34
		Finelight Grilles	0.28	0.20	0.34
		Full Divided Light Grilles	0.30	0.20	0.34
	Low-E4 Sun	Without Grilles	0.31	0.15	0.23
		Simulated Divided Light Grilles	0.31	0.13	0.19
		Finelight Grilles	0.32	0.13	0.19
		Full Divided Light Grilles	0.32	0.13	0.19
	Low-E4 SmartSun™	Without Grilles	0.30	0.16	0.37
		Simulated Divided Light Grilles	0.30	0.14	0.31
		Finelight Grilles	0.31	0.14	0.31
		Energy Spacer Divided Light Grilles	0.30	0.14	0.31
	Low-E4 SmartSun w/HeatLock	Without Grilles	0.27	0.16	0.36
		Simulated Divided Light Grilles	0.27	0.14	0.31
		Finelight Grilles	0.28	0.14	0.31
Energy Spacer Divided Light Grilles		0.27	0.14	0.31	
A-Series Hinged Inswing Patio Doors Contemporary Panels AND-N-211	Low-E4 ⁺	Without Grilles	0.30	0.25	0.43
		Blinds-Between-the-Glass [*]	0.35	0.24	0.40
		Simulated Divided Light Grilles	0.30	0.22	0.37
		Finelight™ Grilles	0.31	0.22	0.37
		Full Divided Light Grilles	0.31	0.22	0.37
	Low-E4 w/HeatLock [*]	Without Grilles	0.27	0.25	0.42
		Simulated Divided Light Grilles	0.27	0.22	0.36
		Finelight Grilles	0.28	0.22	0.36
		Full Divided Light Grilles	0.29	0.22	0.36
	Low-E4 Sun	Without Grilles	0.30	0.16	0.24
		Simulated Divided Light Grilles	0.30	0.14	0.21
		Finelight Grilles	0.32	0.14	0.21
		Full Divided Light Grilles	0.32	0.14	0.21
	Low-E4 SmartSun™	Without Grilles	0.29	0.17	0.39
		Simulated Divided Light Grilles	0.29	0.15	0.33
		Finelight Grilles	0.31	0.15	0.33
		Energy Spacer Divided Light Grilles	0.29	0.15	0.33
	Low-E4 SmartSun w/HeatLock	Without Grilles	0.26	0.17	0.38
		Simulated Divided Light Grilles	0.26	0.15	0.33
		Finelight Grilles	0.28	0.15	0.33
Energy Spacer Divided Light Grilles		0.26	0.15	0.33	
Low-E4 SmartSun w/HeatLock	Without Grilles	0.26	0.17	0.38	
	Simulated Divided Light Grilles	0.26	0.15	0.33	
	Finelight Grilles	0.28	0.15	0.33	
	Energy Spacer Divided Light Grilles	0.26	0.15	0.33	

Andersen® Product	High-Performance Dual-Pane Glass Type	U-Factor ¹	SHGC ²	VT ³	
A-Series Hinged Outswing Patio Doors Traditional Panels AND-N-93	Low-E4 ⁺	Without Grilles	0.30	0.24	0.41
		Blinds-Between-the-Glass [*]	0.34	0.23	0.38
		Simulated Divided Light Grilles	0.30	0.21	0.35
		Finelight™ Grilles	0.31	0.21	0.35
		Full Divided Light Grilles	0.31	0.21	0.35
	Low-E4 w/HeatLock [*]	Without Grilles	0.27	0.24	0.40
		Simulated Divided Light Grilles	0.27	0.21	0.34
		Finelight Grilles	0.28	0.21	0.34
		Full Divided Light Grilles	0.29	0.21	0.34
	Low-E4 Sun	Without Grilles	0.30	0.15	0.23
		Simulated Divided Light Grilles	0.30	0.13	0.19
		Finelight Grilles	0.31	0.13	0.19
		Full Divided Light Grilles	0.32	0.13	0.19
	Low-E4 SmartSun™	Without Grilles	0.29	0.16	0.37
		Simulated Divided Light Grilles	0.29	0.14	0.31
		Finelight Grilles	0.31	0.14	0.31
		Energy Spacer Divided Light Grilles	0.29	0.14	0.31
	Low-E4 SmartSun w/HeatLock	Without Grilles	0.26	0.16	0.36
		Simulated Divided Light Grilles	0.26	0.14	0.31
		Finelight Grilles	0.28	0.14	0.31
Energy Spacer Divided Light Grilles		0.26	0.14	0.31	
A-Series Hinged Outswing Patio Doors Contemporary Panels AND-N-210	Low-E4 ⁺	Without Grilles	0.29	0.26	0.43
		Blinds-Between-the-Glass [*]	0.34	0.24	0.40
		Simulated Divided Light Grilles	0.29	0.23	0.37
		Finelight™ Grilles	0.31	0.23	0.37
		Full Divided Light Grilles	0.31	0.23	0.37
	Low-E4 w/HeatLock [*]	Without Grilles	0.26	0.25	0.42
		Simulated Divided Light Grilles	0.26	0.22	0.36
		Finelight Grilles	0.27	0.22	0.36
		Full Divided Light Grilles	0.29	0.22	0.36
	Low-E4 Sun	Without Grilles	0.30	0.16	0.24
		Simulated Divided Light Grilles	0.30	0.14	0.21
		Finelight Grilles	0.31	0.14	0.21
		Full Divided Light Grilles	0.31	0.14	0.21
	Low-E4 SmartSun™	Without Grilles	0.29	0.17	0.39
		Simulated Divided Light Grilles	0.29	0.15	0.33
		Finelight Grilles	0.30	0.15	0.33
		Energy Spacer Divided Light Grilles	0.29	0.15	0.33
	Low-E4 SmartSun w/HeatLock	Without Grilles	0.26	0.17	0.38
		Simulated Divided Light Grilles	0.26	0.15	0.33
		Finelight Grilles	0.27	0.15	0.33
Energy Spacer Divided Light Grilles		0.26	0.15	0.33	
Low-E4 SmartSun w/HeatLock	Without Grilles	0.26	0.17	0.38	
	Simulated Divided Light Grilles	0.26	0.15	0.33	
	Finelight Grilles	0.27	0.15	0.33	
	Energy Spacer Divided Light Grilles	0.26	0.15	0.33	

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* "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 directly transmitted, as well as 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 Light 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 November 2022. 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 use of tempered glass, different grille options, glass with capillary breather tubes for high altitudes, etc.
 • Values are for single units with given pane thickness and 3/4" (19 mm) grilles for windows and 1" (25 mm) grilles for door products.
 *Available for select patio door sizes. Data based on blinds in full open position.

A-SERIES PRODUCT PERFORMANCE



Andersen® NFRC Certified Total Unit Performance – Dual-Pane Glass (continued)

For current performance information, please visit nfr.org.

