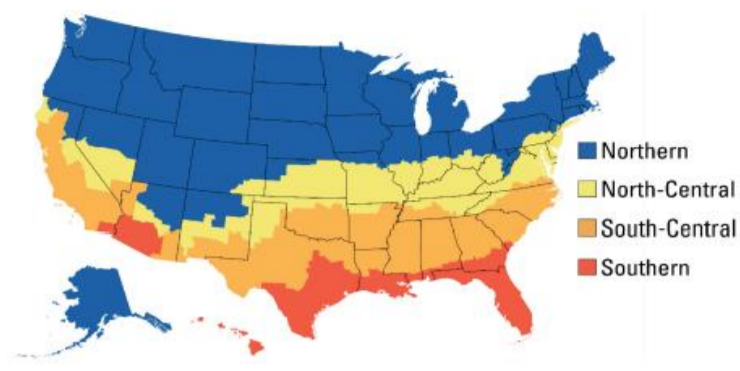



US Qualification Criteria	Climate Zone	U-Value	SHGC	
 <p>Energy Star Version 7.0 Starting October 2023</p>	Northern	$\leq 0.22$	$\geq 0.17$	Prescriptive
		$= 0.23$	$\geq 0.35$	Equivalent Energy Performance
		$= 0.24$	$\geq 0.40$	
		$= 0.25$		
		$= 0.26$		
	North-Central	$\leq 0.25$	$\leq 0.40$	
South-Central	$\leq 0.28$	$\leq 0.23$		
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								US ENERGY STAR V 7.0				CANADIAN ENERGY PERFORMANCE DATA			
Classic Double Hung Windows - Picture/Transom								ENERGY STAR				ENERGY STAR			
Grille Option	Glazing thickness	<sup>a</sup> NFRC Total Unit Calculations <sup>b</sup> Glazing Option	CPD #	U-Value	Solar Heat Gain Coefficient	Visible Light Transmittance	Condensation Resistance Rating	N	NC	SC	S	U-Value (metric)	Maximum Air Leakage L/s/m2	Air Infiltration/Exfiltration Average	Energy Rating
No GIA or SDL	3/4"	Clear Insul	PEL-N-229-00021-00001	0.46	0.64	0.68	42					2.61	1.5	0.05	20
	3/4"	Insul Low-E	PEL-N-229-00089-00001	0.31	0.31	0.58	53					1.76	1.5	0.05	19
	3/4"	Insul Low E w/Argon	PEL-N-229-00093-00001	0.27	0.31	0.58	57					1.53	1.5	0.05	24
	3/4"	Low-E Extreme	PEL-N-229-00145-00001	0.26	0.30	0.56	41					1.48	1.5	0.05	25
	3/4"	Low E Extreme w/Argon	PEL-N-229-00149-00001	0.23	0.30	0.56	45		Y			1.31	1.5	0.05	29
	3/4"	Passive Solar Low-E	PEL-N-229-00049-00001	0.32	0.56	0.65	53					1.82	1.5	0.05	32
	3/4"	Passive Solar Low-E w/Argon	PEL-N-229-00053-00001	0.28	0.57	0.65	56					1.59	1.5	0.05	38
	3/4"	Passive Solar Low-E Extreme	PEL-N-229-01449-00001	0.27	0.51	0.64	40					1.53	1.5	0.05	36
	3/4"	Passive Solar Low-E Extreme w/Argon	PEL-N-229-01453-00001	0.24	0.52	0.64	44	Y				1.36	1.5	0.05	40
	3/4"	Zo-e-shield 5	PEL-N-229-00193-00001	0.31	0.23	0.53	54				Y	1.76	1.5	0.05	15
	3/4"	Zo-e-shield 5 w/ Argon	PEL-N-229-00197-00001	0.27	0.23	0.53	57			Y	Y	1.53	1.5	0.05	20
	3/4"	Zo-e-shield 5 Extreme	PEL-N-229-01497-00001	0.26	0.23	0.52	41			Y	Y	1.48	1.5	0.05	21
	3/4"	Zo-e-shield 5 Extreme w/ Argon	PEL-N-229-01501-00001	0.23	0.22	0.52	45		Y	Y	Y	1.31	1.5	0.05	24
Less Than 1" GIA or SDL	3/4"	Clear Insul	PEL-N-229-00022-00001	0.46	0.58	0.60	42					2.61	1.5	0.05	16
	3/4"	Insul Low-E	PEL-N-229-00090-00001	0.31	0.28	0.51	53					1.76	1.5	0.05	18
	3/4"	Insul Low E w/Argon	PEL-N-229-00094-00001	0.27	0.28	0.51	57					1.53	1.5	0.05	23
	3/4"	Low-E Extreme	PEL-N-229-00146-00001	0.26	0.27	0.50	41					1.48	1.5	0.05	23
	3/4"	Low E Extreme w/Argon	PEL-N-229-00150-00001	0.23	0.27	0.50	45		Y			1.31	1.5	0.05	27
	3/4"	Passive Solar	PEL-N-229-00050-00001	0.32	0.51	0.58	53					1.82	1.5	0.05	30
	3/4"	Passive Solar w/Argon	PEL-N-229-00054-00001	0.28	0.51	0.58	56					1.59	1.5	0.05	35
	3/4"	Passive Solar Extreme	PEL-N-229-01450-00001	0.27	0.46	0.57	40					1.53	1.5	0.05	33
	3/4"	Passive Solar Extreme w/Argon	PEL-N-229-01454-00001	0.24	0.46	0.57	44	Y				1.36	1.5	0.05	37
	3/4"	Zo-e-shield 5	PEL-N-229-00194-00001	0.31	0.21	0.48	54				Y	1.76	1.5	0.05	13
	3/4"	Zo-e-shield 5 w/ Argon	PEL-N-229-00198-00001	0.27	0.21	0.48	57			Y	Y	1.53	1.5	0.05	19
	3/4"	Zo-e-shield 5 Extreme	PEL-N-229-01498-00001	0.26	0.21	0.47	41			Y	Y	1.48	1.5	0.05	20
	3/4"	Zo-e-shield 5 Extreme w/ Argon	PEL-N-229-01502-00001	0.23	0.20	0.47	45		Y	Y	Y	1.31	1.5	0.05	23