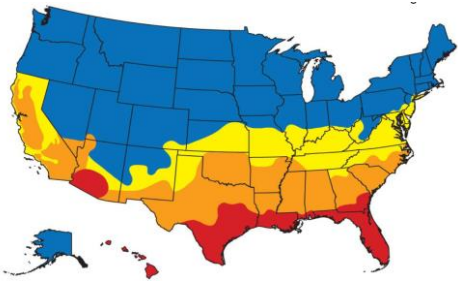
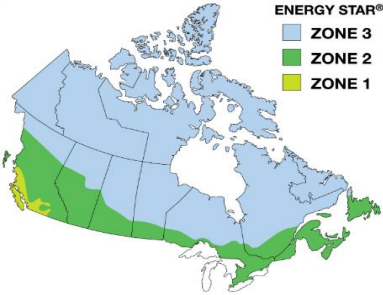


Thermal Performance Data

Signature Casement Windows - Picture/Transom (8219)

WEATHER SHIELD.
WINDOWS & DOORS

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	
	North-Central	=0.30	>=0.42	
		<=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>ENERGY STAR® ZONE 3 ZONE 2 ZONE 1</p> <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/ft2			

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													CANADIAN ENERGY PERFORMANCE DATA						
Signature Casement Windows - Picture/Transom (8219)													ENERGY STAR						
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-322-00384-00001	0.46	0.65	0.67	42					2.61	0.6	0.05	20				
	3/4"	Insul Low-E	WEA-N-322-00385-00001	0.32	0.32	0.57	52					1.82	0.6	0.05	19				
	3/4"	Insul Low E w/Argon	WEA-N-322-00391-00001	0.28	0.32	0.57	56	Y	Y			1.59	0.6	0.05	24	Y			
	3/4"	Passive Solar	WEA-N-322-00265-00001	0.32	0.56	0.65	53					1.82	0.6	0.05	32	Y	Y		
	3/4"	Passive Solar w/Argon	WEA-N-322-00322-00001	0.29	0.56	0.65	57	Y				1.65	0.6	0.05	36	Y	Y	Y	
	3/4"	Passive Solar Extreme	WEA-N-322-00269-00001	0.27	0.51	0.63	41	Y				1.53	0.6	0.05	36	Y	Y	Y	
	3/4"	Passive Solar Extreme w/Argon	WEA-N-322-00326-00001	0.24	0.51	0.63	44	Y				1.36	0.6	0.05	40	Y	Y	Y	
	3/4"	Zo-e-shield 5	WEA-N-322-00386-00001	0.32	0.23	0.51	52				Y		1.82	0.6	0.05	13			
	3/4"	Zo-e-shield 5 w/ Argon	WEA-N-322-00392-00001	0.28	0.23	0.51	56		Y	Y	Y		1.59	0.6	0.05	18	Y		
	3/4"	Zo-e-shield 5 Extreme	WEA-N-322-00281-00001	0.26	0.22	0.52	42	Y	Y	Y	Y		1.48	0.6	0.05	20	Y		
	3/4"	Zo-e-shield 5 Extreme w/ Argon	WEA-N-322-00338-00001	0.23	0.22	0.52	45	Y	Y	Y	Y		1.31	0.6	0.05	24	Y	Y	
	3/4"	Zo-e-shield 6	WEA-N-322-00291-00001	0.33	0.23	0.52	51				Y		1.87	0.6	0.05	12			
	3/4"	Zo-e-shield 6 w/ Argon	WEA-N-322-00345-00001	0.28	0.23	0.52	55		Y	Y	Y		1.59	0.6	0.05	18	Y		
	3/4"	Zo-e SafeGuard Certified	WEA-N-322-00300-00001	0.33	0.23	0.52	51				Y		1.87	0.6	0.05	12			
	3/4"	Zo-e SafeGuard Certified w/ Argon	WEA-N-322-00354-00001	0.28	0.23	0.52	55		Y	Y	Y		1.59	0.6	0.05	18	Y		
	1"	Zo-e-shield 7	WEA-N-322-00306-00001	0.24	0.21	0.42	63	Y	Y	Y	Y		1.36	0.6	0.05	22	Y	Y	
	1"	Zo-e-shield 7 w/ Argon	WEA-N-322-00360-00001	0.20	0.21	0.42	67	Y	Y	Y	Y		1.14	0.6	0.05	27	Y	Y	Y
	3/4"	Insul Low-E 240	WEA-N-322-00273-00001	0.32	0.22	0.33	53				Y		1.82	0.6	0.05	13			
