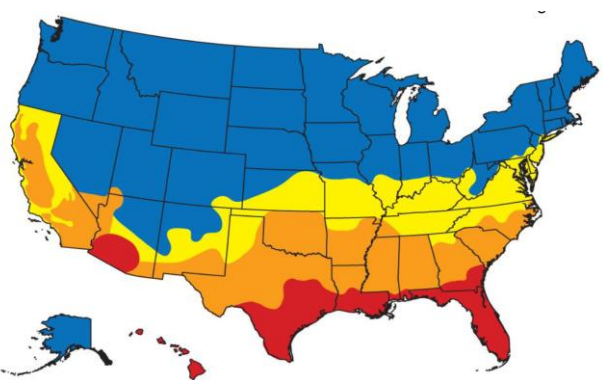


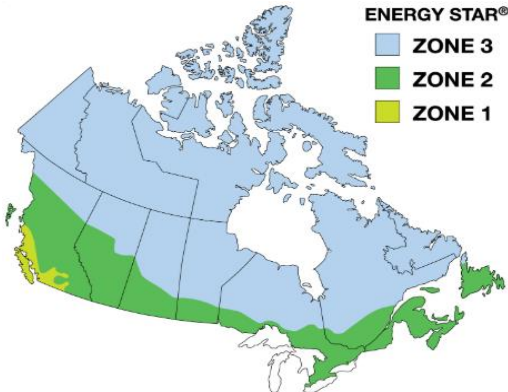
# Thermal Performance Data

Premium Wood Double Hung Picture Windows (6122)

**WEATHER SHIELD.**

**WINDOWS & DOORS**

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

Canadian Qualification Criteria	Climate Zone	U-Value	or	Energy Rating
 <p>As of February 2015</p>	Zone 1	$\leq 1.60$		$\geq 25$
	Zone 2	$\leq 1.40$		$\geq 29$
	Zone 3	$\leq 1.20$		$\geq 34$
	Air Leakage $\leq 0.3$ cfm/ft <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/3mm glass lite thicknesses.

