



# Thermal Performance Data

Signature Casement Windows - Picture/Transom (8219)

**WEATHER SHIELD.**

**WINDOWS & DOORS**

US Qualification Criteria	Climate Zone	U-Value	SHGC		
 <p>Energy Star Version 7.0 Starting October 2023</p>	Northern	$\leq 0.22$	$\geq 0.17$	Prescriptive	
			$= 0.23$	$\geq 0.35$	Equivalent Energy Performance
			$= 0.24$		
			$= 0.25$	$\geq 0.40$	
			$= 0.26$		
	North-Central	$\leq 0.25$	$\leq 0.40$		
South-Central	$\leq 0.28$	$\leq 0.23$			
Southern	$\leq 0.32$	$\leq 0.23$			

Canadian Qualification Criteria	U-Value	or	Energy Rating
 <p>Energy Star Version 5.0 starting January 2020</p>	$\leq 1.22$		$\geq 34$
	Air Leakage $\leq 1.5$ L/s/m <sup>2</sup>		

## 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**.

<sup>a</sup> 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.

<sup>b</sup> Published values reflect 3mm glass lite thicknesses.

ENERGY PERFORMANCE DATA													CANADIAN ENERGY PERFORMANCE DATA				
Signature Casement Windows - Picture/Transom (8219)													CANADIAN ENERGY STAR v5.0				
Grille Option	Glazing thickness	NFRC Total Unit Calculations Glazing Option	CPD #	U-Value	Solar Heat Gain Coefficient	Visible Light Transmittance	Condensation Resistance Rating	US ENERGY STAR V 7.0				U-Value (metric)	Maximum Air Leakage L/s/m2	Air Infiltration/Exfiltration Average	Energy Rating		
								N	NC	SC	S						
No GIA or SDL	3/4"	Clear Insul	WEA-N-322-00465-00001	0.46	0.64	0.67	42					2.61	1.5	0.05	20		
	3/4"	Insul Low-E	WEA-N-322-00466-00001	0.32	0.34	0.59	53					1.82	1.5	0.05	20		
	3/4"	Insul Low E w/Argon	WEA-N-322-00474-00001	0.28	0.34	0.59	56					1.59	1.5	0.05	25		
	3/4"	Passive Solar	WEA-N-322-00469-00001	0.33	0.56	0.65	52					1.87	1.5	0.05	31		
	3/4"	Passive Solar w/Argon	WEA-N-322-00477-00001	0.29	0.56	0.65	56					1.65	1.5	0.05	36		
	3/4"	Passive Solar Extreme	WEA-N-322-00470-00001	0.27	0.51	0.63	40					1.53	1.5	0.05	36		
	3/4"	Passive Solar Extreme w/Argon	WEA-N-322-00478-00001	0.25	0.51	0.63	43	Y				1.42	1.5	0.05	38		
	3/4"	Zo-e-shield 5	WEA-N-322-00467-00001	0.31	0.23	0.53	53				Y		1.76	1.5	0.05	15	
	3/4"	Zo-e-shield 5 w/ Argon	WEA-N-322-00475-00001	0.28	0.23	0.53	56			Y	Y		1.59	1.5	0.05	18	
	3/4"	Zo-e-shield 5 Extreme	WEA-N-322-00468-00001	0.26	0.22	0.52	41			Y	Y		1.48	1.5	0.05	20	
	3/4"	Zo-e-shield 5 Extreme w/ Argon	WEA-N-322-00476-00001	0.24	0.22	0.52	45		Y	Y	Y		1.36	1.5	0.05	23	
	1"	Zo-e-shield 6	WEA-N-322-00587-00001	0.31	0.23	0.52	46				Y	Y		1.76	1.5	0.05	15
	1"	Zo-e-shield 6 w/ Argon	WEA-N-322-00595-00001	0.28	0.22	0.52	51			Y	Y		1.59	1.5	0.05	18	
