StormWATCH PROTECTION

400 SERIES PRODUCT PERFORMANCE

ANDERSEN WINDOWS & DOORS

Andersen® NFRC Certified Total Unit Performance

*For current performance information, please visit **nfrc.org**.*

Andersen® Product		Impact-Resistant Glass Type	U-Factor[1]	SHGC[2]	VT[3]
400 Series Casement Windows AND-N-1	IMPACT-RESISTANT GLASS	Low-E4® Without Grilles	0.33	0.32	0.54
		Low-E4® Simulated Divided Light Grilles	0.33	0.29	0.49
		Low-E4® Finelight™ Grilles	0.34	0.29	0.49
		Low-E4® Full Divided Light Grilles	0.34	0.29	0.49
		Low-E4 w/HeatLock® Without Grilles	0.28	0.31	0.53
		Low-E4 w/HeatLock® Simulated Divided Light Grilles	0.28	0.28	0.48
		Low-E4 w/HeatLock® Finelight Grilles	0.29	0.28	0.48
		Low-E4 w/HeatLock® Full Divided Light Grilles	0.30	0.28	0.48
		Low-E4 Sun Without Grilles	0.33	0.20	0.30
		Low-E4 Sun Simulated Divided Light Grilles	0.33	0.19	0.27
		Low-E4 Sun Finelight Grilles	0.34	0.19	0.27
		Low-E4 Sun Full Divided Light Grilles	0.34	0.19	0.27
		Low-E4 SmartSun™ Without Grilles	0.32	0.22	0.48
		Low-E4 SmartSun™ Simulated Divided Light Grilles	0.32	0.20	0.44
		Low-E4 SmartSun™ Finelight Grilles	0.33	0.20	0.44
		Low-E4 SmartSun™ Full Divided Light Grilles	0.33	0.20	0.44
		Low-E4 SmartSun w/HeatLock Without Grilles	0.28	0.21	0.47
		Low-E4 SmartSun w/HeatLock Simulated Divided Light Grilles	0.28	0.19	0.43
		Low-E4 SmartSun w/HeatLock Finelight Grilles	0.28	0.19	0.43
		Low-E4 SmartSun w/HeatLock Full Divided Light Grilles	0.30	0.19	0.43
		Monolithic SmartSun Clear - Without Grilles	0.78	0.28	0.46
		Monolithic SmartSun Clear - Simulated Divided Light Grilles	0.78	0.26	0.42
		Monolithic SmartSun Gray - Without Grilles	0.78	0.21	0.23
		Monolithic SmartSun Gray - Simulated Divided Light Grille	0.78	0.19	0.21
400 Series Awning Windows AND-N-2	IMPACT-RESISTANT GLASS	Low-E4® Without Grilles	0.33	0.31	0.52
		Low-E4® Simulated Divided Light Grilles	0.33	0.28	0.47
		Low-E4® Finelight™ Grilles	0.34	0.28	0.47
		Low-E4® Full Divided Light Grilles	0.34	0.28	0.47
		Low-E4 w/HeatLock® Without Grilles	0.30	0.30	0.51
		Low-E4 w/HeatLock® Simulated Divided Light Grilles	0.30	0.27	0.46
		Low-E4 w/HeatLock® Finelight Grilles	0.33	0.27	0.46
		Low-E4 w/HeatLock® Full Divided Light Grilles	0.33	0.27	0.46
		Low-E4 Sun Without Grilles	0.33	0.20	0.29
		Low-E4 Sun Simulated Divided Light Grilles	0.33	0.18	0.26