ENERGY PERFORMANCE DATA								ENERGY STAR		CANADIAN ENERGY PERFORMANCE DATA				ENERGY STAR					
Premium Wood Double Hung Picture Windows (6122)								US ENERGY STAR V 6.0						CANADA ENERGY STAR v 4.1					
Grille Option	Glazing thickness	aNFRC Total Unit Calculations bGlazing 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	1	2	3	
No GIA or SDL	3/4"	Clear Insul	WEA-N-331-00001-00001	0.44	0.57	0.60	45					2.50	0.6	0.02	18				
	3/4"	Insul Low-E	WEA-N-331-00002-00001	0.31	0.31	0.53	57					1.76	0.6	0.02	19				
	3/4"	Insul Low E w/Argon	WEA-N-331-00010-00001	0.28	0.30	0.53	61		Y			1.59	0.6	0.02	22	Y			
	3/4"	Passive Solar	WEA-N-331-00005-00001	0.32	0.50	0.58	57					1.82	0.6	0.02	29	Y			
	3/4"	Passive Solar w/Argon	WEA-N-331-00013-00001	0.29	0.50	0.58	60	Y				1.65	0.6	0.02	33	Y	Y		
	3/4"	Passive Solar Extreme	WEA-N-331-00006-00001	0.27	0.46	0.57	44	Y				1.53	0.6	0.02	33	Y	Y		
	3/4"	Passive Solar Extreme w/Argon	WEA-N-331-00014-00001	0.25	0.46	0.57	47	Y				1.42	0.6	0.02	35	Y	Y	Y	
	3/4"	Zo-e-shield 5	WEA-N-331-00003-00001	0.31	0.20	0.47	58				Y		1.76	0.6	0.02	13			
	3/4"	Zo-e-shield 5 w/ Argon	WEA-N-331-00011-00001	0.27	0.20	0.47	61	Y	Y	Y	Y		1.53	0.6	0.02	18	Y		
	3/4"	Zo-e-shield 5 Extreme	WEA-N-331-00004-00001	0.26	0.20	0.46	45	Y	Y	Y	Y		1.48	0.6	0.02	19	Y		
	3/4"	Zo-e-shield 5 Extreme w/ Argon	WEA-N-331-00012-00001	0.24	0.20	0.46	49	Y	Y	Y	Y		1.36	0.6	0.02	22	Y	Y	
	3/4"	Zo-e-shield 6	WEA-N-331-00051-00001	0.31	0.20	0.47	59				Y		1.76	0.6	0.02	13			
	3/4"	Zo-e-shield 6 w/ Argon	WEA-N-331-00059-00001	0.27	0.20	0.47	62	Y	Y	Y	Y		1.53	0.6	0.02	18	Y		
	3/4"	Zo-e SafeGuard Certified	WEA-N-331-00056-00001	0.31	0.20	0.46	59				Y		1.76	0.6	0.02	13			
	3/4"	Zo-e SafeGuard Certified w/ Argon	WEA-N-331-00064-00001	0.27	0.20	0.46	63	Y	Y	Y	Y		1.53	0.6	0.02	18	Y		
	3/4"	Zo-e-shield 7	WEA-N-331-00033-00001	0.25	0.19	0.38	66	Y	Y	Y	Y		1.42	0.6	0.02	20	Y		
	3/4"	Zo-e-shield 7 w/ Argon	WEA-N-331-00037-00001	0.21	0.18	0.38	66	Y	Y	Y	Y		1.19	0.6	0.02	24	Y	Y	Y
	3/4"	Insul Low-E 240	WEA-N-331-00007-00001	0.32	0.19	0.29	57				Y		1.82	0.6	0.02	11			
	3/4"	Insul Low-E 240 w/Argon	WEA-N-331-00015-00001	0.28	0.19	0.29	60		Y	Y	Y		1.59	0.6	0.02	16	Y		
	3/4"	Insul Low-E 340	WEA-N-331-00008-00001	0.31	0.14	0.28	57				Y		1.76	0.6	0.02	10			
3/4"	Insul Low-E 340 w/Argon	WEA-N-331-00016-00001	0.28	0.13	0.28	61		Y	Y	Y		1.59	0.6	0.02	13				
3/4"	Bronze Low E	WEA-N-331-00002-00011	0.31	0.29	0.39	57						1.76	0.6	0.02	18				
3/4"	Bronze Low E w/Argon	WEA-N-331-00010-00011	0.28	0.29	0.39	61		Y				1.59	0.6	0.02	22	Y			
Less Than 1" GIA or SDL	3/4"	Clear Insul	WEA-N-331-00001-00002	0.44	0.51	0.53	45					2.50	0.6	0.02	15				
	3/4"	Insul Low-E	WEA-N-331-00002-00002	0.31	0.28	0.47	57					1.76	0.6	0.02	18				
	3/4"	Insul Low E w/Argon	WEA-N-331-00010-00002	0.28	0.27	0.47	61		Y			1.59	0.6	0.02	21	Y			
	3/4"	Passive Solar	WEA-N-331-00005-00002	0.32	0.45	0.51	57					1.82	0.6	0.02	26	Y			
	3/4"	Passive Solar w/Argon	WEA-N-331-00013-00002	0.29	0.45	0.51	60	Y				1.65	0.6	0.02	30	Y	Y		
	3/4"	Passive Solar Extreme	WEA-N-331-00006-00002	0.27	0.41	0.50	44	Y				1.53	0.6	0.02	30	Y	Y		
	3/4"	Passive Solar Extreme w/Argon	WEA-N-331-00014-00002	0.25	0.41	0.50	47	Y				1.42	0.6	0.02	33	Y	Y		
	3/4"	Zo-e-shield 5	WEA-N-331-00003-00002	0.31	0.18	0.42	58				Y		1.76	0.6	0.02	12			
	3/4"	Zo-e-shield 5 w/ Argon	WEA-N-331-00011-00002	0.27	0.18	0.42	61	Y	Y	Y	Y		1.53	0.6	0.02	17	Y		
	3/4"	Zo-e-shield 5 Extreme	WEA-N-331-00004-00002	0.26	0.18	0.41	45	Y	Y	Y	Y		1.48	0.6	0.02	18	Y		
