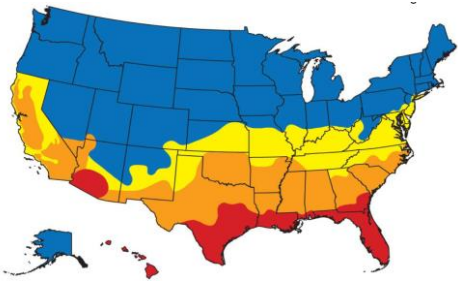
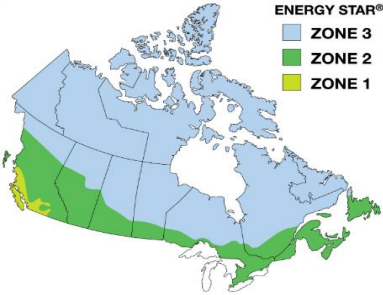


Thermal Performance Data

Contemporary Flush Frame Direct-set Windows (8312)

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>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

Contemporary Flush Frame Direct-set Windows (8312)



US ENERGY STAR V 6.0

CANADIAN ENERGY PERFORMANCE DATA



CANADA ENERGY STAR v 4.1

Grille Option	Glazing thickness	³NFRC Total Unit Calculations ⁴Glazing Option	CPD #	U-Value	Solar Heat Gain Coefficient	Visible Light Transmittance	Condensation Resistance Rating	ENERGY STAR				U-Value (metric)	Maximum Air Leakage Ls/m²	Air Infiltration/Exfiltration Average	Energy Rating	ENERGY STAR		
								N	NC	SC	S					1	2	3
								US ENERGY STAR V 6.0								CANADA ENERGY STAR v 4.1		
No GIA or SDL	3/4"	Clear Insul	WEA-N-310-00516-00001	0.49	0.67	0.71	41					2.78	0.6	0.05	18			
	3/4"	Insul Low-E	WEA-N-310-00517-00001	0.34	0.36	0.62	51					1.93	0.6	0.05	18			
	3/4"	Insul Low E w/Argon	WEA-N-310-00525-00001	0.30	0.36	0.62	54		Y			1.70	0.6	0.05	23			
	3/4"	Passive Solar	WEA-N-310-00519-00001	0.35	0.59	0.68	51					1.99	0.6	0.05	30	Y	Y	
	3/4"	Passive Solar w/Argon	WEA-N-310-00527-00001	0.31	0.59	0.68	54					1.76	0.6	0.05	35	Y	Y	Y
	3/4"	Passive Solar Extreme	WEA-N-310-00522-00001	0.29	0.54	0.67	39	Y				1.65	0.6	0.05	35	Y	Y	Y
	3/4"	Passive Solar Extreme w/Argon	WEA-N-310-00530-00001	0.26	0.54	0.67	42	Y				1.48	0.6	0.05	39	Y	Y	Y
	3/4"	Zo-e-shield 5	WEA-N-310-00518-00001	0.33	0.24	0.56	51				Y	1.87	0.6	0.05	13			
	3/4"	Zo-e-shield 5 w/ Argon	WEA-N-310-00526-00001	0.30	0.24	0.56	55		Y	Y	Y	1.70	0.6	0.05	17			
	3/4"	Zo-e-shield 5 Extreme	WEA-N-310-00523-00001	0.28	0.24	0.54	40		Y	Y	Y	1.59	0.6	0.05	19	Y		
	3/4"	Zo-e-shield 5 Extreme w/ Argon	WEA-N-310-00531-00001	0.25	0.23	0.54	44	Y	Y	Y	Y	1.42	0.6	0.05	22	Y		
	3/4"	Zo-e-shield 6	WEA-N-310-00582-00001	0.33	0.24	0.55	52				Y	1.87	0.6	0.05	13			
	3/4"	Zo-e-shield 6 w/ Argon	WEA-N-310-00590-00001	0.29	0.23	0.55	55		Y	Y	Y	1.65	0.6	0.05	17			
	3/4"	Zo-e SafeGuard Certified	WEA-N-310-00587-00001	0.33	0.24	0.55	52				Y	1.87	0.6	0.05	13			
	3/4"	Zo-e SafeGuard Certified w/ Argon	WEA-N-310-00595-00001	0.29	0.23	0.55	55		Y	Y	Y	1.65	0.6	0.05	17			
	3/4"	Zo-e-shield 7	WEA-N-310-00622-00001	0.26	0.22	0.44	60	Y	Y	Y	Y	1.48	0.6	0.05	20	Y		
	3/4"	Zo-e-shield 7 w/ Argon	WEA-N-310-00626-00001	0.22	0.22	0.44	63	Y	Y	Y	Y	1.25	0.6	0.05	25	Y	Y	
