

# Thermal Performance Data

Premium 2-1/4" Inswing Side Hinge French Door (8511)

WEATHER SHIELD.

WINDOWS & DOORS

US Qualification Criteria		Climate Zone	U-Value	SHGC
 As of January 2016	Northern	<=0.30	<=0.40	
	North-Central			
	South-Central			
	Southern			<=0.25

Canadian Qualification Criteria		Climate Zone	U-Value	or	Energy Rating
 As of February 2015	ENERGY STAR®	Zone 1 Zone 2 Zone 3	<=1.60	>=25 >=29 >=34	>=25 >=29 >=34
	ZONE 3		<=1.40		
	ZONE 2		<=1.20		
Air Leakage <= 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								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	1"	Clear Insul	WEA-N-248-00475-00001	0.43	0.43	0.45	48					2.44	0.6	0.02	11			
	1"	Insul Low-E	WEA-N-248-00476-00001	0.34	0.23	0.39	57				Y	1.93	0.6	0.02	11			
	1"	Insul Low E w/Argon	WEA-N-248-00484-00001	0.32	0.23	0.39	58				Y	1.82	0.6	0.02	13			
	1"	Passive Solar	WEA-N-248-00479-00001	0.35	0.38	0.43	57					1.99	0.6	0.02	18			
	1"	Passive Solar w/Argon	WEA-N-248-00487-00001	0.32	0.38	0.43	58					1.82	0.6	0.02	22			
	1"	Passive Solar Extreme	WEA-N-248-00480-00001	0.30	0.35	0.42	44		Y			1.70	0.6	0.02	23			
	1"	Passive Solar Extreme w/Argon	WEA-N-248-00488-00001	0.29	0.35	0.42	47		Y			1.65	0.6	0.02	24			
	1"	Zo-e-shield 5	WEA-N-248-00477-00001	0.34	0.16	0.36	58				Y	1.93	0.6	0.02	7			
	1"	Zo-e-shield 5 w/ Argon	WEA-N-248-00485-00001	0.31	0.16	0.36	58				Y	1.76	0.6	0.02	11			
	1"	Zo-e-shield 5 Extreme	WEA-N-248-00478-00001	0.30	0.15	0.35	45		Y	Y	Y	1.70	0.6	0.02	11			
	1"	Zo-e-shield 5 Extreme w/ Argon	WEA-N-248-00486-00001	0.28	0.15	0.35	49		Y	Y	Y	1.59	0.6	0.02	14			
	1"	Zo-e-shield 6	WEA-N-248-00541-00001	0.33	0.16	0.35	57				Y	1.87	0.6	0.02	8			
	1"	Zo-e-shield 6 w/ Argon	WEA-N-248-00549-00001	0.31	0.16	0.35	58				Y	1.76	0.6	0.02	11			
	1"	Zo-e SafeGuard Certified	WEA-N-248-00546-00001	0.33	0.16	0.35	57				Y	1.87	0.6	0.02	8			
	1"	Zo-e SafeGuard Certified w/ Argon	WEA-N-248-00554-00001	0.31	0.15	0.35	58				Y	1.76	0.6	0.02	10			
	1"	Insul Low-E 240	WEA-N-248-00481-00001	0.35	0.15	0.22	57				Y	1.99	0.6	0.02	5			
	1"	Insul Low-E 240 w/Argon	WEA-N-248-00489-00001	0.32	0.15	0.22	58				Y	1.82	0.6	0.02	9			
	1"	Insul Low-E 340	WEA-N-248-00482-00001	0.34	0.11	0.21	58				Y	1.93	0.6	0.02	4			
	1"	Insul Low-E 340 w/Argon	WEA-N-248-00490-00001	0.32	0.11	0.21	58				Y	1.82	0.6	0.02	6			
	1"	Bronze Low E	WEA-N-248-00476-00011	0.34	0.22	0.30	57				Y	1.93	0.6	0.02	10			
	1"	Bronze Low E w/Argon	WEA-N-248-00484-00011	0.32	0.22	0.30	58				Y	1.82	0.6	0.02	13			
Less Than 1" GIA or SDL	1"	Clear Insul	WEA-N-248-00475-00002	0.43	0.37	0.38	48					2.44	0.6	0.02	8			
	1"	Insul Low-E	WEA-N-248-00476-00002	0.34	0.20	0.34	57				Y	1.93	0.6	0.02	9			
	1"	Insul Low E w/Argon	WEA-N-248-00484-00002	0.32	0.20	0.34	58				Y	1.82	0.6	0.02	12			
	1"	Passive Solar	WEA-N-248-00479-00002	0.35	0.33	0.37	57					1.99	0.6	0.02	15			
	1"	Passive Solar w/Argon	WEA-N-248-00487-00002	0.32	0.33	0.37	58					1.82	0.6	0.02	19			
	1"	Passive Solar Extreme	WEA-N-248-00480-00002	0.30	0.30	0.36	44		Y			1.70	0.6	0.02	20			
	1"	Passive Solar Extreme w/Argon	WEA-N-248-00488-00002	0.29	0.30	0.36	47		Y			1.65	0.6	0.02	21			
	1"	Zo-e-shield 5	WEA-N-248-00477-00002	0.34	0.14	0.30	58				Y	1.93	0.6	0.02	6			