	3/4"	Insul Low-E 240 w/Argon	WEA-N-322-00330-00001	0.28	0.21	0.33	56		Y	Y	Y		1.59	0.6	0.05	17	Y		
	3/4"	Insul Low-E 340	WEA-N-322-00277-00001	0.31	0.15	0.32	54				Y		1.76	0.6	0.05	10			
3/4"	Insul Low-E 340 w/Argon	WEA-N-322-00334-00001	0.28	0.15	0.32	57		Y	Y	Y		1.59	0.6	0.05	14				
3/4"	Bronze Low E	WEA-N-322-00257-00011	0.32	0.33	0.43	53						1.82	0.6	0.05	19				
3/4"	Bronze Low E w/Argon	WEA-N-322-00314-00011	0.28	0.32	0.43	57	Y	Y				1.59	0.6	0.05	24	Y			
Less Than 1" GIA or SDL	3/4"	Clear Insul	WEA-N-322-00384-00002	0.46	0.58	0.60	42					2.61	0.6	0.05	16				
	3/4"	Insul Low-E	WEA-N-322-00385-00002	0.32	0.29	0.51	52					1.82	0.6	0.05	17				
	3/4"	Insul Low E w/Argon	WEA-N-322-00391-00002	0.28	0.29	0.51	56		Y			1.59	0.6	0.05	22	Y			
	3/4"	Passive Solar	WEA-N-322-00265-00002	0.32	0.51	0.58	53					1.82	0.6	0.05	30	Y	Y		
	3/4"	Passive Solar w/Argon	WEA-N-322-00322-00002	0.29	0.51	0.58	57	Y				1.65	0.6	0.05	33	Y	Y		
	3/4"	Passive Solar Extreme	WEA-N-322-00269-00002	0.27	0.46	0.57	41	Y				1.53	0.6	0.05	33	Y	Y		
	3/4"	Passive Solar Extreme w/Argon	WEA-N-322-00326-00002	0.24	0.46	0.57	44	Y				1.36	0.6	0.05	37	Y	Y	Y	
	3/4"	Zo-e-shield 5	WEA-N-322-00386-00002	0.32	0.21	0.45	52				Y		1.82	0.6	0.05	12			
	3/4"	Zo-e-shield 5 w/ Argon	WEA-N-322-00392-00002	0.28	0.21	0.45	56		Y	Y	Y		1.59	0.6	0.05	17	Y		
	3/4"	Zo-e-shield 5 Extreme	WEA-N-322-00281-00002	0.26	0.20	0.46	42	Y	Y	Y	Y		1.48	0.6	0.05	19	Y		
	3/4"	Zo-e-shield 5 Extreme w/ Argon	WEA-N-322-00338-00002	0.23	0.20	0.46	45	Y	Y	Y	Y		1.31	0.6	0.05	23	Y	Y	
	3/4"	Zo-e-shield 6	WEA-N-322-00292-00001	0.35	0.21	0.46	51				Y		1.99	0.6	0.05	8			
	3/4"	Zo-e-shield 6 w/ Argon	WEA-N-322-00346-00001	0.30	0.21	0.46	55		Y	Y	Y		1.70	0.6	0.05	15			
	3/4"	Zo-e SafeGuard Certified	WEA-N-322-00301-00001	0.35	0.21	0.46	51				Y		1.99	0.6	0.05	8			
	3/4"	Zo-e SafeGuard Certified w/ Argon	WEA-N-322-00355-00001	0.30	0.21	0.46	55		Y	Y	Y		1.70	0.6	0.05	15			
	1"	Zo-e-shield 7	WEA-N-322-00307-00001	0.25	0.19	0.38	63	Y	Y	Y	Y		1.42	0.6	0.05	20	Y		
	1"	Zo-e-shield 7 w/ Argon	WEA-N-322-00361-00001	0.21	0.19	0.38	67	Y	Y	Y	Y		1.19	0.6	0.05	25	Y	Y	Y
	3/4"	Insul Low-E 240	WEA-N-322-00273-00002	0.32	0.20	0.29	53				Y		1.82	0.6	0.05	12			
	3/4"	Insul Low-E 240 w/Argon	WEA-N-322-00330-00002	0.28	0.19	0.29	56		Y	Y	Y		1.59	0.6	0.05	16	Y		
	3/4"	Insul Low-E 340	WEA-N-322-00277-00002	0.31	0.14	0.28	54				Y		1.76	0.6	0.05	9			
3/4"	Insul Low-E 340 w/Argon	WEA-N-322-00334-00002	0.28	0.14	0.28	57		Y	Y	Y		1.59	0.6	0.05	13				