	3/4"	Zo-e-shield 5 Extreme w/ Argon	WEA-N-331-00012-00002	0.24	0.18	0.41	49	Y	Y	Y	Y		1.36	0.6	0.02	21	Y	Y	
	3/4"	Zo-e-shield 6	WEA-N-331-00051-00002	0.31	0.18	0.41	59				Y		1.76	0.6	0.02	12			
	3/4"	Zo-e-shield 6 w/ Argon	WEA-N-331-00059-00002	0.27	0.18	0.41	62	Y	Y	Y	Y		1.53	0.6	0.02	17	Y		
	3/4"	Zo-e SafeGuard Certified	WEA-N-331-00056-00002	0.31	0.18	0.41	59				Y		1.76	0.6	0.02	12			
	3/4"	Zo-e SafeGuard Certified w/ Argon	WEA-N-331-00064-00002	0.27	0.18	0.41	63	Y	Y	Y	Y		1.53	0.6	0.02	17	Y		
	3/4"	Zo-e-shield 7	WEA-N-331-00034-00001	0.25	0.17	0.34	66	Y	Y	Y	Y		1.42	0.6	0.02	19	Y		
	3/4"	Zo-e-shield 7 w/ Argon	WEA-N-331-00038-00001	0.22	0.17	0.34	66	Y	Y	Y	Y		1.25	0.6	0.02	22	Y	Y	
	3/4"	Insul Low-E 240	WEA-N-331-00007-00002	0.32	0.17	0.26	57				Y		1.82	0.6	0.02	10			
	3/4"	Insul Low-E 240 w/Argon	WEA-N-331-00015-00002	0.28	0.17	0.26	60		Y	Y	Y		1.59	0.6	0.02	15			
	3/4"	Insul Low-E 340	WEA-N-331-00008-00002	0.31	0.12	0.25	57				Y		1.76	0.6	0.02	8			
3/4"	Insul Low-E 340 w/Argon	WEA-N-331-00016-00002	0.28	0.12	0.25	61		Y	Y	Y		1.59	0.6	0.02	12				
3/4"	Bronze Low E	WEA-N-331-00002-00012	0.31	0.26	0.35	57						1.76	0.6	0.02	16				
3/4"	Bronze Low E w/Argon	WEA-N-331-00010-00012	0.28	0.26	0.35	61		Y				1.59	0.6	0.02	20	Y			
1" Or Over GIA or SDL	3/4"	Clear Insul	WEA-N-331-00001-00003	0.44	0.45	0.47	45					2.50	0.6	0.02	11				
	3/4"	Insul Low-E	WEA-N-331-00002-00003	0.31	0.25	0.41	57				Y		1.76	0.6	0.02	16			
	3/4"	Insul Low E w/Argon	WEA-N-331-00010-00003	0.28	0.24	0.41	61		Y	Y	Y		1.59	0.6	0.02	19	Y		
	3/4"	Passive Solar	WEA-N-331-00005-00003	0.32	0.40	0.45	57					1.82	0.6	0.02	23				
	3/4"	Passive Solar w/Argon	WEA-N-331-00013-00003	0.29	0.40	0.45	60	Y	Y			1.65	0.6	0.02	27	Y			
	3/4"	Passive Solar Extreme	WEA-N-331-00006-00003	0.27	0.36	0.44	44	Y	Y			1.53	0.6	0.02	27	Y			
	3/4"	Passive Solar Extreme w/Argon	WEA-N-331-00014-00003	0.25	0.36	0.44	47	Y	Y			1.42	0.6	0.02	30	Y	Y		
	3/4"	Zo-e-shield 5	WEA-N-331-00003-00003	0.31	0.17	0.37	58				Y		1.76	0.6	0.02	11			
	3/4"	Zo-e-shield 5 w/ Argon	WEA-N-331-00011-00003	0.27	0.16	0.37	61	Y	Y	Y	Y		1.53	0.6	0.02	16			
	3/4"	Zo-e-shield 5 Extreme	WEA-N-331-00004-00003	0.26	0.16	0.36	45	Y	Y	Y	Y		1.48	0.6	0.02	17	Y		
	3/4"	Zo-e-shield 5 Extreme w/ Argon	WEA-N-331-00012-00003	0.24	0.16	0.36	49	Y	Y	Y	Y		1.36	0.6	0.02	19	Y		
	3/4"	Zo-e-shield 6	WEA-N-331-00051-00003	0.31	0.16	0.37	59				Y		1.76	0.6	0.02	11			
	3/4"	Zo-e-shield 6 w/ Argon	WEA-N-331-00059-00003	0.27	0.16	0.37	62	Y	Y	Y	Y		1.53	0.6	0.02	16			
	3/4"	Zo-e SafeGuard Certified	WEA-N-331-00056-00003	0.31	0.16	0.36	59				Y		1.76	0.6	0.02	11			
	3/4"	Zo-e SafeGuard Certified w/ Argon	WEA-N-331-00064-00003	0.27	0.16	0.36	63	Y	Y	Y	Y		1.53	0.6	0.02	16			
	3/4"	Zo-e-shield 7	WEA-N-331-00034-00002	0.25	0.15	0.30	66	Y	Y	Y	Y		1.42	0.6	0.02	18	Y		
	3/4"	Zo-e-shield 7 w/ Argon	WEA-N-331-00038-00002	0.22	0.15	0.30	66	Y	Y	Y	Y		1.25	0.6	0.02	21	Y	Y	
	3/4"	Insul Low-E 240	WEA-N-331-00007-00003	0.32	0.16	0.23	57				Y		1.82	0.6	0.02	9			
	3/4"	Insul Low-E 240 w/Argon	WEA-N-331-00015-00003	0.28	0.15	0.23	60		Y	Y	Y		1.59	0.6	0.02	14			
	3/4"	Insul Low-E 340	WEA-N-331-00008-00003	0.31	0.11	0.22	57				Y		1.76	0.6	0.02	8			
3/4"	Insul Low-E 340 w/Argon	WEA-N-331-00016-00003	0.28	0.11	0.22	61		Y	Y	Y		1.59	0.6	0.02	11				
3/4"	Bronze Low E	WEA-N-331-00002-00013	0.31	0.23	0.31	57				Y		1.76	0.6	0.02	15				
3/4"	Bronze Low E w/Argon	WEA-N-331-00010-00013	0.28	0.23	0.31	61		Y	Y	Y		1.59	0.6	0.02	18	Y			