	1"	Zo-e SafeGuard Certified	WEA-N-322-00592-00001	0.31	0.22	0.51	47				Y	Y		1.76	1.5	0.05	14
	1"	Zo-e SafeGuard Certified w/ Argon	WEA-N-322-00600-00001	0.27	0.22	0.51	54			Y	Y		1.53	1.5	0.05	19	
	1"	Zo-e-shield 7	WEA-N-322-00537-00001	0.24	0.21	0.42	62		Y	Y	Y		1.36	1.5	0.05	22	
	1"	Zo-e-shield 7 w/ Argon	WEA-N-322-00551-00001	0.21	0.21	0.42	66	Y	Y	Y	Y		1.19	1.5	0.05	26	
	3/4"	Insul Low-E 240	WEA-N-322-00471-00001	0.32	0.21	0.33	52				Y		1.82	1.5	0.05	12	
	3/4"	Insul Low-E 240 w/Argon	WEA-N-322-00479-00001	0.29	0.21	0.33	55				Y		1.65	1.5	0.05	16	
	3/4"	Insul Low-E 340	WEA-N-322-00472-00001	0.32	0.15	0.32	53				Y		1.82	1.5	0.05	9	
3/4"	Insul Low-E 340 w/Argon	WEA-N-322-00480-00001	0.28	0.15	0.32	56			Y	Y		1.59	1.5	0.05	14		
3/4"	Bronze Low E	WEA-N-322-00466-00011	0.32	0.33	0.43	53					Y		1.82	1.5	0.05	19	
3/4"	Bronze Low E w/Argon	WEA-N-322-00474-00011	0.28	0.32	0.43	56					Y		1.59	1.5	0.05	24	
Less Than 1" GIA or SDL	3/4"	Clear Insul	WEA-N-322-00465-00002	0.46	0.57	0.60	42					2.61	1.5	0.05	16		
	3/4"	Insul Low-E	WEA-N-322-00466-00002	0.32	0.31	0.53	53					1.82	1.5	0.05	18		
	3/4"	Insul Low E w/Argon	WEA-N-322-00474-00002	0.28	0.31	0.53	56					1.59	1.5	0.05	23		
	3/4"	Passive Solar	WEA-N-322-00469-00002	0.33	0.51	0.58	52					1.87	1.5	0.05	28		
	3/4"	Passive Solar w/Argon	WEA-N-322-00477-00002	0.29	0.51	0.58	56					1.65	1.5	0.05	33		
	3/4"	Passive Solar Extreme	WEA-N-322-00470-00002	0.27	0.46	0.56	40					1.53	1.5	0.05	33		
	3/4"	Passive Solar Extreme w/Argon	WEA-N-322-00478-00002	0.25	0.46	0.56	43	Y				1.42	1.5	0.05	35		
	3/4"	Zo-e-shield 5	WEA-N-322-00467-00002	0.31	0.21	0.47	53				Y		1.76	1.5	0.05	13	
	3/4"	Zo-e-shield 5 w/ Argon	WEA-N-322-00475-00002	0.28	0.20	0.47	56			Y	Y		1.59	1.5	0.05	17	
	3/4"	Zo-e-shield 5 Extreme	WEA-N-322-00468-00002	0.26	0.20	0.46	41			Y	Y		1.48	1.5	0.05	19	
	3/4"	Zo-e-shield 5 Extreme w/ Argon	WEA-N-322-00476-00002	0.24	0.20	0.46	45		Y	Y	Y		1.36	1.5	0.05	22	
	1"	Zo-e-shield 6	WEA-N-322-00587-00002	0.31	0.21	0.47	46				Y	Y		1.76	1.5	0.05	13
	1"	Zo-e-shield 6 w/ Argon	WEA-N-322-00595-00002	0.28	0.20	0.47	51			Y	Y		1.59	1.5	0.05	17	
	1"	Zo-e SafeGuard Certified	WEA-N-322-00592-00002	0.31	0.20	0.46	47				Y	Y		1.76	1.5	0.05	13
	1"	Zo-e SafeGuard Certified w/ Argon	WEA-N-322-00600-00002	0.27	0.20	0.46	54			Y	Y		1.53	1.5	0.05	18	
	1"	Zo-e-shield 7	WEA-N-322-00538-00001	0.25	0.19	0.38	62		Y	Y	Y		1.42	1.5	0.05	20	
	1"	Zo-e-shield 7 w/ Argon	WEA-N-322-00552-00001	0.21	0.19	0.38	66	Y	Y	Y	Y		1.19	1.5	0.05	25	
	3/4"	Insul Low-E 240	WEA-N-322-00471-00002	0.32	0.20	0.29	52				Y		1.82	1.5	0.05	12	