		Low-E4 Sun Finelight Grilles	0.34	0.18	0.26
		Low-E4 Sun Full Divided Light Grilles	0.34	0.18	0.26
		Low-E4 SmartSun™ Without Grilles	0.32	0.21	0.47
		Low-E4 SmartSun™ Simulated Divided Light Grilles	0.32	0.19	0.42
		Low-E4 SmartSun™ Finelight Grilles	0.33	0.19	0.42
		Low-E4 SmartSun™ Full Divided Light Grilles	0.33	0.19	0.42
		Low-E4 SmartSun w/HeatLock Without Grilles	0.30	0.20	0.46
		Low-E4 SmartSun w/HeatLock Simulated Divided Light Grilles	0.30	0.19	0.41
		Low-E4 SmartSun w/HeatLock Finelight Grilles	0.32	0.19	0.41
		Low-E4 SmartSun w/HeatLock Full Divided Light Grilles	0.32	0.19	0.41
		Monolithic SmartSun Clear - Without Grilles	0.80	0.26	0.45
		Monolithic SmartSun Clear - Simulated Divided Light Grilles	0.80	0.23	0.41
		Monolithic SmartSun Gray - Without Grilles	0.80	0.20	0.22
		Monolithic SmartSun Gray - Simulated Divided Light Grille	0.80	0.19	0.20
400 Series Casement/Awning Picture & Transom Windows AND-N-54	IMPACT-RESISTANT GLASS	Low-E4® Without Grilles	0.25	0.34	0.57
		Low-E4® Simulated Divided Light Grilles	0.25	0.31	0.51
		Low-E4® Finelight™ Grilles	0.25	0.31	0.51
		Low-E4® Full Divided Light Grilles	0.25	0.31	0.51
		Low-E4 w/HeatLock® Without Grilles	0.21	0.33	0.55
		Low-E4 w/HeatLock® Simulated Divided Light Grilles	0.21	0.30	0.50
		Low-E4 w/HeatLock® Finelight Grilles	0.21	0.30	0.50
		Low-E4 w/HeatLock® Full Divided Light Grilles	0.23	0.30	0.50
		Low-E4 Sun Without Grilles	0.26	0.21	0.32
		Low-E4 Sun Simulated Divided Light Grilles	0.26	0.19	0.28
		Low-E4 Sun Finelight Grilles	0.26	0.19	0.28
		Low-E4 Sun Full Divided Light Grilles	0.26	0.19	0.28
		Low-E4 SmartSun™ Without Grilles	0.25	0.23	0.51
		Low-E4 SmartSun™ Simulated Divided Light Grilles	0.25	0.21	0.46
		Low-E4 SmartSun™ Finelight Grilles	0.25	0.21	0.46
		Low-E4 SmartSun™ Full Divided Light Grilles	0.25	0.21	0.46
		Low-E4 SmartSun w/HeatLock Without Grilles	0.21	0.22	0.50
		Low-E4 SmartSun w/HeatLock Simulated Divided Light Grilles	0.21	0.20	0.45
		Low-E4 SmartSun w/HeatLock Finelight Grilles	0.21	0.20	0.45
		Low-E4 SmartSun w/HeatLock Full Divided Light Grilles	0.22	0.20	0.45
		Monolithic SmartSun Clear - Without Grilles	0.78	0.30	0.50
		Monolithic SmartSun Clear - Simulated Divided Light Grilles	0.78	0.27	0.45
		Monolithic SmartSun Gray - Without Grilles	0.78	0.31	0.25
		Monolithic SmartSun Gray - Simulated Divided Light Grille	0.78	0.28	0.22