Andersen® Product	High-Performance Dual-Pane Glass Type	U-Factor ¹	SHGC ²	VT ³	
A-Series Patio Door Sidelight Transoms Direct-Set AND-N-96	Low-E4*	Without Grilles	0.28	0.34	0.58
		Simulated Divided Light Grilles	0.28	0.31	0.53
		Finelight™ Grilles	0.29	0.31	0.53
		Full Divided Light Grilles	0.29	0.31	0.53
	Low-E4 w/HeatLock*	Without Grilles	0.24	0.33	0.57
		Simulated Divided Light Grilles	0.24	0.30	0.51
		Finelight Grilles	0.24	0.30	0.51
		Full Divided Light Grilles	0.26	0.30	0.51
	Low-E4 Sun	Without Grilles	0.28	0.21	0.32
		Simulated Divided Light Grilles	0.28	0.19	0.29
		Finelight Grilles	0.29	0.19	0.29
		Full Divided Light Grilles	0.29	0.19	0.29
	Low-E4 SmartSun™	Without Grilles	0.27	0.22	0.52
		Simulated Divided Light Grilles	0.27	0.20	0.47
		Finelight Grilles	0.28	0.20	0.47
		Energy Spacer Divided Light Grilles	0.27	0.20	0.47
		Full Divided Light Grilles	0.28	0.20	0.47
	Low-E4 SmartSun w/HeatLock	Without Grilles	0.23	0.22	0.51
		Simulated Divided Light Grilles	0.23	0.20	0.46
		Finelight Grilles	0.24	0.20	0.46
Energy Spacer Divided Light Grilles		0.23	0.20	0.46	
Full Divided Light Grilles		0.25	0.20	0.46	
A-Series Patio Door Sidelight Transoms Sash-Set AND-N-95	Low-E4*	Without Grilles	0.29	0.26	0.43
		Simulated Divided Light Grilles	0.29	0.23	0.39
		Finelight™ 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 Grilles	0.27	0.23	0.38
		Full Divided Light Grilles	0.28	0.23	0.38
	Low-E4 Sun	Without Grilles	0.30	0.16	0.24
		Simulated Divided Light Grilles	0.30	0.15	0.21
		Finelight Grilles	0.30	0.15	0.21
		Full Divided Light Grilles	0.30	0.15	0.21
	Low-E4 SmartSun™	Without Grilles	0.29	0.17	0.39
		Simulated Divided Light Grilles	0.29	0.16	0.35
		Finelight Grilles	0.29	0.16	0.35
		Energy Spacer Divided Light Grilles	0.29	0.16	0.35
		Full Divided Light Grilles	0.30	0.16	0.35
	Low-E4 SmartSun w/HeatLock	Without Grilles	0.26	0.17	0.38
		Simulated Divided Light Grilles	0.26	0.15	0.34
		Finelight Grilles	0.26	0.15	0.34
Energy Spacer Divided Light Grilles		0.26	0.15	0.34	
Full Divided Light Grilles		0.27	0.15	0.34	
A-Series Patio Door Transoms Direct-Set AND-N-96	Low-E4*	Without Grilles	0.28	0.34	0.58
		Simulated Divided Light Grilles	0.28	0.31	0.53
		Finelight™ Grilles	0.29	0.31	0.53
		Full Divided Light Grilles	0.29	0.31	0.53
	Low-E4 w/HeatLock*	Without Grilles	0.24	0.33	0.57
		Simulated Divided Light Grilles	0.24	0.30	0.51
		Finelight Grilles	0.24	0.30	0.51
		Full Divided Light Grilles	0.26	0.30	0.51
	Low-E4 Sun	Without Grilles	0.28	0.21	0.32
		Simulated Divided Light Grilles	0.28	0.19	0.29
		Finelight Grilles	0.29	0.19	0.29
		Full Divided Light Grilles	0.29	0.19	0.29
	Low-E4 SmartSun™	Without Grilles	0.27	0.22	0.52
		Simulated Divided Light Grilles	0.27	0.20	0.47
		Finelight Grilles	0.28	0.20	0.47
		Energy Spacer Divided Light Grilles	0.27	0.20	0.47
		Full Divided Light Grilles	0.28	0.20	0.47
	Low-E4 SmartSun w/HeatLock	Without Grilles	0.23	0.22	0.51
		Simulated Divided Light Grilles	0.23	0.20	0.46
		Finelight Grilles	0.24	0.20	0.46
Energy Spacer Divided Light Grilles		0.23	0.20	0.46	
Full Divided Light Grilles		0.25	0.20	0.46	

Andersen® Product	High-Performance Dual-Pane Glass Type	U-Factor ¹	SHGC ²	VT ³	
A-Series Patio Door Transoms Sash-Set AND-N-95	Low-E4*	Without Grilles	0.30	0.25	0.41
		Simulated Divided Light Grilles	0.30	0.22	0.37
		Finelight™ Grilles	0.30	0.22	0.37
		Full Divided Light Grilles	0.30	0.22	0.37
	Low-E4 w/HeatLock*	Without Grilles	0.27	0.24	0.40
		Simulated Divided Light Grilles	0.27	0.22	0.36
		Finelight Grilles	0.27	0.22	0.36
		Full Divided Light Grilles	0.28	0.22	0.36
	Low-E4 Sun	Without Grilles	0.30	0.15	0.23
		Simulated Divided Light Grilles	0.30	0.14	0.20
		Finelight Grilles	0.31	0.14	0.20
		Full Divided Light Grilles	0.31	0.14	0.20
	Low-E4 SmartSun™	Without Grilles	0.29	0.16	0.37
		Simulated Divided Light Grilles	0.29	0.15	0.33
		Finelight Grilles	0.30	0.15	0.33
		Energy Spacer Divided Light Grilles	0.29	0.15	0.33
		Full Divided Light Grilles	0.30	0.15	0.33
	Low-E4 SmartSun w/HeatLock	Without Grilles	0.26	0.16	0.36
		Simulated Divided Light Grilles	0.26	0.15	0.32
		Finelight Grilles	0.27	0.15	0.32
Energy Spacer Divided Light Grilles		0.26	0.15	0.32	
Full Divided Light Grilles		0.28	0.15	0.32	
A-Series Patio Door Sidelights Traditional Panels AND-N-94	Low-E4*	Without Grilles	0.30	0.23	0.39
		Simulated Divided Light Grilles	0.30	0.21	0.34
		Finelight™ Grilles	0.31	0.21	0.34
		Full Divided Light Grilles	0.31	0.21	0.34
	Low-E4 w/HeatLock*	Without Grilles	0.27	0.23	0.38
		Simulated Divided Light Grilles	0.27	0.21	0.34
		Finelight Grilles	0.28	0.21	0.34
		Full Divided Light Grilles	0.29	0.21	0.34
	Low-E4 Sun	Without Grilles	0.30	0.15	0.22
		Simulated Divided Light Grilles	0.30	0.13	0.19
		Finelight Grilles	0.31	0.13	0.19
		Full Divided Light Grilles	0.31	0.13	0.19
	Low-E4 SmartSun™	Without Grilles	0.29	0.16	0.35
		Simulated Divided Light Grilles	0.29	0.14	0.31
		Finelight Grilles	0.30	0.14	0.31
		Energy Spacer Divided Light Grilles	0.29	0.14	0.31
		Full Divided Light Grilles	0.30	0.14	0.31
	Low-E4 SmartSun w/HeatLock	Without Grilles	0.27	0.15	0.34
		Simulated Divided Light Grilles	0.27	0.14	0.30
		Finelight Grilles	0.27	0.14	0.30
Energy Spacer Divided Light Grilles		0.27	0.14	0.30	
Full Divided Light Grilles		0.28	0.14	0.30	

