

# Thermal Performance Data

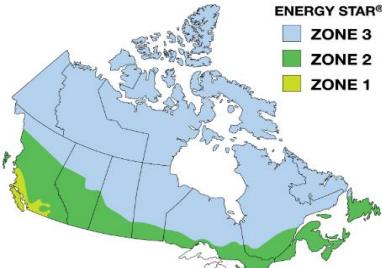
Premium Push Out Awning Windows (8217)

**WEATHER SHIELD.**

WINDOWS & DOORS

US Qualification Criteria		Climate Zone	U-Value	SHGC	
		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
		Zone 1	<=1.60		>=25
		Zone 2	<=1.40		>=29
		Zone 3	<=1.20		>=34
Air Leakage <= 0.3 cfm/ft <sup>2</sup>					

As of January 2016

As of February 2015

## 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								CANADIAN ENERGY PEFORMANCE DATA				CANADA ENERGY STAR v 4.1						
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 6.0				U-Value (metric)	Maximum Air Leakage L/s/m <sup>2</sup>	Air Infiltration/Air Exfiltration Average	Energy Rating	1	2	3
								N	NC	SC	S							
No GIA or SDL	3/4"	Clear Insul	WEA-N-324-00033-00001	0.47	0.54	0.56	48					2.67	0.6	0.04	13			
	3/4"	Insul Low-E	WEA-N-324-00034-00001	0.34	0.29	0.49	54					1.93	0.6	0.04	14			
	3/4"	Insul Low E w/Argon	WEA-N-324-00042-00001	0.31	0.29	0.49	57					1.76	0.6	0.04	18			
	3/4"	Passive Solar	WEA-N-324-00036-00001	0.35	0.45	0.54	54					1.99	0.6	0.04	22			
	3/4"	Passive Solar w/Argon	WEA-N-324-00044-00001	0.32	0.45	0.54	57					1.82	0.6	0.04	26	Y		
	3/4"	Passive Solar Extreme	WEA-N-324-00040-00001	0.31	0.43	0.53	41					1.76	0.6	0.04	26	Y		
	3/4"	Passive Solar Extreme w/Argon	WEA-N-324-00048-00001	0.29	0.43	0.53	44	Y				1.65	0.6	0.04	29	Y		
	3/4"	Zo-e-shield 5	WEA-N-324-00035-00001	0.34	0.20	0.44	54					1.93	0.6	0.04	9			
	3/4"	Zo-e-shield 5 w/ Argon	WEA-N-324-00043-00001	0.31	0.19	0.44	58					1.76	0.6	0.04	12			
	3/4"	Zo-e-shield 5 Extreme	WEA-N-324-00039-00001	0.30	0.19	0.43	42		Y	Y	Y	1.70	0.6	0.04	14			
	3/4"	Zo-e-shield 5 Extreme w/ Argon	WEA-N-324-00047-00001	0.28	0.19	0.43	46		Y	Y	Y	1.59	0.6	0.04	16	Y		
	3/4"	Zo-e-shield 6	WEA-N-324-00175-00001	0.34	0.19	0.43	53					1.93	0.6	0.04	9			
	3/4"	Zo-e-shield 6 w/ Argon	WEA-N-324-00182-00001	0.31	0.19	0.43	56					1.76	0.6	0.04	12			
	3/4"	Zo-e SafeGuard Certified	WEA-N-324-00178-00001	0.33	0.19	0.43	49					1.87	0.6	0.04	10			
	3/4"	Zo-e SafeGuard Certified w/ Argon	WEA-N-324-00185-00001	0.30	0.19	0.43	56		Y	Y	Y	1.70	0.6	0.04	14			
	1"	Zo-e-shield 7	WEA-N-324-00203-00001	0.28	0.18	0.35	65		Y	Y	Y	1.59	0.6	0.04	15			
	1"	Zo-e-shield 7 w/ Argon	WEA-N-324-00205-00001	0.24	0.18	0.35	67	Y	Y	Y	Y	1.36	0.6	0.04	21	Y	Y	
