



Manufacturer's Certification **Ply Gem Windows – West Premium 1000, Pro** **and Contractor Replacement Series**

Ply Gem Windows, located at 4415 Pheasant Ridge Road, Suite 300, Roanoke, Virginia 24014, manufactures certain exterior windows and doors that, when purchased with optional Low-E glass products, argon gas fill and spacer system upgrades in a single, double or triple glazed unit, meet or exceed the prescriptive criteria established by the IECC for all climate zones in which the window or doors are installed.

To qualify for the 2011 federal tax credit, exterior windows and doors must meet the ENERGY STAR requirements for the climate zone in which they are installed. The Ply Gem window and door products shown on Attachment A qualify for this tax credit. To qualify for the tax credit, homeowners must purchase the qualifying products and install between January 1, 2011 and December 31, 2011.

To certify the qualifying Ply Gem Windows products for purposes of the tax credits available, **Ply Gem Windows represents that its window and door products meet the ENERGY STAR zone requirements shown on Attachment A and are “Eligible Building Envelope Component(s)” that qualify for the federal income tax credit.**

Homeowners should consult their tax advisor to determine whether they qualify for any potential income tax credits.

Under penalties of perjury, I declare that I have examined this certification statement, and to the best of my knowledge and belief, the facts are true, correct, and complete.

A handwritten signature in black ink, appearing to read 'Lynn Morstad'.

Lynn Morstad
President, Ply Gem Windows

August, 2011
www.plygemwindows.com



PREMIUM SERIES
WINDOWS

1000

ATTACHMENT A

Product Type / Popular Glazing Options	U-Factor (Center of Glass)	R-value (Center of Glass)	Total Unit R-value	NFRC Certified Values					Energy Star Qualified					
				NFRC CPD Number	Total Unit U-Factor	SHGC	VT	CR	Northern	North-Central	South-Central	Southern		
Double Hung														
WarmEdge Spacer														
HP (Low E Argon IGU)	0.26	3.9	3.2	PWG-M-31	0.31	0.27	0.51	52	•	•	•	•		
Grilles (<1")	0.26	3.9	3.2		0.31	0.24	0.25	52	•	•	•	•		
Sculptured Grilles (>1")	0.26	3.9	3.2		0.31	0.21	0.40	52	•	•	•	•		
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.25	4.0	3.2		0.31	0.20	0.40	52	•	•	•	•		
Grilles (<1")	0.25	4.0	3.2		0.31	0.18	0.35	52	•	•	•	•		
Sculptured Grilles (>1")	0.25	4.0	3.2		0.31	0.16	0.31	52	•	•	•	•		
HP2+ (Double Low E Argon IGU)	0.21	4.8	3.7		0.27	0.26	0.50	41	•	•	•	•		