	3/4"	Insul Low-E 240	WEA-N-310-00520-00001	0.34	0.23	0.34	51				Y	1.93	0.6	0.05	11			
	3/4"	Insul Low-E 240 w/Argon	WEA-N-310-00528-00001	0.31	0.22	0.34	54				Y	1.76	0.6	0.05	14			
	3/4"	Insul Low-E 340	WEA-N-310-00521-00001	0.34	0.16	0.33	51				Y	1.93	0.6	0.05	7			
3/4"	Insul Low-E 340 w/Argon	WEA-N-310-00529-00001	0.30	0.16	0.33	54		Y	Y	Y	1.70	0.6	0.05	12				
3/4"	Bronze Low E	WEA-N-310-00517-00011	0.34	0.34	0.46	51					1.93	0.6	0.05	17				
3/4"	Bronze Low E w/Argon	WEA-N-310-00525-00011	0.30	0.34	0.46	54		Y			1.70	0.6	0.05	22				
Less Than 1" GIA or SDL	3/4"	Clear Insul	WEA-N-310-00516-00002	0.49	0.61	0.64	41					2.78	0.6	0.05	14			
	3/4"	Insul Low-E	WEA-N-310-00517-00002	0.34	0.33	0.56	51					1.93	0.6	0.05	17			
	3/4"	Insul Low E w/Argon	WEA-N-310-00525-00002	0.30	0.33	0.56	54		Y			1.70	0.6	0.05	22			
	3/4"	Passive Solar	WEA-N-310-00519-00002	0.35	0.53	0.61	51					1.99	0.6	0.05	27	Y		
	3/4"	Passive Solar w/Argon	WEA-N-310-00527-00002	0.31	0.54	0.61	54					1.76	0.6	0.05	33	Y	Y	
	3/4"	Passive Solar Extreme	WEA-N-310-00522-00002	0.29	0.49	0.60	39	Y				1.65	0.6	0.05	32	Y	Y	
	3/4"	Passive Solar Extreme w/Argon	WEA-N-310-00530-00002	0.26	0.49	0.60	42	Y				1.48	0.6	0.05	36	Y	Y	Y
	3/4"	Zo-e-shield 5	WEA-N-310-00518-00002	0.33	0.22	0.50	51				Y	1.87	0.6	0.05	12			
	3/4"	Zo-e-shield 5 w/ Argon	WEA-N-310-00526-00002	0.30	0.22	0.50	55		Y	Y	Y	1.70	0.6	0.05	15			
	3/4"	Zo-e-shield 5 Extreme	WEA-N-310-00523-00002	0.28	0.22	0.49	40		Y	Y	Y	1.59	0.6	0.05	18	Y		
	3/4"	Zo-e-shield 5 Extreme w/ Argon	WEA-N-310-00531-00002	0.25	0.21	0.49	44	Y	Y	Y	Y	1.42	0.6	0.05	21	Y		
	3/4"	Zo-e-shield 6	WEA-N-310-00582-00002	0.33	0.22	0.49	52				Y	1.87	0.6	0.05	12			
	3/4"	Zo-e-shield 6 w/ Argon	WEA-N-310-00590-00002	0.29	0.21	0.49	55		Y	Y	Y	1.65	0.6	0.05	16			
	3/4"	Zo-e SafeGuard Certified	WEA-N-310-00587-00002	0.33	0.22	0.49	52				Y	1.87	0.6	0.05	12			
	3/4"	Zo-e SafeGuard Certified w/ Argon	WEA-N-310-00595-00002	0.29	0.21	0.49	55		Y	Y	Y	1.65	0.6	0.05	16			
	3/4"	Zo-e-shield 7	WEA-N-310-00623-00001	0.26	0.20	0.40	60	Y	Y	Y	Y	1.48	0.6	0.05	19	Y		
	3/4"	Zo-e-shield 7 w/ Argon	WEA-N-310-00627-00001	0.22	0.20	0.40	63	Y	Y	Y	Y	1.25	0.6	0.05	24	Y	Y	
	3/4"	Insul Low-E 240	WEA-N-310-00520-00002	0.34	0.21	0.31	51				Y	1.93	0.6	0.05	10			
	3/4"	Insul Low-E 240 w/Argon	WEA-N-310-00528-00002	0.31	0.20	0.31	54				Y	1.76	0.6	0.05	13			
	3/4"	Insul Low-E 340	WEA-N-310-00521-00002	0.34	0.15	0.30	51				Y	1.93	0.6	0.05	6			