	3/4"	Insul Low-E 240	WEA-N-324-00037-00001	0.35	0.18	0.27	53					1.99	0.6	0.04	7			
	3/4"	Insul Low-E 240 w/Argon	WEA-N-324-00045-00001	0.32	0.18	0.27	57					1.82	0.6	0.04	10			
	3/4"	Insul Low-E 340	WEA-N-324-00038-00001	0.34	0.13	0.27	54					1.93	0.6	0.04	5			
	3/4"	Insul Low-E 340 w/Argon	WEA-N-324-00046-00001	0.31	0.13	0.27	58					1.76	0.6	0.04	9			
	3/4"	Bronze Low E	WEA-N-324-00034-00011	0.34	0.28	0.37	54					1.93	0.6	0.04	14			
	3/4"	Bronze Low E w/Argon	WEA-N-324-00042-00011	0.31	0.28	0.37	57					1.76	0.6	0.04	18			
Less Than 1" GIA or SDL	3/4"	Clear Insul	WEA-N-324-00033-00002	0.47	0.49	0.51	48					2.67	0.6	0.04	10			
	3/4"	Insul Low-E	WEA-N-324-00034-00002	0.34	0.27	0.44	54					1.93	0.6	0.04	13			
	3/4"	Insul Low E w/Argon	WEA-N-324-00042-00002	0.31	0.27	0.44	57					1.76	0.6	0.04	17			
	3/4"	Passive Solar	WEA-N-324-00036-00002	0.35	0.41	0.49	54					1.99	0.6	0.04	20			
	3/4"	Passive Solar w/Argon	WEA-N-324-00044-00002	0.32	0.41	0.49	57					1.82	0.6	0.04	24			
	3/4"	Passive Solar Extreme	WEA-N-324-00040-00002	0.31	0.39	0.48	41					1.76	0.6	0.04	24			
	3/4"	Passive Solar Extreme w/Argon	WEA-N-324-00048-00002	0.29	0.39	0.48	44	Y	Y			1.65	0.6	0.04	26	Y		
	3/4"	Zo-e-shield 5	WEA-N-324-00035-00002	0.34	0.18	0.40	54					1.93	0.6	0.04	8			
	3/4"	Zo-e-shield 5 w/ Argon	WEA-N-324-00043-00002	0.31	0.18	0.40	58					1.76	0.6	0.04	12			
	3/4"	Zo-e-shield 5 Extreme	WEA-N-324-00039-00002	0.30	0.18	0.39	42		Y	Y	Y	1.70	0.6	0.04	13			
	3/4"	Zo-e-shield 5 Extreme w/ Argon	WEA-N-324-00047-00002	0.28	0.17	0.39	46		Y	Y	Y	1.59	0.6	0.04	15			
	3/4"	Zo-e-shield 6	WEA-N-324-00175-00002	0.34	0.18	0.39	53					1.93	0.6	0.04	8			
	3/4"	Zo-e-shield 6 w/ Argon	WEA-N-324-00182-00002	0.31	0.18	0.39	56					1.76	0.6	0.04	12			
	3/4"	Zo-e SafeGuard Certified	WEA-N-324-00178-00002	0.33	0.18	0.39	49					1.87	0.6	0.04	9			
	3/4"	Zo-e SafeGuard Certified w/ Argon	WEA-N-324-00185-00002	0.30	0.18	0.39	56		Y	Y	Y	1.70	0.6	0.04	13			
	1"	Zo-e-shield 7	WEA-N-324-00207-00001	0.28	0.17	0.32	65		Y	Y	Y	1.59	0.6	0.04	15			
	1"	Zo-e-shield 7 w/ Argon	WEA-N-324-00209-00001	0.25	0.16	0.32	67	Y	Y	Y	Y	1.42	0.6	0.04	18	Y		
1" Or Over GIA or SDL	3/4"	Insul Low-E 240	WEA-N-324-00037-00002	0.35	0.17	0.25	53					1.99	0.6	0.04	6			
	3/4"	Insul Low-E 240 w/Argon	WEA-N-324-00045-00002	0.32	0.17	0.25	57					1.82	0.6	0.04	10			