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* "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 directly transmitted, as well as 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 Light 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 November 2022. 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 use of tempered glass, different grille options, glass with capillary breather tubes for high altitudes, etc.
 • Values are for single units with given pane thickness and 3/4" (19 mm) grilles for windows and Page 4 of 10 grilles for door products.

A-SERIES PRODUCT PERFORMANCE



Andersen® NFRC Certified Total Unit Performance – Dual-Pane Glass (continued)

For current performance information, please visit nfr.org.

Andersen® Product	High-Performance Dual-Pane Glass Type	U-Factor ¹	SHGC ²	VT ³	
A-Series Patio Door Sidelights Contemporary Panels AND-N-213	Low-E4*	Without Grilles	0.30	0.22	0.36
		Simulated Divided Light Grilles	0.30	0.20	0.32
		Finelight™ Grilles	0.31	0.20	0.32
		Full Divided Light Grilles	0.31	0.20	0.32
	Low-E4 w/HeatLock*	Without Grilles	0.28	0.21	0.35
		Simulated Divided Light Grilles	0.28	0.19	0.31
		Finelight Grilles	0.28	0.19	0.31
		Full Divided Light Grilles	0.29	0.19	0.31
	Low-E4 Sun	Without Grilles	0.30	0.14	0.20
		Simulated Divided Light Grilles	0.30	0.12	0.18
		Finelight™ Grilles	0.31	0.12	0.18
		Full Divided Light Grilles	0.31	0.12	0.18
	Low-E4 SmartSun™	Without Grilles	0.30	0.15	0.32
		Simulated Divided Light Grilles	0.30	0.13	0.29
		Finelight Grilles	0.31	0.13	0.29
		Energy Spacer Divided Light Grilles	0.30	0.13	0.29
		Full Divided Light Grilles	0.31	0.13	0.29
	Low-E4 SmartSun w/HeatLock	Without Grilles	0.27	0.14	0.32
		Simulated Divided Light Grilles	0.27	0.13	0.28
		Finelight Grilles	0.28	0.13	0.28
Energy Spacer Divided Light Grilles		0.27	0.13	0.28	
Full Divided Light Grilles		0.29	0.13	0.28	
A-Series Complementary Hinged Inswing Patio Doors Springline™ & Arch AND-N-127	Low-E4*	Without Grilles	0.33	0.24	0.41
		Simulated Divided Light Grilles	0.33	0.21	0.35
		Finelight™ Grilles	0.34	0.21	0.35
		Full Divided Light Grilles	0.34	0.21	0.35
	Low-E4 w/HeatLock*	Without Grilles	0.29	0.24	0.40
		Simulated Divided Light Grilles	0.29	0.21	0.34
		Finelight Grilles	0.31	0.21	0.34
		Full Divided Light Grilles	0.32	0.21	0.34
	Low-E4 Sun	Without Grilles	0.33	0.15	0.23
		Simulated Divided Light Grilles	0.33	0.13	0.20
		Finelight Grilles	0.34	0.13	0.20
		Full Divided Light Grilles	0.34	0.13	0.20
	Low-E4 SmartSun™	Without Grilles	0.32	0.16	0.37
		Simulated Divided Light Grilles	0.32	0.14	0.32
		Finelight Grilles	0.33	0.14	0.32
		Full Divided Light Grilles	0.34	0.14	0.32
	Low-E4 SmartSun w/HeatLock	Without Grilles	0.29	0.16	0.36
		Simulated Divided Light Grilles	0.29	0.14	0.31
		Finelight Grilles	0.30	0.14	0.31
		Full Divided Light Grilles	0.32	0.14	0.31
A-Series Complementary Hinged Outswing Patio Doors Springline & Arch AND-N-127	Low-E4*	Without Grilles	0.33	0.25	0.41
		Simulated Divided Light Grilles	0.33	0.22	0.35
		Finelight™ Grilles	0.35	0.22	0.35
		Full Divided Light Grilles	0.35	0.22	0.35
	Low-E4 w/HeatLock*	Without Grilles	0.30	0.24	0.40
		Simulated Divided Light Grilles	0.30	0.21	0.34
		Finelight Grilles	0.31	0.21	0.34
		Full Divided Light Grilles	0.33	0.21	0.34
	Low-E4 Sun	Without Grilles	0.33	0.16	0.23
		Simulated Divided Light Grilles	0.33	0.14	0.20
		Finelight Grilles	0.35	0.14	0.20
		Full Divided Light Grilles	0.35	0.14	0.20
	Low-E4 SmartSun™	Without Grilles	0.33	0.17	0.37
		Simulated Divided Light Grilles	0.33	0.15	0.32
		Finelight Grilles	0.34	0.15	0.32
		Full Divided Light Grilles	0.34	0.15	0.32
	Low-E4 SmartSun w/HeatLock	Without Grilles	0.30	0.16	0.36
		Simulated Divided Light Grilles	0.30	0.14	0.31
		Finelight Grilles	0.31	0.14	0.31
		Full Divided Light Grilles	0.32	0.14	0.31

Andersen® Product	High-Performance Dual-Pane Glass Type	U-Factor ¹	SHGC ²	VT ³	
A-Series Complementary Patio Door Sidelights Arch AND-N-131	Low-E4*	Without Grilles	0.32	0.23	0.39
		Simulated Divided Light Grilles	0.32	0.21	0.34
		Finelight™ Grilles	0.34	0.21	0.34
		Full Divided Light Grilles	0.33	0.21	0.34
	Low-E4 w/HeatLock*	Without Grilles	0.29	0.23	0.38
		Simulated Divided Light Grilles	0.29	0.21	0.34
		Finelight Grilles	0.30	0.21	0.34
		Full Divided Light Grilles	0.31	0.21	0.34
	Low-E4 Sun	Without Grilles	0.33	0.15	0.22
		Simulated Divided Light Grilles	0.33	0.13	0.19
		Finelight Grilles	0.34	0.13	0.19
		Full Divided Light Grilles	0.33	0.13	0.19
	Low-E4 SmartSun™	Without Grilles	0.32	0.16	0.35
		Simulated Divided Light Grilles	0.32	0.14	0.31
		Finelight Grilles	0.33	0.14	0.31
		Full Divided Light Grilles	0.33	0.14	0.31
	Low-E4 SmartSun w/HeatLock	Without Grilles	0.29	0.15	0.34
		Simulated Divided Light Grilles	0.29	0.14	0.30
		Finelight Grilles	0.30	0.14	0.30
		Full Divided Light Grilles	0.31	0.14	0.30

* "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 directly transmitted, as well as 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 Light 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 November 2022. 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 use of tempered glass, different grille options, glass with capillary breather tubes for high altitudes, etc.
 • Values are for single units with given pane thickness and 3/4" (19 mm) grilles for windows and 1" (25 mm) grilles for door products.