Andersen® Product		Impact-Resistant Glass Type	U-Factor[1]	SHGC[2]	VT[3]
400 Series Tilt-Wash Double-Hung Windows AND-N-24	IMPACT-RESISTANT GLASS	Low-E4® Without Grilles	0.34	0.31	0.53
		Low-E4® Simulated Divided Light Grilles	0.34	0.28	0.47
		Low-E4® Finelight™ Grilles	0.36	0.28	0.47
		Low-E4® Full Divided Light Grilles	0.35	0.28	0.47
		Low-E4 w/HeatLock® Without Grilles	0.30	0.30	0.51
		Low-E4 w/HeatLock® Simulated Divided Light Grilles	0.29	0.27	0.46
		Low-E4 w/HeatLock® Finelight Grilles	0.31	0.27	0.46
		Low-E4 w/HeatLock® Full Divided Light Grilles	0.32	0.27	0.46
		Low-E4 Sun Without Grilles	0.35	0.20	0.29
		Low-E4 Sun Simulated Divided Light Grilles	0.34	0.18	0.26
		Low-E4 Sun Finelight Grilles	0.36	0.18	0.26
		Low-E4 Sun Full Divided Light Grilles	0.36	0.18	0.26
		Low-E4 SmartSun™ Without Grilles	0.34	0.21	0.47
		Low-E4 SmartSun™ Simulated Divided Light Grilles	0.34	0.19	0.42
		Low-E4 SmartSun™ Finelight Grilles	0.35	0.19	0.42
		Low-E4 SmartSun™ Full Divided Light Grilles	0.35	0.19	0.42
		Low-E4 SmartSun w/HeatLock Without Grilles	0.29	0.20	0.46
		Low-E4 SmartSun w/HeatLock Simulated Divided Light Grilles	0.29	0.18	0.41
		Low-E4 SmartSun w/HeatLock Finelight Grilles	0.30	0.18	0.41
		Low-E4 SmartSun w/HeatLock Full Divided Light Grilles	0.31	0.18	0.41
		Monolithic SmartSun Clear - Without Grilles	0.77	0.27	0.45
		Monolithic SmartSun Clear - Simulated Divided Light Grilles	0.77	0.24	0.40
		Monolithic SmartSun Gray - Without Grilles	0.77	0.25	0.22
		Monolithic SmartSun Gray - Simulated Divided Light Grille	0.77	0.23	0.20
400 Series Tilt-Wash Transom Windows AND-N-76	IMPACT-RESISTANT GLASS	Low-E4® Without Grilles	0.27	0.31	0.54
		Low-E4® Simulated Divided Light Grilles	0.27	0.28	0.48
		Low-E4® Finelight™ Grilles	0.28	0.28	0.48
		Low-E4® Full Divided Light Grilles	0.28	0.28	0.48
		Low-E4 w/HeatLock® Without Grilles	0.23	0.31	0.53
		Low-E4 w/HeatLock® Simulated Divided Light Grilles	0.23	0.28	0.47
		Low-E4 w/HeatLock® Finelight Grilles	0.24	0.28	0.47
		Low-E4 w/HeatLock® Full Divided Light Grilles	0.25	0.28	0.47
		Low-E4 Sun Without Grilles	0.27	0.19	0.30
		Low-E4 Sun Simulated Divided Light Grilles	0.27	0.18	0.26
		Low-E4 Sun Finelight Grilles	0.28	0.18	0.26
		Low-E4 Sun Full Divided Light Grilles	0.28	0.18	0.26
		Low-E4 SmartSun™ Without Grilles	0.26	0.21	0.49
		Low-E4 SmartSun™ Simulated Divided Light Grilles	0.26	0.19	0.44
		Low-E4 SmartSun™ Finelight Grilles	0.27	0.19	0.44
		Low-E4 SmartSun™ Full Divided Light Grilles	0.27	0.19	0.44
		Low-E4 SmartSun w/HeatLock Without Grilles	0.23	0.21	0.48
		Low-E4 SmartSun w/HeatLock Simulated Divided Light Grilles	0.23	0.19	0.43
		Low-E4 SmartSun w/HeatLock Finelight Grilles	0.24	0.19	0.43
		Low-E4 SmartSun w/HeatLock Full Divided Light Grilles	0.24	0.19	0.43
		Monolithic SmartSun Clear - Without Grilles	0.79	0.27	0.47
		Monolithic SmartSun Clear - Simulated Divided Light Grilles	0.79	0.24	0.41
		Monolithic SmartSun Gray - Without Grilles	0.79	0.28	0.30
		Monolithic SmartSun Gray - Simulated Divided Light Grille	0.79	0.26	0.26