3/4"	Bronze Low E	WEA-N-322-00257-00012	0.32	0.30	0.39	53						1.82	0.6	0.05	17				
3/4"	Bronze Low E w/Argon	WEA-N-322-00314-00012	0.28	0.29	0.39	57		Y				1.59	0.6	0.05	22	Y			
1" Or Over GIA or SDL	3/4"	Clear Insul	WEA-N-322-00384-00003	0.46	0.52	0.53	42					2.61	0.6	0.05	13				
	3/4"	Insul Low-E	WEA-N-322-00385-00003	0.32	0.26	0.45	52					1.82	0.6	0.05	15				
	3/4"	Insul Low E w/Argon	WEA-N-322-00391-00003	0.28	0.26	0.45	56		Y			1.59	0.6	0.05	20	Y			
	3/4"	Passive Solar	WEA-N-322-00265-00003	0.32	0.45	0.51	53					1.82	0.6	0.05	26	Y			
	3/4"	Passive Solar w/Argon	WEA-N-322-00322-00003	0.29	0.45	0.51	57	Y				1.65	0.6	0.05	30	Y	Y		
	3/4"	Passive Solar Extreme	WEA-N-322-00269-00003	0.27	0.41	0.50	41	Y				1.53	0.6	0.05	30	Y	Y		
	3/4"	Passive Solar Extreme w/Argon	WEA-N-322-00326-00003	0.24	0.41	0.50	44	Y				1.36	0.6	0.05	34	Y	Y		
	3/4"	Zo-e-shield 5	WEA-N-322-00386-00003	0.32	0.19	0.40	52				Y		1.82	0.6	0.05	11			
	3/4"	Zo-e-shield 5 w/ Argon	WEA-N-322-00392-00003	0.28	0.19	0.40	56		Y	Y	Y		1.59	0.6	0.05	16	Y		
	3/4"	Zo-e-shield 5 Extreme	WEA-N-322-00281-00003	0.26	0.18	0.41	42	Y	Y	Y	Y		1.48	0.6	0.05	18	Y		
	3/4"	Zo-e-shield 5 Extreme w/ Argon	WEA-N-322-00338-00003	0.23	0.18	0.41	45	Y	Y	Y	Y		1.31	0.6	0.05	22	Y	Y	
	3/4"	Zo-e-shield 6	WEA-N-322-00292-00002	0.35	0.19	0.41	51				Y		1.99	0.6	0.05	7			
	3/4"	Zo-e-shield 6 w/ Argon	WEA-N-322-00346-00002	0.30	0.19	0.41	55		Y	Y	Y		1.70	0.6	0.05	14			
	3/4"	Zo-e SafeGuard Certified	WEA-N-322-00301-00002	0.35	0.19	0.41	51				Y		1.99	0.6	0.05	7			
	3/4"	Zo-e SafeGuard Certified w/ Argon	WEA-N-322-00355-00002	0.30	0.19	0.41	55		Y	Y	Y		1.70	0.6	0.05	14			
	1"	Zo-e-shield 7	WEA-N-322-00307-00002	0.25	0.17	0.33	63	Y	Y	Y	Y		1.42	0.6	0.05	19	Y		
	1"	Zo-e-shield 7 w/ Argon	WEA-N-322-00361-00002	0.21	0.17	0.33	67	Y	Y	Y	Y		1.19	0.6	0.05	24	Y	Y	
	3/4"	Insul Low-E 240	WEA-N-322-00273-00003	0.32	0.18	0.26	53				Y		1.82	0.6	0.05	10			
	3/4"	Insul Low-E 240 w/Argon	WEA-N-322-00330-00003	0.28	0.17	0.26	56		Y	Y	Y		1.59	0.6	0.05	15			
	3/4"	Insul Low-E 340	WEA-N-322-00277-00003	0.31	0.13	0.25	54				Y		1.76	0.6	0.05	9			
3/4"	Insul Low-E 340 w/Argon	WEA-N-322-00334-00003	0.28	0.12	0.25	57		Y	Y	Y		1.59	0.6	0.05	12				
3/4"	Bronze Low E	WEA-N-322-00257-00013	0.32	0.27	0.34	53						1.82	0.6	0.05	16				
3/4"	Bronze Low E w/Argon	WEA-N-322-00314-00013	0.28	0.26	0.34	57		Y				1.59	0.6	0.05	20	Y			