A-SERIES PRODUCT PERFORMANCE



Andersen® NFRC Certified Total Unit Performance – Triple-Pane Glass

For current performance information, please visit nfrf.org.

Andersen® Product	High-Performance Triple-Pane Glass Type	U-Factor ¹	SHGC ²	VT ³	
A-Series Casement Windows AND-N-86	Low-E4*	Without Grilles	0.25	0.25	0.41
		Simulated Divided Light Grilles	0.25	0.23	0.37
		Finelight™ Grilles	0.25	0.23	0.37
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced	Without Grilles	0.21	0.24	0.40
		Simulated Divided Light Grilles	0.21	0.22	0.36
		Finelight Grilles	0.22	0.22	0.36
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced w/HeatLock	Without Grilles	0.20	0.23	0.39
		Simulated Divided Light Grilles	0.20	0.21	0.35
		Finelight Grilles	0.20	0.21	0.35
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun™	Without Grilles	0.24	0.17	0.37
		Simulated Divided Light Grilles	0.24	0.15	0.34
		Finelight Grilles	0.25	0.15	0.34
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced	Without Grilles	0.21	0.16	0.36
		Simulated Divided Light Grilles	0.21	0.15	0.32
		Finelight Grilles	0.21	0.15	0.32
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced w/HeatLock	Without Grilles	0.20	0.16	0.35
		Simulated Divided Light Grilles	0.20	0.14	0.32
		Finelight Grilles	0.20	0.14	0.32
		Full Divided Light Grilles	-	-	-
A-Series Awning Windows AND-N-87	Low-E4*	Without Grilles	0.25	0.24	0.40
		Simulated Divided Light Grilles	0.25	0.22	0.36
		Finelight™ Grilles	0.25	0.22	0.36
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced	Without Grilles	0.22	0.23	0.38
		Simulated Divided Light Grilles	0.22	0.21	0.35
		Finelight Grilles	0.22	0.21	0.35
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced w/HeatLock	Without Grilles	0.20	0.22	0.38
		Simulated Divided Light Grilles	0.20	0.20	0.34
		Finelight Grilles	0.20	0.20	0.34
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun™	Without Grilles	0.24	0.16	0.36
		Simulated Divided Light Grilles	0.24	0.15	0.32
		Finelight Grilles	0.25	0.15	0.32
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced	Without Grilles	0.22	0.16	0.35
		Simulated Divided Light Grilles	0.22	0.14	0.31
		Finelight Grilles	0.22	0.14	0.31
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced w/HeatLock	Without Grilles	0.20	0.15	0.34
		Simulated Divided Light Grilles	0.20	0.14	0.30
		Finelight Grilles	0.20	0.14	0.30
		Full Divided Light Grilles	-	-	-
A-Series Double-Hung Windows AND-N-91	Low-E4*	Without Grilles	0.26	0.28	0.47
		Simulated Divided Light Grilles	0.26	0.25	0.42
		Finelight™ Grilles	0.26	0.25	0.42
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced	Without Grilles	0.22	0.27	0.46
		Simulated Divided Light Grilles	0.22	0.25	0.40
		Finelight Grilles	0.23	0.25	0.40
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced w/HeatLock	Without Grilles	0.20	0.26	0.44
		Simulated Divided Light Grilles	0.20	0.23	0.39
		Finelight Grilles	0.21	0.23	0.39
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun™	Without Grilles	0.26	0.19	0.43
		Simulated Divided Light Grilles	0.26	0.17	0.38
		Finelight Grilles	0.26	0.17	0.38
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced	Without Grilles	0.22	0.18	0.41
		Simulated Divided Light Grilles	0.22	0.16	0.36
		Finelight Grilles	0.22	0.16	0.36
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced w/HeatLock	Without Grilles	0.20	0.18	0.40
		Simulated Divided Light Grilles	0.20	0.16	0.36
		Finelight Grilles	0.21	0.16	0.36
		Full Divided Light Grilles	-	-	-

Andersen® Product	High-Performance Triple-Pane Glass Type	U-Factor ¹	SHGC ²	VT ³	
A-Series Picture Windows AND-N-88	Low-E4*	Without Grilles	0.24	0.29	0.49
		Simulated Divided Light Grilles	0.24	0.26	0.43
		Finelight™ Grilles	0.24	0.26	0.43
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced	Without Grilles	0.20	0.28	0.47
		Simulated Divided Light Grilles	0.20	0.25	0.42
		Finelight Grilles	0.20	0.25	0.42
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced w/HeatLock	Without Grilles	0.18	0.27	0.46
		Simulated Divided Light Grilles	0.18	0.24	0.41
		Finelight Grilles	0.18	0.24	0.41
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun™	Without Grilles	0.23	0.20	0.44
		Simulated Divided Light Grilles	0.23	0.18	0.39
		Finelight Grilles	0.24	0.18	0.39
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced	Without Grilles	0.20	0.19	0.42
		Simulated Divided Light Grilles	0.20	0.17	0.38
		Finelight Grilles	0.20	0.17	0.38
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced w/HeatLock	Without Grilles	0.18	0.18	0.41
		Simulated Divided Light Grilles	0.18	0.17	0.37
		Finelight Grilles	0.18	0.17	0.37
		Full Divided Light Grilles	-	-	-
A-Series Venting Transom Windows AND-N-90	Low-E4*	Without Grilles	0.25	0.25	0.42
		Simulated Divided Light Grilles	0.25	0.23	0.38
		Finelight™ Grilles	0.25	0.23	0.38
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced	Without Grilles	0.22	0.24	0.40
		Simulated Divided Light Grilles	0.22	0.22	0.36
		Finelight Grilles	0.22	0.22	0.36
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced w/HeatLock	Without Grilles	0.20	0.23	0.39
		Simulated Divided Light Grilles	0.20	0.21	0.36
		Finelight Grilles	0.20	0.21	0.36
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun™	Without Grilles	0.25	0.17	0.38
		Simulated Divided Light Grilles	0.25	0.15	0.34
		Finelight Grilles	0.25	0.15	0.34
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced	Without Grilles	0.22	0.16	0.36
		Simulated Divided Light Grilles	0.22	0.15	0.33
		Finelight Grilles	0.22	0.15	0.33
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced w/HeatLock	Without Grilles	0.20	0.16	0.36
		Simulated Divided Light Grilles	0.20	0.14	0.32
		Finelight Grilles	0.20	0.14	0.32
		Full Divided Light Grilles	-	-	-

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*“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/nfrf 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 directly transmitted, as well as 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 Light 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 November 2022. 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 use of tempered glass, different grille options, glass with capillary breather tubes for high altitudes, etc.
 • Values are for single units with given pane thickness and 3/4" (19 mm) grilles for windows and door products.