3/4"	Insul Low-E 340 w/Argon	WEA-N-310-00529-00002	0.30	0.14	0.30	54		Y	Y	Y	1.70	0.6	0.05	11				
3/4"	Bronze Low E	WEA-N-310-00517-00012	0.34	0.31	0.42	51					1.93	0.6	0.05	16				
3/4"	Bronze Low E w/Argon	WEA-N-310-00525-00012	0.30	0.31	0.42	54		Y			1.70	0.6	0.05	21				
1" Or Over GIA or SDL	3/4"	Clear Insul	WEA-N-310-00516-00003	0.49	0.54	0.57	41					2.78	0.6	0.05	10			
	3/4"	Insul Low-E	WEA-N-310-00517-00003	0.34	0.30	0.49	51					1.93	0.6	0.05	15			
	3/4"	Insul Low E w/Argon	WEA-N-310-00525-00003	0.30	0.29	0.49	54		Y			1.70	0.6	0.05	19			
	3/4"	Passive Solar	WEA-N-310-00519-00003	0.35	0.48	0.54	51					1.99	0.6	0.05	24			
	3/4"	Passive Solar w/Argon	WEA-N-310-00527-00003	0.31	0.48	0.54	54					1.76	0.6	0.05	29	Y	Y	
	3/4"	Passive Solar Extreme	WEA-N-310-00522-00003	0.29	0.44	0.53	39	Y				1.65	0.6	0.05	29	Y	Y	
	3/4"	Passive Solar Extreme w/Argon	WEA-N-310-00530-00003	0.26	0.44	0.53	42	Y				1.48	0.6	0.05	33	Y	Y	
	3/4"	Zo-e-shield 5	WEA-N-310-00518-00003	0.33	0.20	0.45	51				Y	1.87	0.6	0.05	11			
	3/4"	Zo-e-shield 5 w/ Argon	WEA-N-310-00526-00003	0.30	0.20	0.45	55		Y	Y	Y	1.70	0.6	0.05	14			
	3/4"	Zo-e-shield 5 Extreme	WEA-N-310-00523-00003	0.28	0.20	0.44	40		Y	Y	Y	1.59	0.6	0.05	17	Y		
	3/4"	Zo-e-shield 5 Extreme w/ Argon	WEA-N-310-00531-00003	0.25	0.19	0.44	44	Y	Y	Y	Y	1.42	0.6	0.05	20	Y		
	3/4"	Zo-e-shield 6	WEA-N-310-00582-00003	0.33	0.20	0.44	52				Y	1.87	0.6	0.05	11			
	3/4"	Zo-e-shield 6 w/ Argon	WEA-N-310-00590-00003	0.29	0.19	0.44	55		Y	Y	Y	1.65	0.6	0.05	15			
	3/4"	Zo-e SafeGuard Certified	WEA-N-310-00587-00003	0.33	0.20	0.44	52				Y	1.87	0.6	0.05	11			
	3/4"	Zo-e SafeGuard Certified w/ Argon	WEA-N-310-00595-00003	0.29	0.19	0.44	55		Y	Y	Y	1.65	0.6	0.05	15			
	3/4"	Zo-e-shield 7	WEA-N-310-00623-00002	0.26	0.18	0.36	60	Y	Y	Y	Y	1.48	0.6	0.05	18	Y		
	3/4"	Zo-e-shield 7 w/ Argon	WEA-N-310-00627-00002	0.22	0.18	0.36	63	Y	Y	Y	Y	1.25	0.6	0.05	23	Y	Y	
	3/4"	Insul Low-E 240	WEA-N-310-00520-00003	0.34	0.19	0.28	51				Y	1.93	0.6	0.05	9			
	3/4"	Insul Low-E 240 w/Argon	WEA-N-310-00528-00003	0.31	0.18	0.28	54				Y	1.76	0.6	0.05	12			
	3/4"	Insul Low-E 340	WEA-N-310-00521-00003	0.34	0.14	0.27	51				Y	1.93	0.6	0.05	6			
3/4"	Insul Low-E 340 w/Argon	WEA-N-310-00529-00003	0.30	0.13	0.27	54		Y	Y	Y	1.70	0.6	0.05	10				
3/4"	Bronze Low E	WEA-N-310-00517-00013	0.34	0.28	0.37	51					1.93	0.6	0.05	14				
3/4"	Bronze Low E w/Argon	WEA-N-310-00525-00013	0.30	0.28	0.37	54		Y			1.70	0.6	0.05	19				