Grilles (<1")	0.21	4.8	3.7		0.27	0.24	0.44	41	•	•	•	•		
HP2Max (Triple Pane Double Low E Argon IGU)	0.18	5.6	3.8		0.26	0.23	0.39	64	•	•	•	•		
Grilles (<1")	0.18	5.6	3.8		0.26	0.21	0.35	64	•	•	•	•		
HP3Max (Triple Pane Triple Low E Argon IGU)	0.16	6.3	4.5		0.22	0.21	0.38	53	•	•	•	•		
Grilles (Width<1")	0.16	6.3	4.3		0.23	0.19	0.34	53	•	•	•	•		
EP - Insulated & Reinforced Sash Option														
HP (Low E Argon IGU)	0.26	3.8	3.3		0.30	0.27	0.51	52	•	•	•	•		
Grilles (<1")	0.26	3.8	3.3		0.30	0.24	0.45	52	•	•	•	•		
Sculptured Grilles (>1")	0.26	3.8	3.3		0.30	0.21	0.40	52	•	•	•	•		
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.25	4.0	3.3		0.30	0.20	0.40	52	•	•	•	•		
Grilles (<1")	0.25	4.0	3.3		0.30	0.18	0.35	52	•	•	•	•		
Sculptured Grilles (>1")	0.25	4.0	3.3		0.30	0.16	0.31	52	•	•	•	•		
HP2+ (Double Low E Argon IGU)	0.21	4.8	3.8		0.26	0.26	0.50	41	•	•	•	•		
Grilles (<1")	0.21	4.8	3.8		0.26	0.24	0.44	41	•	•	•	•		
HP2Max (Triple Pane Double Low E Argon IGU)	0.18	5.6	4.0		0.25	0.23	0.39	64	•	•	•	•		
Grilles (<1")	0.18	5.6	4.0		0.25	0.21	0.35	64	•	•	•	•		
HP3Max (Triple Pane Triple Low E Argon IGU)	0.16	6.3	4.5		0.22	0.21	0.38	53	•	•	•	•		
Grilles (Width<1")	0.16	6.3	4.5		0.22	0.19	0.34	53	•	•	•	•		
WarmEdge Plus+ Spacer														
HP (Low E Argon IGU)	0.25	4.0	3.3		0.30	0.27	0.51	56	•	•	•	•		
Grilles (<1")	0.25	4.0	3.3		0.30	0.24	0.45	56	•	•	•	•		
Sculptured Grilles (>1")	0.25	4.0	3.3	0.30	0.21	0.40	56	•	•	•	•			
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.24	4.2	3.4	0.29	0.20	0.40	57	•	•	•	•			
Grilles (<1")	0.24	4.2	3.4	0.29	0.18	0.35	57	•	•	•	•			
Sculptured Grilles (>1")	0.24	4.2	3.4	0.29	0.16	0.31	57	•	•	•	•			
HP2+ (Double Low E Argon IGU)	0.21	4.8	3.8	0.26	0.26	0.50	43	•	•	•	•			
Grilles (<1")	0.21	4.8	3.8	0.26	0.24	0.44	43	•	•	•	•			
EP - Insulated & Reinforced Sash Option														
HP (Low E Argon IGU)	0.24	4.2	3.4	0.29	0.27	0.51	59	•	•	•	•			
Grilles (<1")	0.24	4.2	3.4	0.29	0.24	0.45	59	•	•	•	•			
Sculptured Grilles (>1")	0.24	4.2	3.4	0.29	0.22	0.40	59	•	•	•	•			
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.23	4.3	3.6	0.28	0.20	0.40	59	•	•	•	•			
Grilles (<1")	0.23	4.3	3.6	0.28	0.18	0.36	59	•	•	•	•			
Sculptured Grilles (>1")	0.23	4.3	3.6	0.28	0.16	0.31	59	•	•	•	•			
HP2+ (Double Low E Argon IGU)	0.21	4.8	4.0	0.25	0.26	0.50	44	•	•	•	•			
Grilles (<1")	0.21	4.8	4.0	0.25	0.24	0.44	44	•	•	•	•			
R-5 Option														
HP3Max (Triple Pane Triple Low E Argon IGU)	0.16	6.3	4.6	0.22	0.21	0.38	53	•	•	•	•			
Grilles (Width<1")	0.16	6.3	4.6	0.22	0.19	0.34	53	•	•	•	•			