A-SERIES PRODUCT PERFORMANCE



Andersen® NFRC Certified Total Unit Performance – Triple-Pane Glass (continued)

For current performance information, please visit nfr.org.

Andersen® Product	High-Performance Triple-Pane Glass Type	U-Factor ¹	SHGC ²	VT ³	
A-Series Fixed Transom Windows AND-N-89	Low-E4*	Without Grilles	0.24	0.29	0.50
		Simulated Divided Light Grilles	0.24	0.26	0.44
		Finelight™ Grilles	0.24	0.26	0.44
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced	Without Grilles	0.20	0.28	0.48
		Simulated Divided Light Grilles	0.20	0.26	0.42
		Finelight Grilles	0.20	0.26	0.42
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced w/HeatLock®	Without Grilles	0.18	0.27	0.47
		Simulated Divided Light Grilles	0.18	0.24	0.41
		Finelight Grilles	0.18	0.24	0.41
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun™	Without Grilles	0.23	0.20	0.45
		Simulated Divided Light Grilles	0.23	0.18	0.40
		Finelight Grilles	0.24	0.18	0.40
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced	Without Grilles	0.20	0.19	0.43
		Simulated Divided Light Grilles	0.20	0.17	0.38
		Finelight Grilles	0.20	0.17	0.38
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced w/HeatLock	Without Grilles	0.18	0.18	0.42
		Simulated Divided Light Grilles	0.18	0.17	0.37
		Finelight Grilles	0.18	0.17	0.37
		Full Divided Light Grilles	-	-	-
A-Series Specialty Windows Direct-Set AND-N-126	Low-E4*	Without Grilles	0.22	0.33	0.56
		Simulated Divided Light Grilles	0.22	0.29	0.50
		Finelight™ Grilles	0.23	0.29	0.50
		Full Divided Light Grilles	0.23	0.29	0.50
	Low-E4 Enhanced	Without Grilles	0.18	0.32	0.53
		Simulated Divided Light Grilles	0.18	0.29	0.48
		Finelight Grilles	0.18	0.29	0.48
		Full Divided Light Grilles	0.18	0.29	0.48
	Low-E4 Enhanced w/HeatLock®	Without Grilles	0.16	0.30	0.52
		Simulated Divided Light Grilles	0.16	0.28	0.47
		Finelight Grilles	0.16	0.28	0.47
		Full Divided Light Grilles	0.17	0.28	0.47
	Low-E4 SmartSun™	Without Grilles	0.22	0.22	0.50
		Simulated Divided Light Grilles	0.22	0.20	0.45
		Finelight Grilles	0.23	0.20	0.45
		Full Divided Light Grilles	0.23	0.20	0.45
	Low-E4 SmartSun Enhanced	Without Grilles	0.17	0.21	0.48
		Simulated Divided Light Grilles	0.17	0.19	0.43
		Finelight Grilles	0.17	0.19	0.43
		Full Divided Light Grilles	0.18	0.19	0.43
	Low-E4 SmartSun Enhanced w/HeatLock	Without Grilles	0.16	0.20	0.47
		Simulated Divided Light Grilles	0.16	0.18	0.42
		Finelight Grilles	0.16	0.18	0.42
		Full Divided Light Grilles	0.17	0.18	0.42
A-Series Specialty Windows Sash-Set AND-N-128	Low-E4*	Without Grilles	0.23	0.29	0.50
		Simulated Divided Light Grilles	0.23	0.27	0.44
		Finelight™ Grilles	0.24	0.27	0.44
		Full Divided Light Grilles	0.24	0.27	0.44
	Low-E4 Enhanced	Without Grilles	0.19	0.29	0.48
		Simulated Divided Light Grilles	0.19	0.26	0.43
		Finelight Grilles	0.19	0.26	0.43
		Full Divided Light Grilles	0.19	0.26	0.43
	Low-E4 Enhanced w/HeatLock®	Without Grilles	0.17	0.28	0.47
		Simulated Divided Light Grilles	0.17	0.25	0.42
		Finelight Grilles	0.18	0.25	0.42
		Full Divided Light Grilles	0.18	0.25	0.42
	Low-E4 SmartSun™	Without Grilles	0.23	0.19	0.45
		Simulated Divided Light Grilles	0.23	0.18	0.40
		Finelight Grilles	0.23	0.18	0.40
		Full Divided Light Grilles	0.23	0.18	0.40
	Low-E4 SmartSun Enhanced	Without Grilles	0.18	0.19	0.43
		Simulated Divided Light Grilles	0.18	0.17	0.39
		Finelight Grilles	0.19	0.17	0.39
		Full Divided Light Grilles	0.19	0.17	0.39
	Low-E4 SmartSun Enhanced w/HeatLock	Without Grilles	0.17	0.18	0.42
		Simulated Divided Light Grilles	0.17	0.17	0.38
		Finelight Grilles	0.17	0.17	0.38
		Full Divided Light Grilles	0.18	0.17	0.38