	3/4"	Insul Low-E 340	WEA-N-324-00038-00002	0.34	0.12	0.24	54					1.93	0.6	0.04	5			
	3/4"	Insul Low-E 340 w/Argon	WEA-N-324-00046-00002	0.31	0.12	0.24	58					1.76	0.6	0.04	8			
	3/4"	Bronze Low E	WEA-N-324-00034-00012	0.34	0.25	0.33	54					1.93	0.6	0.04	12			
	3/4"	Bronze Low E w/Argon	WEA-N-324-00042-00012	0.31	0.25	0.33	57					1.76	0.6	0.04	16			
	3/4"	Clear Insul	WEA-N-324-00033-00003	0.47	0.44	0.46	48					2.67	0.6	0.04	7			
	3/4"	Insul Low-E	WEA-N-324-00034-00003	0.34	0.24	0.40	54					1.93	0.6	0.04	12			
	3/4"	Insul Low E w/Argon	WEA-N-324-00042-00003	0.31	0.24	0.40	57					1.76	0.6	0.04	15			
	3/4"	Passive Solar	WEA-N-324-00036-00003	0.35	0.37	0.44	54					1.99	0.6	0.04	18			
	3/4"	Passive Solar w/Argon	WEA-N-324-00044-00003	0.32	0.37	0.44	57					1.82	0.6	0.04	21			
	3/4"	Passive Solar Extreme	WEA-N-324-00040-00003	0.31	0.36	0.43	41					1.76	0.6	0.04	22			
	3/4"	Passive Solar Extreme w/Argon	WEA-N-324-00048-00003	0.29	0.36	0.43	44	Y				1.65	0.6	0.04	25			
	3/4"	Zo-e-shield 5	WEA-N-324-00035-00003	0.34	0.17	0.36	54					1.93	0.6	0.04	7			
	3/4"	Zo-e-shield 5 w/ Argon	WEA-N-324-00043-00003	0.31	0.16	0.36	58					1.76	0.6	0.04	11			
	3/4"	Zo-e-shield 5 Extreme	WEA-N-324-00039-00003	0.30	0.16	0.35	42		Y	Y	Y	1.70	0.6	0.04	12			
	3/4"	Zo-e-shield 5 Extreme w/ Argon	WEA-N-324-00047-00003	0.28	0.16	0.35	46		Y	Y	Y	1.59	0.6	0.04	14			
	3/4"	Zo-e-shield 6	WEA-N-324-00175-00003	0.34	0.16	0.35	53					1.93	0.6	0.04	7			
	3/4"	Zo-e-shield 6 w/ Argon	WEA-N-324-00182-00003	0.31	0.16	0.35	56					1.76	0.6	0.04	11			
	3/4"	Zo-e SafeGuard Certified	WEA-N-324-00178-00003	0.33	0.16	0.35	49					1.87	0.6	0.04	8			
	3/4"	Zo-e SafeGuard Certified w/ Argon	WEA-N-324-00185-00003	0.30	0.16	0.35	56		Y	Y	Y	1.70	0.6	0.04	12			
	1"	Zo-e-shield 7	WEA-N-324-00207-00002	0.28	0.15	0.29	65		Y	Y	Y	1.59	0.6	0.04	14			
	1"	Zo-e-shield 7 w/ Argon	WEA-N-324-00209-00002	0.25	0.15	0.29	67	Y	Y	Y	Y	1.42	0.6	0.04	17	Y		
3/4" Glazing	3/4"	Insul Low-E 240	WEA-N-324-00037-00003	0.35	0.16	0.22	53					1.99	0.6	0.04	6			
	3/4"	Insul Low-E 240 w/Argon	WEA-N-324-00045-00003	0.32	0.15	0.22	57					1.82	0.6	0.04	9			
	3/4"	Insul Low-E 340	WEA-N-324-00038-00003	0.34	0.11	0.22	54					1.93	0.6	0.04	4			
	3/4"	Insul Low-E 340 w/Argon	WEA-N-324-00046-00003	0.31	0.11	0.22	58											