PREMIUM SERIES
WINDOWS

1000

ATTACHMENT A

Product Type / Popular Glazing Options	U-Factor (Center of Glass)	R-value (Center of Glass)	Total Unit R-value	NFR Certified Values					Energy Star Qualified				
				NFRC CPD Number	Total Unit U-Factor	SHGC	VT	CR	Northern	North-Central	South-Central	Southern	
Slider													
WarmEdge Spacer													
HP (Low E Argon IGU)	0.26	3.8	3.3	PWG-M-35	0.30	0.26	0.50	54	•	•	•	•	
Grilles (<1")	0.26	3.8	3.3		0.30	0.24	0.44	54	•	•	•	•	
Sculptured Grilles (>1")	0.26	3.8	3.3		0.30	0.21	0.39	54	•	•	•	•	
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.25	4.0	3.3		0.30	0.20	0.39	54	•	•	•	•	
Grilles (<1")	0.25	4.0	3.3		0.30	0.18	0.35	54	•	•	•	•	
Sculptured Grilles (>1")	0.25	4.0	3.3		0.30	0.16	0.31	54	•	•	•	•	
HP2+ (Double Low E Argon IGU)	0.21	4.8	3.8		0.26	0.26	0.49	45	•	•	•	•	
Grilles (<1")	0.21	4.8	3.8		0.26	0.23	0.43	45	•	•	•	•	
HP2Max (Triple Pane Double Low E Argon IGU)	0.18	5.6	4.2		0.24	0.23	0.39	61	•	•	•	•	
Grilles (<1")	0.18	5.6	4.2		0.24	0.21	0.35	61	•	•	•	•	
HP3Max (Triple Pane Triple Low E Argon IGU)	0.16	6.3	4.5		0.22	0.20	0.38	52	•	•	•	•	
Grilles (Width<1")	0.16	6.3	4.5		0.22	0.18	0.34	52	•	•	•	•	
EP - Insulated & Reinforced Sash Option													
HP (Low E Argon IGU)	0.26	3.8	3.4		0.29	0.26	0.50	54	•	•	•	•	
Grilles (<1")	0.26	3.8	3.4		0.29	0.24	0.44	54	•	•	•	•	
Sculptured Grilles (>1")	0.26	3.8	3.4		0.29	0.21	0.39	54	•	•	•	•	
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.25	4.0	3.4		0.29	0.20	0.39	54	•	•	•	•	
Grilles (<1")	0.25	4.0	3.4		0.29	0.18	0.35	54	•	•	•	•	
Sculptured Grilles (>1")	0.25	4.0	3.4		0.29	0.16	0.31	54	•	•	•	•	
HP2+ (Double Low E Argon IGU)	0.21	4.8	3.8		0.26	0.26	0.49	45	•	•	•	•	
Grilles (<1")	0.21	4.8	3.8		0.26	0.23	0.43	45	•	•	•	•	
HP2Max (Triple Pane Double Low E Argon IGU)	0.18	5.6	4.3		0.23	0.23	0.39	61	•	•	•	•	
Grilles (<1")	0.18	5.6	4.2		0.24	0.21	0.35	61	•	•	•	•	
HP3Max (Triple Pane Triple Low E Argon IGU)	0.16	6.3	4.8		0.21	0.20	0.38	52	•	•	•	•	
Grilles (Width<1")	0.16	6.3	4.8		0.21	0.18	0.34	52	•	•	•	•	
WarmEdge Plus+ Spacer													
HP (Low E Argon IGU)	0.26	3.8	3.4		0.29	0.26	0.50	59	•	•	•	•	
Grilles (<1")	0.26	3.8	3.4		0.29	0.24	0.44	59	•	•	•	•	
Sculptured Grilles (>1")	0.26	3.8	3.4		0.29	0.21	0.39	59	•	•	•	•	
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.25	4.0	3.4		0.29	0.20	0.39	59	•	•	•	•	
Grilles (<1")	0.25	4.0	3.4		0.29	0.18	0.35	59	•	•	•	•	
Sculptured Grilles (>1")	0.25	4.0	3.4		0.29	0.16	0.31	59	•	•	•	•	
HP2+ (Double Low E Argon IGU)	0.21	4.8	4.0		0.25	0.26	0.49	48	•	•	•	•	
Grilles (<1")	0.21	4.8	4.0		0.25	0.23	0.43	48	•	•	•	•	
EP - Insulated & Reinforced Sash Option													
HP (Low E Argon IGU)	0.26	3.8	3.6		0.28	0.26	0.50	59	•	•	•	•	
Grilles (<1")	0.26	3.8	3.6		0.28	0.24	0.44	59	•	•	•	•	
Sculptured Grilles (>1")	0.26	3.8	3.6		0.28	0.21	0.39	59	•	•	•	•	
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.25	4.0	3.6		0.28	0.20	0.39	59	•	•	•	•	
Grilles (<1")	0.25	4.0	3.6		0.28	0.18	0.35	59	•	•	•	•	
Sculptured Grilles (>1")	0.25	4.0	3.6		0.28	0.16	0.31	59	•	•	•	•	
HP2+ (Double Low E Argon IGU)	0.21	4.8	4.0		0.25	0.26	0.49	48	•	•	•	•	
Grilles (<1")	0.21	4.8	4.0		0.25	0.23	0.43	48	•	•	•	•	
R-5 Option													
HP3Max (Triple Pane Triple Low E Argon IGU)	0.16	6.3	4.8		0.21	0.22	0.38	53	•	•	•	•	
Grilles (Width<1")	0.16	6.3	4.8		0.21	0.20	0.33	53	•	•	•	•	