Andersen® Product	High-Performance Triple-Pane Glass Type	U-Factor ¹	SHGC ²	VT ³	
A-Series Gliding Patio Doors Traditional Panels AND-N-99	Low-E4*	Without Grilles	0.28	0.25	0.41
		Simulated Divided Light Grilles	0.28	0.22	0.35
		Finelight™ Grilles	0.28	0.22	0.35
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced	Without Grilles	0.25	0.24	0.40
		Simulated Divided Light Grilles	0.25	0.21	0.34
		Finelight Grilles	0.25	0.21	0.34
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced w/HeatLock®	Without Grilles	0.23	0.23	0.39
		Simulated Divided Light Grilles	0.23	0.20	0.33
		Finelight Grilles	0.23	0.20	0.33
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun™	Without Grilles	0.27	0.17	0.37
		Simulated Divided Light Grilles	0.27	0.15	0.32
		Finelight Grilles	0.28	0.15	0.32
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced	Without Grilles	0.24	0.16	0.36
		Simulated Divided Light Grilles	0.24	0.14	0.31
		Finelight Grilles	0.25	0.14	0.31
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced w/HeatLock	Without Grilles	0.23	0.16	0.35
		Simulated Divided Light Grilles	0.23	0.14	0.30
		Finelight Grilles	0.23	0.14	0.30
		Full Divided Light Grilles	-	-	-
A-Series Gliding Patio Doors Contemporary Panels AND-N-212	Low-E4*	Without Grilles	0.27	0.26	0.44
		Simulated Divided Light Grilles	0.27	0.23	0.38
		Finelight™ Grilles	0.28	0.23	0.38
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced	Without Grilles	0.24	0.26	0.42
		Simulated Divided Light Grilles	0.24	0.22	0.36
		Finelight Grilles	0.24	0.22	0.36
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced w/HeatLock®	Without Grilles	0.22	0.24	0.41
		Simulated Divided Light Grilles	0.22	0.22	0.36
		Finelight Grilles	0.22	0.22	0.36
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun™	Without Grilles	0.27	0.18	0.39
		Simulated Divided Light Grilles	0.27	0.16	0.34
		Finelight Grilles	0.27	0.16	0.34
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced	Without Grilles	0.24	0.17	0.38
		Simulated Divided Light Grilles	0.24	0.15	0.33
		Finelight Grilles	0.24	0.15	0.33
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced w/HeatLock	Without Grilles	0.22	0.16	0.37
		Simulated Divided Light Grilles	0.22	0.15	0.32
		Finelight Grilles	0.22	0.15	0.32
		Full Divided Light Grilles	-	-	-

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* "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 directly transmitted, as well as 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 Light 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 November 2022. 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 use of tempered glass, different grille options, glass with capillary breather tubes for high altitudes, etc.
 • Values are for single units with given pane thickness and 3/4" (19 mm) grilles for windows and door products.

A-SERIES PRODUCT PERFORMANCE



Andersen® NFRC Certified Total Unit Performance – Triple-Pane Glass (continued)

For current performance information, please visit nfr.org.

Andersen® Product	High-Performance Triple-Pane Glass Type	U-Factor ¹	SHGC ²	VT ³	
A-Series Hinged Inswing Patio Doors Traditional Panels AND-N-92	Low-E4*	Without Grilles	0.28	0.22	0.37
		Simulated Divided Light Grilles	0.28	0.19	0.32
		Finelight™ Grilles	0.28	0.19	0.32
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced	Without Grilles	0.25	0.22	0.36
		Simulated Divided Light Grilles	0.25	0.19	0.31
		Finelight Grilles	0.26	0.19	0.31
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced w/HeatLock™	Without Grilles	0.24	0.21	0.35
		Simulated Divided Light Grilles	0.24	0.18	0.30
		Finelight Grilles	0.24	0.18	0.30
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun™	Without Grilles	0.28	0.15	0.34
		Simulated Divided Light Grilles	0.28	0.13	0.29
		Finelight Grilles	0.29	0.13	0.29
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced	Without Grilles	0.25	0.15	0.32
		Simulated Divided Light Grilles	0.25	0.13	0.28
		Finelight Grilles	0.26	0.13	0.28
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced w/HeatLock	Without Grilles	0.24	0.14	0.32
		Simulated Divided Light Grilles	0.24	0.12	0.27
		Finelight Grilles	0.24	0.12	0.27
		Full Divided Light Grilles	-	-	-
A-Series Hinged Inswing Patio Doors Contemporary Panels AND-N-211	Low-E4*	Without Grilles	0.28	0.24	0.40
		Simulated Divided Light Grilles	0.28	0.21	0.34
		Finelight™ Grilles	0.28	0.21	0.34
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced	Without Grilles	0.25	0.23	0.38
		Simulated Divided Light Grilles	0.25	0.20	0.33
		Finelight Grilles	0.25	0.20	0.33
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced w/HeatLock™	Without Grilles	0.23	0.22	0.37
		Simulated Divided Light Grilles	0.23	0.19	0.32
		Finelight Grilles	0.24	0.19	0.32
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun™	Without Grilles	0.27	0.16	0.36
		Simulated Divided Light Grilles	0.27	0.14	0.31
		Finelight Grilles	0.29	0.14	0.31
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced	Without Grilles	0.25	0.15	0.34
		Simulated Divided Light Grilles	0.25	0.14	0.29
		Finelight Grilles	0.25	0.14	0.29
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced w/HeatLock	Without Grilles	0.23	0.15	0.33
		Simulated Divided Light Grilles	0.23	0.13	0.29
		Finelight Grilles	0.23	0.13	0.29
		Full Divided Light Grilles	-	-	-
A-Series Hinged Outswing Patio Doors Traditional Panels AND-N-93	Low-E4*	Without Grilles	0.28	0.23	0.37
		Simulated Divided Light Grilles	0.28	0.20	0.32
		Finelight™ Grilles	0.28	0.20	0.32
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced	Without Grilles	0.25	0.22	0.36
		Simulated Divided Light Grilles	0.25	0.19	0.31
		Finelight Grilles	0.25	0.19	0.31
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced w/HeatLock™	Without Grilles	0.24	0.21	0.35
		Simulated Divided Light Grilles	0.24	0.19	0.30
		Finelight Grilles	0.24	0.19	0.30
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun™	Without Grilles	0.28	0.15	0.34
		Simulated Divided Light Grilles	0.28	0.14	0.29
		Finelight Grilles	0.28	0.14	0.29
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced	Without Grilles	0.25	0.15	0.32
		Simulated Divided Light Grilles	0.25	0.13	0.28
		Finelight Grilles	0.25	0.13	0.28
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced w/HeatLock	Without Grilles	0.23	0.14	0.32
		Simulated Divided Light Grilles	0.23	0.13	0.27
		Finelight Grilles	0.24	0.13	0.27
		Full Divided Light Grilles	-	-	-