	1"	Zo-e-shield 5 w/ Argon	WEA-N-248-00485-00002	0.31	0.14	0.30	58				Y	1.76	0.6	0.02	10			
	1"	Zo-e-shield 5 Extreme	WEA-N-248-00478-00002	0.30	0.13	0.29	45		Y	Y	Y	1.70	0.6	0.02	10			
	1"	Zo-e-shield 5 Extreme w/ Argon	WEA-N-248-00486-00002	0.28	0.13	0.29	49		Y	Y	Y	1.59	0.6	0.02	13			
	1"	Zo-e-shield 6	WEA-N-248-00541-00002	0.33	0.14	0.30	57				Y	1.87	0.6	0.02	7			
	1"	Zo-e-shield 6 w/ Argon	WEA-N-248-00549-00002	0.31	0.14	0.30	58				Y	1.76	0.6	0.02	10			
	1"	Zo-e SafeGuard Certified	WEA-N-248-00546-00002	0.33	0.14	0.29	57				Y	1.87	0.6	0.02	7			
	1"	Zo-e SafeGuard Certified w/ Argon	WEA-N-248-00554-00002	0.31	0.13	0.29	58				Y	1.76	0.6	0.02	9			
	1"	Zo-e-shield 7	WEA-N-248-00492-00001	0.29	0.13	0.24	58		Y	Y	Y	1.65	0.6	0.02	11			
	1"	Zo-e-shield 7 w/ Argon	WEA-N-248-00496-00001	0.27	0.13	0.24	58		Y	Y	Y	1.53	0.6	0.02	14			
	1"	Insul Low-E 240	WEA-N-248-00481-00002	0.35	0.13	0.19	57				Y	1.99	0.6	0.02	4			
	1"	Insul Low-E 240 w/Argon	WEA-N-248-00489-00002	0.32	0.13	0.19	58				Y	1.82	0.6	0.02	8			
	1"	Insul Low-E 340	WEA-N-248-00482-00002	0.34	0.10	0.18	58				Y	1.93	0.6	0.02	3			
	1"	Insul Low-E 340 w/Argon	WEA-N-248-00490-00002	0.32	0.09	0.18	58				Y	1.82	0.6	0.02	5			
	1"	Bronze Low E	WEA-N-248-00476-00012	0.34	0.19	0.25	57				Y	1.93	0.6	0.02	9			
	1"	Bronze Low E w/Argon	WEA-N-248-00484-00012	0.32	0.19	0.25	58				Y	1.82	0.6	0.02	11			
1" Or Over GIA or SDL	1"	Clear Insul	WEA-N-248-00475-00003	0.43	0.32	0.32	48					2.44	0.6	0.02	5			
	1"	Insul Low-E	WEA-N-248-00476-00003	0.34	0.17	0.28	57				Y	1.93	0.6	0.02	8			
	1"	Insul Low E w/Argon	WEA-N-248-00484-00003	0.32	0.17	0.28	58				Y	1.82	0.6	0.02	10			
	1"	Passive Solar	WEA-N-248-00479-00003	0.35	0.28	0.31	57					1.99	0.6	0.02	13			
	1"	Passive Solar w/Argon	WEA-N-248-00487-00003	0.32	0.28	0.31	58					1.82	0.6	0.02	16			
	1"	Passive Solar Extreme	WEA-N-248-00480-00003	0.30	0.26	0.30	44		Y			1.70	0.6	0.02	18			
	1"	Passive Solar Extreme w/Argon	WEA-N-248-00488-00003	0.29	0.26	0.30	47		Y			1.65	0.6	0.02	19			
	1"	Zo-e-shield 5	WEA-N-248-00477-00003	0.34	0.12	0.25	58				Y	1.93	0.6	0.02	5			
	1"	Zo-e-shield 5 w/ Argon	WEA-N-248-00485-00003	0.31	0.12	0.25	58				Y	1.76	0.6	0.02	8			
	1"	Zo-e-shield 5 Extreme	WEA-N-248-00478-00003	0.30	0.12	0.25	45		Y	Y	Y	1.70	0.6	0.02	10			
	1"	Zo-e-shield 5 Extreme w/ Argon	WEA-N-248-00486-00003	0.28	0.12	0.25	49		Y	Y	Y	1.59	0.6	0.02	12			
	1"	Zo-e-shield 6	WEA-N-248-00541-00003	0.33	0.12	0.25	57				Y	1.87	0.6	0.02	6			
	1"	Zo-e-shield 6 w/ Argon	WEA-N-248-00549-00003	0.31	0.12	0.25	58				Y	1.76	0.6	0.02	8			
	1"	Zo-e SafeGuard Certified	WEA-N-248-00546-00003	0.33	0.12	0.25	57				Y	1.87	0.6	0.02	6			
	1"	Zo-e SafeGuard Certified w/ Argon	WEA-N-248-00554-00003	0.31	0.12	0.25	58				Y	1.76	0.6	0.02	8			
	1"	Insul Low-E 240	WEA-N-248-00481-00003	0.35	0.11	0.16	57				Y	1.99	0.6	0.02	3			
	1"	Insul Low-E 240 w/Argon	WEA-N-248-00489-00003	0.32	0.11	0.16	58				Y	1.82	0.6	0.02	6			
	1"	Insul Low-E 340	WEA-N-248-00482-00003	0.34	0.08	0.15	58				Y	1.93	0.6	0.02	2			
	1"	Insul Low-E 340 w/Argon	WEA-N-248-00490-00003	0.32	0.08	0.15	58				Y	1.82	0.6	0.02	5			
	1"	Bronze Low E	WEA-N-248-00476-00013	0.34	0.17	0.21	57				Y	1.93	0.6	0.02	8			
	1"	Bronze Low E w/Argon	WEA-N-248-00484-00013	0.32	0.17	0.21	58				Y	1.82	0.6	0.02	10			