	3/4"	Insul Low-E 240 w/Argon	WEA-N-322-00479-00002	0.29	0.19	0.29	55				Y		1.65	1.5	0.05	15	
	3/4"	Insul Low-E 340	WEA-N-322-00472-00002	0.32	0.14	0.28	53				Y		1.82	1.5	0.05	8	
3/4"	Insul Low-E 340 w/Argon	WEA-N-322-00480-00002	0.28	0.14	0.28	56			Y	Y		1.59	1.5	0.05	13		
3/4"	Bronze Low E	WEA-N-322-00466-00012	0.32	0.29	0.39	53					Y		1.82	1.5	0.05	17	
3/4"	Bronze Low E w/Argon	WEA-N-322-00474-00012	0.28	0.29	0.39	56					Y		1.59	1.5	0.05	22	
1" Or Over GIA or SDL	3/4"	Clear Insul	WEA-N-322-00465-00003	0.46	0.51	0.53	42					2.61	1.5	0.05	12		
	3/4"	Insul Low-E	WEA-N-322-00466-00003	0.32	0.28	0.47	53					1.82	1.5	0.05	16		
	3/4"	Insul Low E w/Argon	WEA-N-322-00474-00003	0.28	0.28	0.47	56					1.59	1.5	0.05	21		
	3/4"	Passive Solar	WEA-N-322-00469-00003	0.33	0.45	0.51	52					1.87	1.5	0.05	25		
	3/4"	Passive Solar w/Argon	WEA-N-322-00477-00003	0.29	0.45	0.51	56					1.65	1.5	0.05	30		
	3/4"	Passive Solar Extreme	WEA-N-322-00470-00003	0.27	0.41	0.50	40					1.53	1.5	0.05	30		
	3/4"	Passive Solar Extreme w/Argon	WEA-N-322-00478-00003	0.25	0.41	0.50	43	Y				1.42	1.5	0.05	32		
	3/4"	Zo-e-shield 5	WEA-N-322-00467-00003	0.31	0.19	0.42	53				Y		1.76	1.5	0.05	12	
	3/4"	Zo-e-shield 5 w/ Argon	WEA-N-322-00475-00003	0.28	0.19	0.42	56			Y	Y		1.59	1.5	0.05	16	
	3/4"	Zo-e-shield 5 Extreme	WEA-N-322-00468-00003	0.26	0.18	0.41	41			Y	Y		1.48	1.5	0.05	18	
	3/4"	Zo-e-shield 5 Extreme w/ Argon	WEA-N-322-00476-00003	0.24	0.18	0.41	45		Y	Y	Y		1.36	1.5	0.05	21	
	1"	Zo-e-shield 6	WEA-N-322-00587-00003	0.31	0.19	0.41	46				Y	Y		1.76	1.5	0.05	12
	1"	Zo-e-shield 6 w/ Argon	WEA-N-322-00595-00003	0.28	0.18	0.41	51			Y	Y		1.59	1.5	0.05	15	
	1"	Zo-e SafeGuard Certified	WEA-N-322-00592-00003	0.31	0.18	0.41	47				Y	Y		1.76	1.5	0.05	12
	1"	Zo-e SafeGuard Certified w/ Argon	WEA-N-322-00600-00003	0.27	0.18	0.41	54			Y	Y		1.53	1.5	0.05	17	
	1"	Zo-e-shield 7	WEA-N-322-00538-00002	0.25	0.17	0.34	62		Y	Y	Y		1.42	1.5	0.05	19	
	1"	Zo-e-shield 7 w/ Argon	WEA-N-322-00552-00002	0.21	0.17	0.34	66	Y	Y	Y	Y		1.19	1.5	0.05	24	
	3/4"	Insul Low-E 240	WEA-N-322-00471-00003	0.32	0.18	0.26	52				Y		1.82	1.5	0.05	10	
	3/4"	Insul Low-E 240 w/Argon	WEA-N-322-00479-00003	0.29	0.17	0.26	55				Y		1.65	1.5	0.05	14	
	3/4"	Insul Low-E 340	WEA-N-322-00472-00003	0.32	0.13	0.25	53				Y		1.82	1.5	0.05	8	
3/4"	Insul Low-E 340 w/Argon	WEA-N-322-00480-00003	0.28	0.12	0.25	56			Y	Y		1.59	1.5	0.05	12		
3/4"	Bronze Low E	WEA-N-322-00466-00013	0.32	0.27	0.34	53					Y		1.82	1.5	0.05	16	
3/4"	Bronze Low E w/Argon	WEA-N-322-00474-00013	0.28	0.26	0.34	56					Y		1.59	1.5	0.05	20	