PREMIUM SERIES
WINDOWS

1000

ATTACHMENT A

Product Type / Popular Glazing Options	U-Factor (Center of Glass)	R-value (Center of Glass)	Total Unit R-value	NFRC Certified Values					Energy Star Qualified					
				NFRC CPD Number	Total Unit U-Factor	SHGC	VT	CR	Northern	North-Central	South-Central	Southern		
Fixed Window														
WarmEdge Spacer														
HP (Low E Argon IGU)	0.26	3.8	3.6	PWG-M-41	0.28	0.32	0.61	56	•	•	•	•		
Grilles (<1")	0.26	3.8	3.6		0.28	0.29	0.55	56	•	•	•	•	•	
Sculptured Grilles (>1")	0.26	3.8	3.6		0.28	0.26	0.49	56	•	•	•	•	•	
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.25	4.0	3.6		0.28	0.24	0.28	57	•	•	•	•	•	
Grilles (<1")	0.25	4.0	3.6		0.28	0.22	0.43	57	•	•	•	•	•	
Sculptured Grilles (>1")	0.25	4.0	3.6		0.28	0.20	0.39	57	•	•	•	•	•	
HP2+ (Double Low E Argon IGU)	0.22	4.5	4.3		0.23	0.30	0.57	45	•	•	•	•	•	
Grilles (<1")	0.22	4.5	4.3		0.23	0.27	0.51	45	•	•	•	•	•	
HP2Max (Triple Pane Double Low E Argon IGU)	0.17	5.9	5.3		0.19	0.28	0.47	66	•	•	•	•	•	
Grilles (<1")	0.17	5.9	4.8		0.21	0.25	0.43	66	•	•	•	•	•	
HP3Max (Triple Pane Triple Low E Argon IGU)	0.14	7.1	5.9		0.17	0.23	0.44	55	•	•	•	•	•	
Grilles (Width<1")	0.14	7.1	5.6		0.18	0.21	0.39	55	•	•	•	•	•	
WarmEdge Plus+ Spacer														
HP (Low E Argon IGU)	0.26	3.8	3.7		0.27	0.32	0.61	59	•	•	•	•	•	
Grilles (<1")	0.26	3.8	3.7		0.27	0.29	0.55	59	•	•	•	•	•	
Sculptured Grilles (>1")	0.26	3.8	3.7		0.27	0.26	0.49	59	•	•	•	•	•	
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.25	4.0	3.8		0.26	0.24	0.48	59	•	•	•	•	•	
Grilles (<1")	0.25	4.0	3.8		0.26	0.22	0.43	59	•	•	•	•	•	
Sculptured Grilles (>1")	0.25	4.0	3.8		0.26	0.20	0.39	59	•	•	•	•	•	
HP2+ (Double Low E Argon IGU)	0.22	4.5	4.3		0.23	0.30	0.57	47	•	•	•	•	•	
Grilles (<1")	0.22	4.5	4.3		0.23	0.27	0.51	47	•	•	•	•	•	
R-5 Option														
HP3Max (Triple Pane Triple Low E Argon IGU)	0.16	6.3	5.7		0.17	0.23	0.44	55	•	•	•	•	•	
Grilles (Width<1")	0.16	6.3	5.6		0.18	0.21	0.39	55	•	•	•	•	•	
Casement														
WarmEdge Spacer														
HP (Low E Argon IGU)	0.26	3.8	3.4		PWG-M-131	0.29	0.24	0.45	59	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.26	3.8	3.4			0.29	0.22	0.40	59	•	•	•	•	•
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.25	4.0	3.4	0.29		0.18	0.35	59	•	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.25	4.0	3.4	0.29		0.17	0.32	59	•	•	•	•	•	
