

400 SERIES PRODUCT PERFORMANCE



Center of Glass Performance Data — **Low-E4**° Impact-Resistant Glass

For current performance information please visit andersenwindows.com.

					Fading				
Andersen* Product	VT ¹	SC ²	SHGC ³	RHG4	Tuv ⁵	Tdw ⁶	%RH @ center ⁷	IGST ⁸	
400 Series Windows									
Casement, Awning	71%	0.47	0.41	99	< 1%	21%	51%	51°F	
Casement/Awning Picture	68%	0.47	0.41	96	< 1%	22%	62%	56°F	
Tilt-Wash Double-Hung	71%	0.47	0.41	99	< 1%	21%	51%	51°F	
Tilt-Wash Transom	70%	0.46	0.40	96	< 1%	21%	59%	55°F	
Tilt-Wash Picture	70%	0.47	0.41	97	< 1%	22%	57%	54°F	
Circle, Half Circle, Oval	71%	0.47	0.41	96	< 1%	22%	62%	56°F	
Springline [™]	67%	0.45	0.39	93	< 1%	21%	62%	56°F	
Arch, Flexiframe	67%	0.45	0.39	93	< 1%	21%	62%	56°F	

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

For current performance information please visit andersenwindows.com.

					Fading		0/ DU		
Andersen° Product	VT1	SC ²	SHGC ³	RHG4	Tuv⁵	Tdw ⁶	%RH @ center ⁷	IGST ⁸	
400 Series Windows									
Casement, Awning	64%	0.32	0.28	68	< 1%	16%	53%	52°F	
Casement/Awning Picture	62%	0.31	0.27	65	< 1%	16%	62%	56°F	
Tilt-Wash Double-Hung	64%	0.32	0.28	68	< 1%	16%	53%	52°F	
Tilt-Wash Transom	63%	0.31	0.27	66	< 1%	16%	62%	56°F	
Tilt-Wash Picture	63%	0.32	0.28	67	< 1%	17%	57%	54°F	
Circle, Half Circle, Oval	62%	0.31	0.27	65	< 1%	16%	62%	56°F	
Springline"	61%	0.31	0.27	64	< 1%	16%	62%	56°F	
Arch, Flexiframe	61%	0.31	0.27	64	< 1%	16%	62%	56°F	

Center of Glass Performance Data — **Low-E4 Sun** Impact-Resistant Glass

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					Fading			
Andersen® Product	VT1	SC ²	SHGC ³	RHG4	Tuv⁵	Tdw ⁶	%RH @ center ⁷	IGST ⁸
400 Series Windows								
Casement, Awning	39%	0.30	0.26	64	< 1%	13%	51%	51°F
Casement/Awning Picture	38%	0.28	0.25	60	< 1%	14%	59%	55°F
Tilt-Wash Double-Hung	39%	0.30	0.26	64	< 1%	13%	51%	51°F
Tilt-Wash Transom	38%	0.28	0.25	60	< 1%	13%	59%	55°F
Tilt-Wash Picture	38%	0.29	0.25	62	< 1%	14%	55%	53°F
Circle, Half Circle, Oval	38%	0.28	0.25	60	< 1%	14%	59%	55°F
Springline"	36%	0.27	0.24	57	< 1%	13%	59%	55°F
Arch, Flexiframe	36%	0.27	0.24	57	< 1%	13%	59%	55°F

 $[\]hbox{``Low-E4°'', ``Low-E4°' SmartSun'''' and ``Low-E4°' Sun''' are Andersen trademarks for ``Low-E''' glass.}$

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

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

[•] This data is accurate as of April 2021. Due to ongoing product changes, updated test results or new industry standards, this data may change over time. Contact your Andersen supplier for current performance information or upgrade options.

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



400 SERIES PRODUCT PERFORMANCE



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

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					Fading		%RH	
Andersen® Product	VT1	SC ²	SHGC ³	RHG4	Tuv⁵	Tdw ⁶	@ center ⁷	IGST ⁸
400 Series Windows								
Casement, Awning	88%	0.87	0.75	185	< 1%	23%	14%	19°F
Casement/Awning Picture	86%	0.82	0.72	176	< 1%	22%	15%	20°F
Springline [™]	86%	0.82	0.72	176	< 1%	22%	15%	20°F
Arch, Flexiframe [*]	86%	0.82	0.72	176	< 1%	22%	15%	20°F

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

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					Fading		%RH	
Andersen° Product	VT ¹	SC ²	SHGC ³	RHG⁴	Tuv ⁵	Tdw ⁶	@ center ⁷	IGST ⁸
400 Series Windows								
Casement, Awning	44%	0.70	0.61	151	< 1%	17%	14%	19°F
Circle, Half Circle, Oval	44%	0.67	0.58	145	< 1%	17%	15%	20°F
Springline [™]	44%	0.67	0.58	145	< 1%	17%	15%	20°F
Arch, Flexiframe [*]	44%	0.67	058	145	< 1%	17%	15%	20°F

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^{• &}quot;Low-E4", "Low-E4" SmartSun" and "Low-E4" Sun" are Andersen trademarks for "Low-E" glass.
• Based on NFRC testing/simulation conditions using Windows v7.3.4.0 and NFRC validated spectral data. 0°F outside temperature, 70°F inside temperature and a 15 mph wind.

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

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