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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. 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 January 2021. 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 with capillary breather tubes for high altitudes, etc.
• Values are for single units with given pane thickness and 3/4" (19mm) grilles for windows.

400 SERIES PRODUCT PERFORMANCE

Andersen® NFRC Certified Total Unit Performance *(continued)*

*For current performance information, please visit **nfrc.org**.*

Andersen® Product	Impact-Resistant Glass Type		U-Factor[1]	SHGC[2]	VT[3]
400 Series Tilt-Wash Picture Windows AND-N-27	IMPACT-RESISTANT GLASS	Low-E4®	Without Grilles	0.31	0.33	0.55
			Simulated Divided Light Grilles	0.31	0.30	0.49
			Finelight™ Grilles	0.32	0.30	0.49
			Full Divided Light Grilles	0.32	0.30	0.49
		Low-E4 w/HeatLock®	Without Grilles	0.27	0.32	0.54
			Simulated Divided Light Grilles	0.27	0.28	0.48
			Finelight Grilles	0.28	0.28	0.48
			Full Divided Light Grilles	0.29	0.28	0.48
		Low-E4 Sun	Without Grilles	0.32	0.21	0.31
			Simulated Divided Light Grilles	0.32	0.19	0.27
			Finelight Grilles	0.33	0.19	0.27
			Full Divided Light Grilles	0.33	0.19	0.27
		Low-E4 SmartSun™	Without Grilles	0.31	0.22	0.49
			Simulated Divided Light Grilles	0.31	0.20	0.44
			Finelight Grilles	0.32	0.20	0.44
			Full Divided Light Grilles	0.32	0.20	0.44
		Low-E4 SmartSun w/HeatLock	Without Grilles	0.27	0.21	0.48
			Simulated Divided Light Grilles	0.27	0.19	0.43
			Finelight Grilles	0.27	0.19	0.43
			Full Divided Light Grilles	0.29	0.19	0.43
		Monolithic SmartSun	Clear - Without Grilles	n/a	n/a	n/a
			Clear - Simulated Divided Light Grilles	n/a	n/a	n/a
			Gray - Without Grilles	n/a	n/a	n/a
			Gray - Simulated Divided Light Grille	n/a	n/a	n/a
400 Series Casement/Awning Half Circle Windows AND-N-54	IMPACT-RESISTANT GLASS	Low-E4®	Without Grilles	0.26	0.34	0.57
			Simulated Divided Light Grilles	0.26	0.31	0.51
			Finelight™ Grilles	0.26	0.31	0.51
			Full Divided Light Grilles	0.27	0.31	0.51
		Low-E4 w/HeatLock®	Without Grilles	0.22	0.33	0.56
			Simulated Divided Light Grilles	0.22	0.30	0.50
			Finelight Grilles	0.22	0.30	0.50
			Full Divided Light Grilles	0.24	0.30	0.50
		Low-E4 Sun	Without Grilles	0.27	0.21	0.32
			Simulated Divided Light Grilles	0.27	0.19	0.28
			Finelight Grilles	0.27	0.19	0.28
			Full Divided Light Grilles	0.28	0.19	0.28
		Low-E4 SmartSun™	Without Grilles	0.26	0.23	0.51
			Simulated Divided Light Grilles	0.26	0.21	0.46
			Finelight Grilles	0.26	0.21	0.46
			Full Divided Light Grilles	0.27	0.21	0.46
		Low-E4 SmartSun w/HeatLock	Without Grilles	0.22	0.22	0.50
			Simulated Divided Light Grilles	0.22	0.20	0.45
			Finelight Grilles	0.22	0.20	0.45
			Full Divided Light Grilles	0.24	0.20	0.45
		Monolithic SmartSun	Clear - Without Grilles	0.82	0.30	0.50
			Clear - Simulated Divided Light Grilles	0.82	0.27	0.45
			Gray - Without Grilles	0.82	0.31	0.25
			Gray - Simulated Divided Light Grille	0.82	0.28	0.22
400 Series Double-Hung Half Circle Windows AND-N-7	IMPACT-RESISTANT GLASS	Low-E4®	Without Grilles	0.27	0.33	0.56
			Simulated Divided Light Grilles	-	-	-
			Finelight™ Grilles	0.28	0.30	0.50
			Full Divided Light Grilles	0.28	0.30	0.50
		Low-E4 w/HeatLock®	Without Grilles	0.23	0.32	0.54
			Simulated Divided Light Grilles	-	-	-
			Finelight Grilles	0.24	0.29	0.48
			Full Divided Light Grilles	0.25	0.29	0.48
		Low-E4 Sun	Without Grilles	0.28	0.21	0.31
			Simulated Divided Light Grilles	-	-	-
			Finelight Grilles	0.29	0.19	0.28
			Full Divided Light Grilles	0.28	0.19	0.28
		Low-E4 SmartSun™	Without Grilles	0.27	0.22	0.50
			Simulated Divided Light Grilles	-	-	-
			Finelight Grilles	0.28	0.20	0.45
			Full Divided Light Grilles	0.27	0.20	0.45
		Low-E4 SmartSun w/HeatLock	Without Grilles	0.23	0.22	0.49
			Simulated Divided Light Grilles	-	-	-
			Finelight Grilles	0.24	0.20	0.44
			Full Divided Light Grilles	0.25	0.20	0.44
		Monolithic SmartSun	Clear - Without Grilles	0.81	0.32	0.49
			Clear - Simulated Divided Light Grilles	0.81	0.29	0.44
			Gray - Without Grilles	0.81	0.28	0.24
			Gray - Simulated Divided Light Grille	0.81	0.26	0.21