HPMax (Triple Pane Double Low E Argon IGU)	0.18	5.6	4.3	0.23		0.21	0.35	65	•	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.18	5.6	4.2	0.24		0.19	0.31	65	•	•	•	•	•	
WarmEdge Plus+ Spacer														
HP (Low E Argon IGU)	0.26	3.8	3.6	0.28		0.24	0.45	62	•	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.26	3.8	3.6	0.28		0.22	0.40	62	•	•	•	•	•	
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.25	4.0	3.6	0.28		0.18	0.35	62	•	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.25	4.0	3.6	0.28		0.17	0.32	62	•	•	•	•	•	
Awning														
WarmEdge Spacer														
HP (Low E Argon IGU)	0.26	3.8	3.4	PWG-M-130		0.29	0.24	0.45	59	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.26	3.8	3.4			0.29	0.22	0.40	59	•	•	•	•	•
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.25	4.0	3.6			0.28	0.18	0.35	59	•	•	•	•	•
Grilles (<1"), Standard and Sculptured	0.25	4.0	3.6			0.28	0.17	0.32	59	•	•	•	•	•
HPMax (Triple Pane Double Low E Argon IGU)	0.18	5.6	4.3			0.23	0.21	0.35	65	•	•	•	•	•
Grilles (<1"), Standard and Sculptured	0.18	5.6	4.3			0.23	0.19	0.31	65	•	•	•	•	•
WarmEdge Plus+ Spacer														
HP (Low E Argon IGU)	0.26	3.8	3.6			0.28	0.24	0.45	62	•	•	•	•	•
Grilles (<1"), Standard and Sculptured	0.26	3.8	3.6			0.28	0.22	0.40	62	•	•	•	•	•
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.25	4.0	3.6			0.28	0.18	0.35	62	•	•	•	•	•
Grilles (<1"), Standard and Sculptured	0.25	4.0	3.6			0.28	0.17	0.32	62	•	•	•	•	•
Fixed Casement														
WarmEdge Spacer														
HP (Low E Argon IGU)	0.26	3.8	3.4			PWG-M-132	0.29	0.31	0.58	58	•	•	•	•
Grilles (<1"), Standard and Sculptured	0.26	3.8	3.4				0.29	0.28	0.52	58	•	•	•	•
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.25	4.0	3.6		0.28		0.23	0.46	58	•	•	•	•	•
Grilles (<1"), Standard and Sculptured	0.25	4.0	3.6		0.28		0.21	0.41	58	•	•	•	•	•
HPMax (Triple Pane Double Low E Argon IGU)	0.18	5.6	4.8		0.21		0.26	0.45	65	•	•	•	•	•
Grilles (<1"), Standard and Sculptured	0.18	5.6	4.5		0.22		0.24	0.40	65	•	•	•	•	•
WarmEdge Plus+ Spacer														
HP (Low E Argon IGU)	0.26	3.8	3.6		0.28		0.30	0.58	61	•	•	•	•	•
Grilles (<1"), Standard and Sculptured	0.26	3.8	3.6		0.28		0.28	0.52	61	•	•	•	•	•
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.25	4.0	3.6		0.28		0.23	0.46	61	•	•	•	•	•
Grilles (<1"), Standard and Sculptured	0.25	4.0	3.6		0.28		0.21	0.41	61	•	•	•	•	•