Andersen® Product	High-Performance Triple-Pane Glass Type	U-Factor ¹	SHGC ²	VT ³	
A-Series Hinged Outswing Patio Doors Contemporary Panels AND-N-210	Low-E4*	Without Grilles	0.27	0.24	0.40
		Simulated Divided Light Grilles	0.27	0.21	0.34
		Finelight™ Grilles	0.28	0.21	0.34
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced	Without Grilles	0.24	0.23	0.38
		Simulated Divided Light Grilles	0.24	0.20	0.33
		Finelight Grilles	0.25	0.20	0.33
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced w/HeatLock™	Without Grilles	0.23	0.22	0.37
		Simulated Divided Light Grilles	0.23	0.20	0.32
		Finelight Grilles	0.23	0.20	0.32
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun™	Without Grilles	0.27	0.16	0.36
		Simulated Divided Light Grilles	0.27	0.14	0.31
		Finelight Grilles	0.28	0.14	0.31
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced	Without Grilles	0.24	0.16	0.34
		Simulated Divided Light Grilles	0.24	0.14	0.29
		Finelight Grilles	0.24	0.14	0.29
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced w/HeatLock	Without Grilles	0.23	0.15	0.33
		Simulated Divided Light Grilles	0.23	0.13	0.29
		Finelight Grilles	0.23	0.13	0.29
		Full Divided Light Grilles	-	-	-
A-Series Patio Door Sidelight Transoms Direct-Set AND-N-96	Low-E4*	Without Grilles	0.25	0.31	0.53
		Simulated Divided Light Grilles	0.25	0.29	0.48
		Finelight™ Grilles	0.25	0.29	0.48
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced	Without Grilles	0.21	0.30	0.51
		Simulated Divided Light Grilles	0.21	0.28	0.46
		Finelight Grilles	0.21	0.28	0.46
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced w/HeatLock™	Without Grilles	0.19	0.29	0.50
		Simulated Divided Light Grilles	0.19	0.27	0.45
		Finelight Grilles	0.19	0.27	0.45
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun™	Without Grilles	0.24	0.21	0.48
		Simulated Divided Light Grilles	0.24	0.19	0.43
		Finelight Grilles	0.25	0.19	0.43
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced	Without Grilles	0.20	0.20	0.46
		Simulated Divided Light Grilles	0.20	0.19	0.42
		Finelight Grilles	0.20	0.19	0.42
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced w/HeatLock	Without Grilles	0.19	0.20	0.45
		Simulated Divided Light Grilles	0.19	0.18	0.41
		Finelight Grilles	0.19	0.18	0.41
		Full Divided Light Grilles	-	-	-

continued on next page

*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 directly transmitted, as well as 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 Light 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 November 2022. 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 use of tempered glass, different grille options, glass with capillary breather tubes for high altitudes, etc.
 • Values are for single units with given pane thickness and 3/4" (19 mm) grilles for windows and door products.

A-SERIES PRODUCT PERFORMANCE



Andersen® NFRC Certified Total Unit Performance – Triple-Pane Glass (continued)

For current performance information, please visit nfr.org.

Andersen® Product	High-Performance Triple-Pane Glass Type	U-Factor ¹	SHGC ²	VT ³	
A-Series Patio Door Sidelight Transoms Sash-Set AND-N-95	Low-E4*	Without Grilles	0.27	0.24	0.40
		Simulated Divided Light Grilles	0.27	0.22	0.35
		Finelight™ Grilles	0.27	0.22	0.35
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced	Without Grilles	0.24	0.23	0.38
		Simulated Divided Light Grilles	0.24	0.21	0.34
		Finelight Grilles	0.24	0.21	0.34
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced w/HeatLock	Without Grilles	0.22	0.22	0.37
		Simulated Divided Light Grilles	0.22	0.20	0.33
		Finelight Grilles	0.22	0.20	0.33
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun™	Without Grilles	0.26	0.16	0.36
		Simulated Divided Light Grilles	0.26	0.15	0.32
		Finelight Grilles	0.27	0.15	0.32
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced	Without Grilles	0.24	0.16	0.34
		Simulated Divided Light Grilles	0.24	0.14	0.31
		Finelight Grilles	0.24	0.14	0.31
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced w/HeatLock	Without Grilles	0.22	0.15	0.33
		Simulated Divided Light Grilles	0.22	0.14	0.30
		Finelight Grilles	0.22	0.14	0.30
		Full Divided Light Grilles	-	-	-
A-Series Patio Door Transoms Direct-Set AND-N-96	Low-E4*	Without Grilles	0.25	0.31	0.53
		Simulated Divided Light Grilles	0.25	0.29	0.48
		Finelight™ Grilles	0.25	0.29	0.48
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced	Without Grilles	0.21	0.30	0.51
		Simulated Divided Light Grilles	0.21	0.28	0.46
		Finelight Grilles	0.21	0.28	0.46
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced w/HeatLock	Without Grilles	0.19	0.29	0.50
		Simulated Divided Light Grilles	0.19	0.27	0.45
		Finelight Grilles	0.19	0.27	0.45
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun™	Without Grilles	0.24	0.21	0.48
		Simulated Divided Light Grilles	0.24	0.19	0.43
		Finelight Grilles	0.25	0.19	0.43
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced	Without Grilles	0.20	0.20	0.46
		Simulated Divided Light Grilles	0.20	0.19	0.42
		Finelight Grilles	0.20	0.19	0.42
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced w/HeatLock	Without Grilles	0.19	0.20	0.45
		Simulated Divided Light Grilles	0.19	0.18	0.41
		Finelight Grilles	0.19	0.18	0.41
		Full Divided Light Grilles	-	-	-
A-Series Patio Door Transoms Sash-Set AND-N-95	Low-E4*	Without Grilles	0.27	0.23	0.38
		Simulated Divided Light Grilles	0.27	0.21	0.33
		Finelight™ Grilles	0.27	0.21	0.33
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced	Without Grilles	0.24	0.22	0.36
		Simulated Divided Light Grilles	0.24	0.20	0.32
		Finelight Grilles	0.24	0.20	0.32
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced w/HeatLock	Without Grilles	0.23	0.21	0.35
		Simulated Divided Light Grilles	0.23	0.19	0.31
		Finelight Grilles	0.23	0.19	0.31
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun™	Without Grilles	0.27	0.15	0.34
		Simulated Divided Light Grilles	0.27	0.14	0.30
		Finelight Grilles	0.27	0.14	0.30
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced	Without Grilles	0.24	0.15	0.33
		Simulated Divided Light Grilles	0.24	0.14	0.29
		Finelight Grilles	0.24	0.14	0.29
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced w/HeatLock	Without Grilles	0.23	0.15	0.32
		Simulated Divided Light Grilles	0.23	0.13	0.28
		Finelight Grilles	0.23	0.13	0.28
		Full Divided Light Grilles	-	-	-