Andersen® Product	Impact-Resistant Glass Type		U-Factor[1]	SHGC[2]	VT[3]
400 Series Circle & Oval Windows AND-N-7	IMPACT-RESISTANT GLASS	Low-E4®	Without Grilles	0.27	0.34	0.57
			Simulated Divided Light Grilles	0.27	0.31	0.51
			Finelight™ Grilles	0.28	0.31	0.51
			Full Divided Light Grilles	0.28	0.31	0.51
		Low-E4 w/HeatLock®	Without Grilles	0.23	0.33	0.55
			Simulated Divided Light Grilles	0.23	0.30	0.50
			Finelight Grilles	0.24	0.30	0.50
			Full Divided Light Grilles	0.25	0.30	0.50
		Low-E4 Sun	Without Grilles	0.27	0.21	0.32
			Simulated Divided Light Grilles	0.27	0.19	0.28
			Finelight Grilles	0.29	0.19	0.28
			Full Divided Light Grilles	0.28	0.19	0.28
		Low-E4 SmartSun™	Without Grilles	0.26	0.23	0.51
			Simulated Divided Light Grilles	0.26	0.21	0.46
			Finelight Grilles	0.27	0.21	0.46
			Full Divided Light Grilles	0.27	0.21	0.46
		Low-E4 SmartSun w/HeatLock	Without Grilles	0.23	0.22	0.50
			Simulated Divided Light Grilles	0.23	0.20	0.45
			Finelight Grilles	0.23	0.20	0.45
			Full Divided Light Grilles	0.24	0.20	0.45
		Monolithic SmartSun	Clear - Without Grilles	0.82	0.30	0.50
			Clear - Simulated Divided Light Grilles	0.82	0.27	0.45
			Gray - Without Grilles	0.82	0.31	0.25
			Gray - Simulated Divided Light Grille	0.82	0.28	0.22
400 Series Arch Windows AND-N-18	IMPACT-RESISTANT GLASS	Low-E4®	Without Grilles	0.26	0.33	0.56
			Simulated Divided Light Grilles	0.26	0.30	0.50
			Finelight™ Grilles	0.26	0.30	0.50
			Full Divided Light Grilles	0.28	0.30	0.50
		Low-E4 w/HeatLock®	Without Grilles	0.22	0.32	0.54
			Simulated Divided Light Grilles	0.22	0.29	0.49
			Finelight Grilles	0.22	0.29	0.49
			Full Divided Light Grilles	0.24	0.29	0.49
		Low-E4 Sun	Without Grilles	0.27	0.20	0.30
			Simulated Divided Light Grilles	0.27	0.18	0.27
			Finelight Grilles	0.27	0.18	0.27
			Full Divided Light Grilles	0.28	0.18	0.27
		Low-E4 SmartSun™	Without Grilles	0.26	0.23	0.50
			Simulated Divided Light Grilles	0.26	0.21	0.45
			Finelight Grilles	0.26	0.21	0.45
			Full Divided Light Grilles	0.27	0.21	0.45
		Low-E4 SmartSun w/HeatLock	Without Grilles	0.22	0.22	0.49
			Simulated Divided Light Grilles	0.22	0.20	0.44
			Finelight Grilles	0.22	0.20	0.44
			Full Divided Light Grilles	0.24	0.20	0.44
		Monolithic SmartSun	Clear - Without Grilles	0.82	0.30	0.50
			Clear - Simulated Divided Light Grilles	0.82	0.27	0.45
			Gray - Without Grilles	0.82	0.31	0.25
			Gray - Simulated Divided Light Grille	0.82	0.28	0.22

