

Thermal Performance Data

Visions 3500 Single Hung Windows (9107)
(non J-channel)



US Qualification Criteria	Climate Zone	U-Value	SHGC	
<p>As of January 2016</p>	Northern	≤ 0.27	Any	Prescriptive
		$= 0.28$	≥ 0.32	Equivalent Energy Performance
		$= 0.29$	≥ 0.37	
		$= 0.30$	≥ 0.42	
	North-Central	≤ 0.30	≤ 0.40	
	South-Central	≤ 0.30	≤ 0.25	
Southern	≤ 0.40	≤ 0.25		

Canadian Qualification Criteria	Climate Zone	U-Value	or	Energy Rating
<p>As of February 2015</p>	Zone 1	≤ 1.60		≥ 25
	Zone 2	≤ 1.40		≥ 29
	Zone 3	≤ 1.20		≥ 34
	Air Leakage ≤ 0.3 cfm/ft ²			

U-Value

A measurement of how much energy a material conducts. The lower the U-Value, the greater the insulating effect.

Solar Heat Gain Coefficient (SHGC)

Measures how well a window or door prevents heat from passing through it. The lower a window or door's SHGC, the less heat it allows to pass through it.

Visible Light Transmittance

The amount of light in the visible portion of the spectrum that passes through a glazing material.

Condensation Resistance Rating

Measures how well a window resists the formation of condensation on the inside surface. The higher the number the better resistance to condensation.

Energy Rating

A value demonstrating the balance between U-Value, SHGC and air leakage. The higher the number, the more efficient the product.

R-Value

A measurement of how much a material resists heat transfer. A higher R-Value means a greater insulating effect and a lower rate of heat flow out of the home. While **R-value** measures resistance to heat transfer, **U-value** measures the rate of heat transfer. In simple terms, **U-value** is the mathematical reciprocal of **R-value**; that is, $U = 1/R$ and $R = 1/U$.

^a Total Unit calculations are derived from computer simulations that are then verified by 3rd party testing in accordance with NFRC 100, NFRC 200, and NFRC 500.

^b Published values reflect 3mm/3mm glass lite thicknesses.

ENERGY PERFORMANCE DATA
Visions 3500 Single Hung Windows (9107)