PREMIUM SERIES
WINDOWS

1000

ATTACHMENT A

Product Type / Popular Glazing Options	U-Factor (Center of Glass)	R-value (Center of Glass)	Total Unit R-value	NFRC Certified Values					Energy Star Qualified			
				NFRC CPD Number	Total Unit U-Factor	SHGC	VT	CR	Northern	North-Central	South-Central	Southern
Sliding Patio Door												
WarmEdge Spacer												
Clear IGU	0.49	2.0	2.3		0.43	0.54	0.56	43				
Grilles (<1")	0.49	2.0	2.3		0.43	0.47	0.49	43				
Sculptured Grilles (>1")	0.49	2.0	2.3		0.43	0.41	0.42	43				
HP (Low E Argon IGU)	0.26	3.8	3.4		0.29	0.22	0.44	57	•	•	•	•
Grilles (<1")	0.26	3.8	3.4		0.29	0.20	0.38	57	•	•	•	•
Sculptured Grilles (>1")	0.26	3.8	3.4		0.29	0.17	0.33	57	•	•	•	•
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.26	3.8	3.4		0.29	0.19	0.38	57	•	•	•	•
Grilles (<1")	0.26	3.8	3.4		0.29	0.17	0.33	57	•	•	•	•
Sculptured Grilles (>1")	0.26	3.8	3.4		0.29	0.15	0.28	57	•	•	•	•
HP2+ (Double Low E Argon IGU)	0.22	4.5	4.0		0.25	0.22	0.43	47	•	•	•	•
Grilles (<1")	0.22	4.5	4.0		0.25	0.19	0.37	47	•	•	•	•
HP2Max (Triple Pane Double Low E Argon IGU)	0.17	5.9	4.5		0.22	0.20	0.31	64	•	•	•	•
Grilles (<1")	0.17	5.9	4.3		0.23	0.17	0.27	64	•	•	•	•
HP3Max (Triple Pane Triple Low E Argon IGU)	0.14	7.1	4.9		0.21	0.17	0.30	55	•	•	•	•
Grilles (Width<1")	0.14	7.1	4.8		0.21	0.15	0.26	55	•	•	•	•
WarmEdge Plus+ Spacer												
Clear IGU	N/A	N/A	N/A	PWG-M-47	N/A	N/A	N/A	N/A	-	-	-	-
Grilles (<1")	N/A	N/A	N/A		N/A	N/A	N/A	N/A	-	-	-	-
Sculptured Grilles (>1")	N/A	N/A	N/A		N/A	N/A	N/A	N/A	-	-	-	-
HP (Low E Argon IGU)	0.26	3.8	3.6		0.28	0.22	0.44	63	•	•	•	•
Grilles (<1")	0.26	3.8	3.6		0.28	0.20	0.38	63	•	•	•	•
Sculptured Grilles (>1")	0.26	3.8	3.6		0.28	0.17	0.33	63	•	•	•	•
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.26	3.8	3.6		0.28	0.19	0.38	63	•	•	•	•
Grilles (<1")	0.26	3.8	3.6		0.28	0.17	0.33	63	•	•	•	•
Sculptured Grilles (>1")	0.26	3.8	3.6		0.28	0.15	0.28	63	•	•	•	•
HP2+ (Double Low E Argon IGU)	0.22	4.5	4.0		0.25	0.22	0.43	47	•	•	•	•
Grilles (<1")	0.22	4.5	4.0		0.25	0.19	0.37	47	•	•	•	•
R-5 Option												
HP3Max (Triple Pane Triple Low E Argon IGU)	0.14	7.1	4.8		0.21	0.17	0.30	55	•	•	•	•
Grilles (Width<1")	0.14	7.1	4.8		0.21	0.15	0.26	55	•	•	•	•
Hinged Patio Door - Inswing												
WarmEdge Spacer												
HPMax (Triple Pane Double Low E Argon IGU)	0.18	5.6	3.4		0.29	0.20	0.33	56	•	•	•	•
Grilles (<1"), Standard and Sculptured	0.18	5.6	3.3		0.30	0.18	0.28	56	•	•	•	•
WarmEdge Plus+ Spacer												
HP (Low E Argon IGU)	0.26	3.8	3.1		0.32	0.23	0.43	54	•	•	•	•
Grilles (<1"), Standard and Sculptured	0.26	3.8	3.1		0.32	0.20	0.37	54	•	•	•	•
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.25	4.0	3.2		0.31	0.17	0.34	54	•	•	•	•
Grilles (<1"), Standard and Sculptured	0.25	4.0	3.2		0.31	0.15	0.29	54	•	•	•	•
Hinged Patio Door - Outswing												
WarmEdge Spacer												
HP (Low E Argon IGU)	0.26	3.8	3.1		0.32	0.23	0.43	59	•	•	•	•
Grilles (<1"), Standard and Sculptured	0.26	3.8	3.1		0.32	0.21	0.37	59	•	•	•	•
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.25	4.0	3.1		0.32	0.18	0.34	59	•	•	•	•
Grilles (<1"), Standard and Sculptured	0.25	4.0	3.1		0.32	0.16	0.29	59	•	•	•	•
HPMax (Triple Pane Double Low E Argon IGU)	0.18	5.6	3.6		0.28	0.21	0.33	60	•	•	•	•
Grilles (<1"), Standard and Sculptured	0.18	5.6	3.4		0.29	0.18	0.29	60	•	•	•	•
WarmEdge Plus+ Spacer												
HP (Low E Argon IGU)	0.26	3.8	3.2		0.31	0.23	0.43	60	•	•	•	•
Grilles (<1"), Standard and Sculptured	0.26	3.8	3.2		0.31	0.21	0.37	60	•	•	•	•
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.25	4.0	3.2		0.31	0.18	0.34	60	•	•	•	•
Grilles (<1"), Standard and Sculptured	0.25	4.0	3.2		0.31	0.16	0.29	60	•	•	•	•

Option does NOT meet ENERGY STAR zone requirements for 2011 federal energy tax credit.
 • Option is Energy Star Qualified per zone.

NFRC (National Fenestration Rating Council)

- CPD - Certified Product Directory
- SHGC - Solar Heat Gain Coefficient
- VT - Visible Light Transmission
- CR - Condensation Resistance

- U-Factor - Rate of Heat Loss
- R-Value - Resistance to Heat Flow



Footnotes: Total unit values: Single strength glass for all dual & triple pane windows.
 Total unit values: Double strength glass for all dual & triple pane Patio Doors, Picture Windows and Architectural Shapes.