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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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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.
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• This data is accurate as of January 2021. 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 with capillary breather tubes for high altitudes, etc.
• Values are for single units with given pane thickness and 3/4" (19mm) grilles for windows.

400 SERIES PRODUCT PERFORMANCE

Andersen® NFRC Certified Total Unit Performance *(continued)*

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Andersen® Product	Impact-Resistant Glass Type		U-Factor[1]	SHGC[2]	VT[3]
400 Series Springline™ Windows AND-N-25	IMPACT-RESISTANT GLASS	Low-E4®	Without Grilles	0.27	0.33	0.56
			Simulated Divided Light Grilles	0.27	0.30	0.50
			Finelight™ Grilles	0.27	0.30	0.50
			Full Divided Light Grilles	0.29	0.30	0.50
		Low-E4 w/HeatLock®	Without Grilles	0.23	0.32	0.54
			Simulated Divided Light Grilles	0.23	0.29	0.49
			Finelight Grilles	0.23	0.29	0.49
			Full Divided Light Grilles	0.25	0.29	0.49
		Low-E4 Sun	Without Grilles	0.28	0.20	0.30
			Simulated Divided Light Grilles	0.28	0.18	0.27
			Finelight Grilles	0.28	0.18	0.27
			Full Divided Light Grilles	0.29	0.18	0.27
		Low-E4 SmartSun™	Without Grilles	0.27	0.23	0.50
			Simulated Divided Light Grilles	0.27	0.21	0.45
			Finelight Grilles	0.27	0.21	0.45
			Full Divided Light Grilles	0.28	0.21	0.45
		Low-E4 SmartSun w/HeatLock	Without Grilles	0.23	0.22	0.49
			Simulated Divided Light Grilles	0.23	0.20	0.44
			Finelight Grilles	0.23	0.20	0.44
			Full Divided Light Grilles	0.25	0.20	0.44
		Monolithic SmartSun	Clear - Without Grilles	0.83	0.30	0.50
			Clear - Simulated Divided Light Grilles	0.83	0.27	0.44
			Gray - Without Grilles	0.83	0.31	0.25
			Gray - Simulated Divided Light Grille	0.83	0.28	0.22
400 Series Flexiframe® Windows AND-N-17	IMPACT-RESISTANT GLASS	Low-E4®	Without Grilles	0.26	0.33	0.56
			Simulated Divided Light Grilles	0.26	0.30	0.50
			Finelight™ Grilles	0.26	0.30	0.50
			Full Divided Light Grilles	0.27	0.30	0.50
		Low-E4 w/HeatLock®	Without Grilles	0.22	0.32	0.54
			Simulated Divided Light Grilles	0.22	0.29	0.49
			Finelight Grilles	0.22	0.29	0.49
			Full Divided Light Grilles	0.24	0.29	0.49
		Low-E4 Sun	Without Grilles	0.26	0.20	0.30
			Simulated Divided Light Grilles	0.26	0.18	0.27
			Finelight Grilles	0.26	0.18	0.27
			Full Divided Light Grilles	0.28	0.18	0.27
		Low-E4 SmartSun™	Without Grilles	0.25	0.23	0.50
			Simulated Divided Light Grilles	0.25	0.21	0.45
			Finelight Grilles	0.25	0.21	0.45
			Full Divided Light Grilles	0.27	0.21	0.45
		Low-E4 SmartSun w/HeatLock	Without Grilles	0.21	0.22	0.49