US
ENERGY STAR V
6.0

CANADIAN ENERGY
PERFORMANCE DATA



CANADA
ENERGY
STAR v 4.1

Grille Option	Glazing thickness	³NFRC Total Unit Calculations ⁴Glazing Option	CPD #	U-Value	Solar Heat Gain Coefficient	Visible Light Transmittance	Condensation Resistance Rating	US ENERGY STAR V 6.0				U-Value (metric)	Maximum Air Leakage Ls/m²	Air Infiltration/Exfiltration Average	Energy Rating	CANADA ENERGY STAR v 4.1		
								N	NC	SC	S					1	2	3
No GIA or SDL	3/4"	Clear Insul	WEA-N-276-00253-00001	0.46	0.62	0.65	44					2.61	0.6	0.56	18			
	3/4"	Insul Low-E	WEA-N-276-00256-00001	0.32	0.33	0.57	54					1.82	0.6	0.56	18			
	3/4"	Insul Low E w/Argon	WEA-N-276-00259-00001	0.29	0.33	0.57	58		Y			1.65	0.6	0.56	22			
	3/4"	Passive Solar	WEA-N-276-00345-00001	0.33	0.55	0.63	55					1.87	0.6	0.56	30	Y	Y	
	3/4"	Passive Solar w/Argon	WEA-N-276-00346-00001	0.29	0.55	0.63	58	Y				1.65	0.6	0.56	35	Y	Y	Y
	3/4"	Passive Solar Extreme	WEA-N-276-00347-00001	0.27	0.50	0.62	42	Y				1.53	0.6	0.56	34	Y	Y	Y
	3/4"	Passive Solar Extreme w/Argon	WEA-N-276-00348-00001	0.25	0.50	0.62	46	Y				1.42	0.6	0.56	37	Y	Y	Y
	3/4"	Zo-e-shield 5	WEA-N-276-00262-00001	0.32	0.22	0.51	55				Y	1.82	0.6	0.56	12			
	3/4"	Zo-e-shield 5 w/ Argon	WEA-N-276-00270-00001	0.28	0.22	0.51	58		Y	Y	Y	1.59	0.6	0.56	17	Y		
	3/4"	Zo-e-shield 5 Extreme	WEA-N-276-00263-00001	0.27	0.22	0.50	43	Y	Y	Y	Y	1.53	0.6	0.56	18	Y		
	3/4"	Zo-e-shield 5 Extreme w/ Argon	WEA-N-276-00271-00001	0.24	0.22	0.50	46	Y	Y	Y	Y	1.36	0.6	0.56	22	Y	Y	
	3/4"	Zo-e-shield 6	WEA-N-276-00265-00001	0.32	0.22	0.51	57				Y	1.82	0.6	0.56	12			
	3/4"	Zo-e-shield 6 w/ Argon	WEA-N-276-00273-00001	0.28	0.22	0.51	60		Y	Y	Y	1.59	0.6	0.56	17	Y		
	3/4"	Zo-e SafeGuard Certified	WEA-N-276-00267-00001	0.32	0.22	0.50	57				Y	1.82	0.6	0.56	12			
	3/4"	Zo-e SafeGuard Certified w/ Argon	WEA-N-276-00275-00001	0.28	0.22	0.50	61		Y	Y	Y	1.59	0.6	0.56	17	Y		
	3/4"	Insul Low-E 240	WEA-N-276-00281-00001	0.33	0.21	0.32	54				Y	1.87	0.6	0.56	10			
	3/4"	Insul Low-E 240 w/Argon	WEA-N-276-00290-00001	0.30	0.20	0.32	57		Y	Y	Y	1.70	0.6	0.56	13			
3/4"	Insul Low-E 340	WEA-N-276-00284-00001	0.32	0.15	0.31	54				Y	1.82	0.6	0.56	8				
3/4"	Insul Low-E 340 w/Argon	WEA-N-276-00293-00001	0.28	0.14	0.31	58		Y	Y	Y	1.59	0.6	0.56	12				
3/4"	Bronze Low E	WEA-N-276-00256-00011	0.32	0.32	0.42	54					1.82	0.6	0.56	18				
3/4"	Bronze Low E w/Argon	WEA-N-276-00259-00011	0.29	0.32	0.42	58		Y			1.65	0.6	0.56	21				
Less Than 1" GIA or SDL	3/4"	Clear Insul	WEA-N-276-00253-00002	0.46	0.56	0.58	44					2.61	0.6	0.56	14			
	3/4"	Insul Low-E	WEA-N-276-00256-00002	0.32	0.30	0.51	54					1.82	0.6	0.56	16			
	3/4"	Insul Low E w/Argon	WEA-N-276-00259-00002	0.29	0.30	0.51	58		Y			1.65	0.6	0.56	20			
	3/4"	Passive Solar	WEA-N-276-00345-00002	0.33	0.49	0.56	55					1.87	0.6	0.56	26	Y		
	3/4"	Passive Solar w/Argon	WEA-N-276-00346-00002	0.29	0.49	0.56	58	Y				1.65	0.6	0.56	31	Y	Y	
	3/4"	Passive Solar Extreme	WEA-N-276-00347-00002	0.27	0.45	0.55	42	Y				1.53	0.6	0.56	31	Y	Y	
	3/4"	Passive Solar Extreme w/Argon	WEA-N-276-00348-00002	0.25	0.45	0.55	46	Y				1.42	0.6	0.56	34	Y	Y	
	3/4"	Zo-e-shield 5	WEA-N-276-00262-00002	0.32	0.20	0.46	55				Y	1.82	0.6	0.56	11			