PRO Series

ATTACHMENT A

Product Type / Popular Glazing Options	U-Factor (Center of Glass)	R-value (Center of Glass)	Total Unit R-value	NFRC Certified Values					Energy Star Qualified				
				NFRC CPD Number	Total Unit U-Factor	SHGC	VT	CR	Northern	North-Central	South-Central	Southern	
200 Single Hung													
WarmEdge Spacer													
HP (Low E Argon IGU)	0.26	3.8	3.2	PWG-M-122	0.31	0.29	0.55	59	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.26	3.8	3.1		0.32	0.26	0.49	59	•	•	•	•	
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.25	4.0	3.3		0.30	0.22	0.43	59	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.25	4.0	3.1		0.32	0.20	0.38	59	•	•	•	•	
HP2+ (Double Low E Argon IGU)	0.20	5.0	3.7		0.27	0.27	0.49	43	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.20	5.0	3.6		0.28	0.25	0.44	43	•	•	•	•	
HP2Max (Triple Pane Double Low E Argon IGU)	0.17	5.9	4.2		0.24	0.25	0.42	62	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.17	5.9	4.2		0.24	0.23	0.38	62	•	•	•	•	
HP3Max (Triple Pane Double Low E Argon IGU)	0.15	6.7	4.3		0.23	0.22	0.41	53	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.15	6.7	4.3		0.23	0.20	0.37	53	•	•	•	•	
WarmEdge Plus+ Spacer													
HP (Low E Argon IGU)	0.26	3.8	3.3		0.30	0.29	0.55	62	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.26	3.8	3.3		0.30	0.26	0.49	62	•	•	•	•	
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.25	4.0	3.4		0.29	0.22	0.43	62	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.25	4.0	3.3		0.30	0.20	0.38	62	•	•	•	•	
HP2+ (Double Low E Argon IGU)	0.20	5.0	3.8		0.26	0.27	0.49	47	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.20	5.0	3.7		0.27	0.25	0.44	46	•	•	•	•	
R-5 Option													
HP3Max (Triple Pane Double Low E Argon IGU)	0.15	6.7	4.5		0.22	0.22	0.41	56	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.15	6.7	4.5		0.22	0.20	0.37	56	•	•	•	•	
200 Slider													
WarmEdge Spacer													
HP (Low E Argon IGU)	0.26	3.8	3.2	PWG-M-121	0.31	0.29	0.55	59	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.26	3.8	3.1		0.32	0.26	0.49	59	•	•	•	•	
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.25	4.0	3.3		0.30	0.22	0.43	59	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.25	4.0	3.1		0.32	0.20	0.38	59	•	•	•	•	
HP2+ (Double Low E Argon IGU)	0.20	5.0	3.7		0.27	0.27	0.49	43	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.20	5.0	3.6		0.28	0.25	0.44	43	•	•	•	•	
HP2Max (Triple Pane Double Low E Argon IGU)	0.17	5.9	4.2		0.24	0.25	0.42	63	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.17	5.9	4.2		0.24	0.23	0.38	63	•	•	•	•	
HP3Max (Triple Pane Double Low E Argon IGU)	0.15	6.7	4.3		0.23	0.22	0.41	52	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.15	6.7	4.3		0.23	0.20	0.37	52	•	•	•	•	
WarmEdge Plus+ Spacer													
HP (Low E Argon IGU)	0.26	3.8	3.3		0.30	0.29	0.55	62	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.26	3.8	3.3		0.30	0.26	0.49	62	•	•	•	•	
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.25	4.0	3.4		0.29	0.22	0.43	62	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.25	4.0	3.3		0.30	0.20	0.38	62	•	•	•	•	
HP2+ (Double Low E Argon IGU)	0.20	5.0	3.8		0.26	0.27	0.49	47	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.20	5.0	3.7		0.27	0.25	0.44	47	•	•	•	•	
R-5 Option													
HP3Max (Triple Pane Double Low E Argon IGU)	0.15	6.7	4.5		0.22	0.22	0.41	56	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.15	6.7	4.5		0.22	0.20	0.37	56	•	•	•	•	