Andersen® Product	High-Performance Triple-Pane Glass Type	U-Factor ¹	SHGC ²	VT ³	
A-Series Patio Door Sidelights Traditional Panels AND-N-94	Low-E4*	Without Grilles	0.28	0.22	0.35
		Simulated Divided Light Grilles	0.28	0.20	0.31
		Finelight™ Grilles	0.28	0.20	0.31
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced	Without Grilles	0.25	0.21	0.34
		Simulated Divided Light Grilles	0.25	0.19	0.30
		Finelight Grilles	0.25	0.19	0.30
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced w/HeatLock	Without Grilles	0.24	0.20	0.33
		Simulated Divided Light Grilles	0.24	0.18	0.30
		Finelight Grilles	0.24	0.18	0.30
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun™	Without Grilles	0.27	0.15	0.32
		Simulated Divided Light Grilles	0.27	0.13	0.28
		Finelight Grilles	0.28	0.13	0.28
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced	Without Grilles	0.25	0.14	0.31
		Simulated Divided Light Grilles	0.25	0.13	0.27
		Finelight Grilles	0.25	0.13	0.27
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced w/HeatLock	Without Grilles	0.23	0.14	0.30
		Simulated Divided Light Grilles	0.23	0.13	0.27
		Finelight Grilles	0.24	0.13	0.27
		Full Divided Light Grilles	-	-	-
A-Series Patio Door Sidelights Contemporary Panels AND-N-213	Low-E4*	Without Grilles	0.28	0.20	0.33
		Simulated Divided Light Grilles	0.28	0.18	0.29
		Finelight™ Grilles	0.29	0.18	0.29
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced	Without Grilles	0.26	0.20	0.32
		Simulated Divided Light Grilles	0.26	0.18	0.28
		Finelight Grilles	0.26	0.18	0.28
		Full Divided Light Grilles	-	-	-
	Low-E4 Enhanced w/HeatLock	Without Grilles	0.24	0.19	0.31
		Simulated Divided Light Grilles	0.24	0.17	0.27
		Finelight Grilles	0.25	0.17	0.27
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun™	Without Grilles	0.28	0.14	0.30
		Simulated Divided Light Grilles	0.28	0.13	0.26
		Finelight Grilles	0.28	0.13	0.26
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced	Without Grilles	0.26	0.13	0.29
		Simulated Divided Light Grilles	0.26	0.12	0.25
		Finelight Grilles	0.26	0.12	0.25
		Full Divided Light Grilles	-	-	-
	Low-E4 SmartSun Enhanced w/HeatLock	Without Grilles	0.24	0.13	0.28
		Simulated Divided Light Grilles	0.24	0.12	0.25
		Finelight Grilles	0.25	0.12	0.25
		Full Divided Light Grilles	-	-	-

* "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 directly transmitted, as well as 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 Light Transmittance is measured over the 380 to 760 nanometer portion of the solar spectrum.
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 • Values are for single units with given pane thickness and 3/4" (19 mm) grilles for windows and door products.

A-SERIES PRODUCT PERFORMANCE



About the Label

Look for this certification label on every window and patio door you buy. The NFRC section was designed by the National Fenestration Rating Council to provide accurate information that helps you promote the energy efficiency of the homes you build. These ratings allow you – and your customers – to measure and compare the energy performance of similar products. If the product does not have this label, the NFRC has not verified its claims.

About the NFRC

The National Fenestration Rating Council (NFRC) is a nonpartisan coalition of professionals whose purpose is to provide fair, accurate and credible energy performance ratings for fenestration products. NFRC's membership includes manufacturers, suppliers, designers, specifiers, utility companies, government agencies and other building industry representatives.

Andersen Corporation is a founding member of the NFRC and continues to support its work by providing fair, accurate and credible energy performance ratings to consumers and the building industry. If you have any questions about the NFRC, its program or energy performance ratings, write them at: NFRC, 6305 Ivy Lane, Suite 410, Greenbelt, MD 20770. Phone: 301-589-1776. Website: nrc.org

U-Factor indicates how well a product prevents heat from escaping (the lower the number, the better).

Visible Transmittance refers to how much visible light comes through a product (the closer to 1.0, the more light is transmitted).

WDMA Hallmark Certification verifies the performance ratings of this product were tested by an independent testing laboratory and verified by a third-party certification program.

Test Standards

ENERGY STAR Version 7.0 is coming October 23, 2023. For more details, visit andersenwindows.com/energystar.

Energy Rating (ER) represents “Energy Rating” and is a rating used in Canada for product comparison purposes (the higher the ER number, the more energy saved during the heating season).

ENERGY STAR® Climate Zone Map is based on U-Factor and solar heat gain coefficient criteria for specific ENERGY STAR climate zones within the United States and Canada. The shading of the map shows which climate zone(s) a particular product and glass type is ENERGY STAR certified in.

Solar Heat Gain Coefficient measures how well a product blocks heat caused by sunlight (the lower the number, the more it will help reduce the use of air conditioning and as a result, reduce electrical bills and energy use).

Performance Grade (PG) and Design Pressure (DP) Ratings

Glass Construction used with this product type.

Do not remove until final code inspection. Save label for future reference.

ENERGY STAR® Certified in Highlighted Regions
Certifié ENERGY STAR dans les régions en surbrillance

Canada
energystar.gc.ca

ENERGY STAR

U.S. / É.U.
energystar.gov

■ = Certified / Certifié

ER/RE 20

National Fenestration Rating Council®
CERTIFIED

A-Series Casement Window
AND-N-86-03233-00001
Composite/Wood Combination
Dual-Pane Low-E SmartSun HeatLock Glazing with Argon
Product Type: Casement

ENERGY PERFORMANCE RATINGS

U-Factor 0.24 1.36 <small>(U.S./IP) (Metric/SI)</small>	Solar Heat Gain Coefficient 0.17
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ADDITIONAL PERFORMANCE RATINGS

Visible Transmittance 0.40	■
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Manufacturer stipulates that these ratings conform to applicable NFRC procedures for determining whole product performance. NFRC ratings are determined for a fixed set of environmental conditions and a specific product size. NFRC does not recommend any product and does not warrant the suitability of any product for any specific use. Consult manufacturer's literature for other product performance information.
www.nfrc.org

WINDOW & DOOR MANUFACTURERS ASSOCIATION
Hallmark Certified
www.wdma.com

License: 129-H-816
Andersen Corporation
A-Series Casement Window
Manufacturer stipulates Hallmark Certification as indicated below.

STANDARD	RATING
AMA/WDMA/CSA 101/LS.2/A440-11	Class LC-PG50 Size Tested 35.3" x 71.3" DP=50/50
AMA/WDMA/CSA 101/LS.2/A440-08	Class H-LC50 Size Tested 35.3" x 71.3" DP=50/50
AMA/WDMA/CSA 101/LS.2/A440-08 A440S1-09	Class LC-PG50 - 895 mm x 1803 mm Positive/Negative Design Pressure (DP) = +2440/-2440 Pa Water Penetration Resistance Test Pressure = 360 Pa Canadian Air Infiltration/Exfiltration = A3

FL 15551

Glazing: 3.0mm AN outer/3.0mm AN inner

⚠ WARNING

This product can expose you to chemicals including titanium dioxide, which is known in the state of California to cause cancer, and methanol, which is known to the state of California to cause birth defects or other reproductive harm.
For more information go to www.P65Warnings.ca.gov

Meets or exceeds CEC & IECC Air Infiltration Requirements of 0.2 CFM/sq.ft. or lower.
WDMA Hallmark Certification Program. Complies with HUD UM Bulletin No. 111.

* 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.
 * "ENERGY STAR" is a registered trademark of the U.S. Environmental Protection Agency.

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