	3/4"	Zo-e-shield 5 w/ Argon	WEA-N-276-00270-00002	0.28	0.20	0.46	58		Y	Y	Y	1.59	0.6	0.56	16			
	3/4"	Zo-e-shield 5 Extreme	WEA-N-276-00263-00002	0.27	0.20	0.45	43	Y	Y	Y	Y	1.53	0.6	0.56	17	Y		
	3/4"	Zo-e-shield 5 Extreme w/ Argon	WEA-N-276-00271-00002	0.24	0.20	0.45	46	Y	Y	Y	Y	1.36	0.6	0.56	21	Y	Y	
	3/4"	Zo-e-shield 6	WEA-N-276-00265-00002	0.32	0.20	0.45	57				Y	1.82	0.6	0.56	11			
	3/4"	Zo-e-shield 6 w/ Argon	WEA-N-276-00273-00002	0.28	0.20	0.45	60		Y	Y	Y	1.59	0.6	0.56	16			
	3/4"	Zo-e SafeGuard Certified	WEA-N-276-00267-00002	0.32	0.20	0.45	57				Y	1.82	0.6	0.56	11			
	3/4"	Zo-e SafeGuard Certified w/ Argon	WEA-N-276-00275-00002	0.28	0.20	0.45	61		Y	Y	Y	1.59	0.6	0.56	16			
	3/4"	Insul Low-E 240	WEA-N-276-00281-00002	0.33	0.19	0.28	54				Y	1.87	0.6	0.56	9			
	3/4"	Insul Low-E 240 w/Argon	WEA-N-276-00290-00002	0.30	0.18	0.28	57		Y	Y	Y	1.70	0.6	0.56	12			
3/4"	Insul Low-E 340	WEA-N-276-00284-00002	0.32	0.14	0.28	54				Y	1.82	0.6	0.56	7				
3/4"	Insul Low-E 340 w/Argon	WEA-N-276-00293-00002	0.28	0.13	0.28	58		Y	Y	Y	1.59	0.6	0.56	12				
3/4"	Bronze Low E	WEA-N-276-00256-00012	0.32	0.29	0.38	54					1.82	0.6	0.56	16				
3/4"	Bronze Low E w/Argon	WEA-N-276-00259-00012	0.29	0.28	0.38	58		Y			1.65	0.6	0.56	19				
1" Or Over GIA or SDL	3/4"	Clear Insul	WEA-N-276-00253-00003	0.46	0.50	0.52	44					2.61	0.6	0.56	11			
	3/4"	Insul Low-E	WEA-N-276-00256-00003	0.32	0.27	0.45	54					1.82	0.6	0.56	15			
	3/4"	Insul Low E w/Argon	WEA-N-276-00259-00003	0.29	0.27	0.45	58		Y			1.65	0.6	0.56	18			
	3/4"	Passive Solar	WEA-N-276-00345-00003	0.33	0.44	0.50	55					1.87	0.6	0.56	23			
	3/4"	Passive Solar w/Argon	WEA-N-276-00346-00003	0.29	0.44	0.50	58	Y				1.65	0.6	0.56	28	Y		
	3/4"	Passive Solar Extreme	WEA-N-276-00347-00003	0.27	0.40	0.49	42	Y	Y			1.53	0.6	0.56	28	Y		
	3/4"	Passive Solar Extreme w/Argon	WEA-N-276-00348-00003	0.25	0.40	0.49	46	Y	Y			1.42	0.6	0.56	31	Y	Y	
	3/4"	Zo-e-shield 5	WEA-N-276-00262-00003	0.32	0.18	0.41	55				Y	1.82	0.6	0.56	9			
	3/4"	Zo-e-shield 5 w/ Argon	WEA-N-276-00270-00003	0.28	0.18	0.41	58		Y	Y	Y	1.59	0.6	0.56	14			
	3/4"	Zo-e-shield 5 Extreme	WEA-N-276-00263-00003	0.27	0.18	0.40	43	Y	Y	Y	Y	1.53	0.6	0.56	16			
	3/4"	Zo-e-shield 5 Extreme w/ Argon	WEA-N-276-00271-00003	0.24	0.18	0.40	46	Y	Y	Y	Y	1.36	0.6	0.56	20	Y		
	3/4"	Zo-e-shield 6	WEA-N-276-00265-00003	0.32	0.18	0.40	57				Y	1.82	0.6	0.56	9			
	3/4"	Zo-e-shield 6 w/ Argon	WEA-N-276-00273-00003	0.28	0.18	0.40	60		Y	Y	Y	1.59	0.6	0.56	14			
	3/4"	Zo-e SafeGuard Certified	WEA-N-276-00267-00003	0.32	0.18	0.40	57				Y	1.82	0.6	0.56	9			
	3/4"	Zo-e SafeGuard Certified w/ Argon	WEA-N-276-00275-00003	0.28	0.18	0.40	61		Y	Y	Y	1.59	0.6	0.56	14			
	3/4"	Insul Low-E 240	WEA-N-276-00281-00003	0.33	0.17	0.25	54				Y	1.87	0.6	0.56	8			
	3/4"	Insul Low-E 240 w/Argon	WEA-N-276-00290-00003	0.30	0.17	0.25	57		Y	Y	Y	1.70	0.6	0.56	11			
3/4"	Insul Low-E 340	WEA-N-276-00284-00003	0.32	0.12	0.24	54				Y	1.82	0.6	0.56	6				
3/4"	Insul Low-E 340 w/Argon	WEA-N-276-00293-00003	0.28	0.12	0.24	58		Y	Y	Y	1.59	0.6	0.56	11				
3/4"	Bronze Low E	WEA-N-276-00256-00013	0.32	0.26	0.33	54					1.82	0.6	0.56	14				
3/4"	Bronze Low E w/Argon	WEA-N-276-00259-00013	0.29	0.26	0.33	58		Y			1.65	0.6	0.56	18				