			Simulated Divided Light Grilles	0.21	0.20	0.44
			Finelight Grilles	0.21	0.20	0.44
			Full Divided Light Grilles	0.24	0.20	0.44
		Monolithic SmartSun	Clear - Without Grilles	0.82	0.30	0.50
			Clear - Simulated Divided Light Grilles	0.82	0.27	0.45
			Gray - Without Grilles	0.82	0.31	0.25
			Gray - Simulated Divided Light Grille	0.82	0.28	0.22
400 Series Complementary Specialty Windows 400 Series Casement, Awning & Picture Windows AND-N-105	IMPACT-RESISTANT GLASS	Low-E4®	Without Grilles	0.29	0.35	0.59
			Simulated Divided Light Grilles	0.29	0.31	0.53
			Finelight™ Grilles	0.30	0.31	0.53
			Full Divided Light Grilles	0.29	0.31	0.53
		Low-E4 w/HeatLock®	Without Grilles	-	-	-
			Simulated Divided Light Grilles	-	-	-
			Finelight Grilles	-	-	-
			Full Divided Light Grilles	-	-	-
		Low-E4 Sun	Without Grilles	0.29	0.21	0.33
			Simulated Divided Light Grilles	0.29	0.19	0.29
			Finelight Grilles	0.29	0.19	0.29
			Full Divided Light Grilles	0.30	0.19	0.29
		Low-E4 SmartSun™	Without Grilles	0.28	0.23	0.53
			Simulated Divided Light Grilles	0.28	0.21	0.47
			Finelight Grilles	0.28	0.21	0.47
			Full Divided Light Grilles	0.29	0.21	0.47
		Low-E4 SmartSun w/HeatLock	Without Grilles	-	-	-
			Simulated Divided Light Grilles	-	-	-
			Finelight Grilles	-	-	-
			Full Divided Light Grilles	-	-	-
		Monolithic SmartSun	Clear - Without Grilles	0.88	0.29	0.51
			Clear - Simulated Divided Light Grilles	0.88	0.27	0.46
			Gray - Without Grilles	0.88	0.32	0.26
			Gray - Simulated Divided Light Grille	0.88	0.29	0.23

Andersen® Product	Impact-Resistant Glass Type		U-Factor[1]	SHGC[2]	VT[3]
400 Series Complementary Specialty Windows 400 Series Tilt-Wash Double-Hung Windows AND-N-105	IMPACT-RESISTANT GLASS	Low-E4®	Without Grilles	0.28	0.36	0.61
			Simulated Divided Light Grilles	0.28	0.33	0.55
			Finelight™ Grilles	0.28	0.33	0.55
			Full Divided Light Grilles	0.29	0.33	0.55
		Low-E4 w/HeatLock®	Without Grilles	-	-	-
			Simulated Divided Light Grilles	-	-	-
			Finelight Grilles	-	-	-
			Full Divided Light Grilles	-	-	-
		Low-E4 Sun	Without Grilles	0.28	0.22	0.34
			Simulated Divided Light Grilles	0.28	0.20	0.31
			Finelight Grilles	0.28	0.20	0.31
			Full Divided Light Grilles	0.29	0.20	0.31
		Low-E4 SmartSun™	Without Grilles	0.27	0.24	0.55
			Simulated Divided Light Grilles	0.27	0.22	0.49
			Finelight Grilles	0.27	0.22	0.49
			Full Divided Light Grilles	0.28	0.22	0.49
		Low-E4 SmartSun w/HeatLock	Without Grilles	-	-	-
			Simulated Divided Light Grilles	-	-	-
			Finelight Grilles	-	-	-
			Full Divided Light Grilles	-	-	-
		Monolithic SmartSun	Clear - Without Grilles	0.89	0.30	0.54
			Clear - Simulated Divided Light Grilles	0.89	0.28	0.48
			Gray - Without Grilles	0.89	0.33	0.27
			Gray - Simulated Divided Light Grille	0.89	0.30	0.24

• "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. 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 January 2021. 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 with capillary breather tubes for high altitudes, etc.
• Values are for single units with given pane thickness and 3/4" (19mm) grilles for windows.

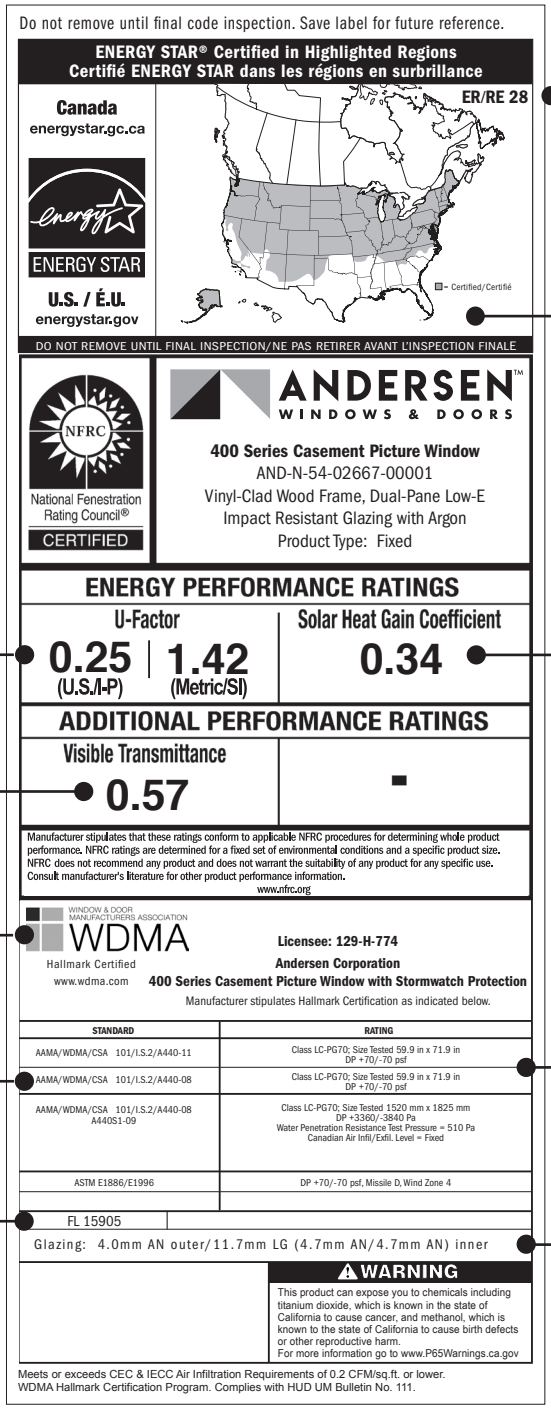
About the NFRC

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 140, Greenbelt, MD 20770. Tel: (301) 589-1776 Website: **www.nfrc.org**

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.



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.

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

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).

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 a third-party testing laboratory.

Test Standards

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

Florida Product Approval Number, Miami-Dade County Notice of Acceptance (NOA) Number or Texas Department of Insurance (TDI) Number

Impact-Resistant Glass Construction

• 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.