PRO Series

ATTACHMENT A

Product Type / Popular Glazing Options	U-Factor (Center of Glass)	R-value (Center of Glass)	Total Unit R-value	NFRC Certified Values					Energy Star Qualified						
				NFRC CPD Number	Total Unit U-Factor	SHGC	VT	CR	Northern	North-Central	South-Central	Southern			
200 Fixed Window															
WarmEdge Spacer															
HP (Low E Argon IGU)	0.26	3.8	3.6	PWG-M-120	0.28	0.32	0.61	58	•	•	•	•			
Grilles (<1"), Standard and Sculptured	0.26	3.8	3.3		0.30	0.29	0.55	58	•	•	•	•			
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.25	4.0	3.6		0.28	0.24	0.48	58	•	•	•	•			
Grilles (<1"), Standard and Sculptured	0.25	4.0	3.4		0.29	0.22	0.43	58	•	•	•	•			
HP2+ (Double Low E Argon IGU)	0.20	5.0	4.2		0.24	0.30	0.55	44	•	•	•	•			
Grilles (<1"), Standard and Sculptured	0.20	5.0	4.0		0.25	0.28	0.50	44	•	•	•	•			
HP2Max (Triple Pane Double Low E Argon IGU)	0.17	5.9	4.8		0.21	0.28	0.47	67	•	•	•	•			
Grilles (<1"), Standard and Sculptured	0.17	5.9	4.8		0.21	0.25	0.42	67	•	•	•	•			
HP3Max (Triple Pane Double Low E Argon IGU)	0.15	6.7	5.3		0.19	0.25	0.46	54	•	•	•	•			
Grilles (<1"), Standard and Sculptured	0.15	6.7	5.0		0.20	0.22	0.41	54	•	•	•	•			
WarmEdge Plus+ Spacer															
HP (Low E Argon IGU)	0.26	3.8	3.7		0.27	0.32	0.61	61	•	•	•	•			
Grilles (<1"), Standard and Sculptured	0.26	3.8	3.4		0.29	0.29	0.55	61	•	•	•	•			
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.25	4.0	3.7		0.27	0.24	0.48	61	•	•	•	•			
Grilles (<1"), Standard and Sculptured	0.25	4.0	3.4		0.29	0.22	0.43	61	•	•	•	•			
HP2+ (Double Low E Argon IGU)	0.20	5.0	4.3		0.23	0.30	0.55	47	•	•	•	•			
Grilles (<1"), Standard and Sculptured	0.20	5.0	4.2		0.24	0.28	0.50	47	•	•	•	•			
R-5 Option															
HP3Max (Triple Pane Double Low E Argon IGU)	0.15	6.7	5.3		0.19	0.25	0.46	54	•	•	•	•			
Grilles (<1"), Standard and Sculptured	0.15	6.7	5.0		0.20	0.22	0.41	54	•	•	•	•			



PRO Series

ATTACHMENT A

Product Type / Popular Glazing Options	U-Factor (Center of Glass)	R-value (Center of Glass)	Total Unit R-value	NFRC Certified Values					Energy Star Qualified				
				NFRC CPD Number	Total Unit U-Factor	SHGC	VT	CR	Northern	North-Central	South-Central	Southern	
700 Casement													
WarmEdge Spacer													
HP (Low E Argon IGU)	0.26	3.8	3.4	PWG-M-131	0.29	0.24	0.45	59	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.26	3.8	3.4		0.29	0.22	0.40	59	•	•	•	•	
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.25	4.0	3.4		0.29	0.18	0.35	59	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.25	4.0	3.4		0.29	0.17	0.32	59	•	•	•	•	
HP2+ (Double Low E Argon IGU)	0.20	5.0	4.0		0.25	0.22	0.40	46	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.20	5.0	4.0		0.25	0.21	0.36	46	•	•	•	•	
HP2Max (Triple Pane Double Low E Argon IGU)	0.17	5.9	4.3		0.23	0.21	0.35	65	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.17	5.9	4.2		0.24	0.19	0.31	65	•	•	•	•	
HP3Max (Triple Pane Double Low E Argon IGU)	0.15	6.7	4.8		0.21	0.18	0.32	52	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.15	6.7	4.8		0.21	0.17	0.29	52	•	•	•	•	
WarmEdge Plus+ Spacer													
HP (Low E Argon IGU)	0.26	3.8	3.6		0.28	0.24	0.45	62	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.26	3.8	3.6		0.28	0.22	0.40	62	•	•	•	•	
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.25	4.0	3.6		0.28	0.18	0.35	62	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.25	4.0	3.6		0.28	0.17	0.32	62	•	•	•	•	
HP2+ (Double Low E Argon IGU)	0.20	5.0	4.2		0.24	0.22	0.40	50	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.20	5.0	4.2		0.24	0.21	0.36	50	•	•	•	•	
R-5 Option													
HP3Max (Triple Pane Double Low E Argon IGU)	0.15	6.7	4.8		0.21	0.18	0.32	52	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.15	6.7	4.8		0.21	0.17	0.29	52	•	•	•	•	
700 Awning													
WarmEdge Spacer													
HP (Low E Argon IGU)	0.26	3.8	3.4	PWG-M-130	0.29	0.24	0.45	59	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.26	3.8	3.4		0.29	0.22	0.40	59	•	•	•	•	
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.25	4.0	3.6		0.28	0.18	0.35	59	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.25	4.0	3.6		0.28	0.17	0.32	59	•	•	•	•	
HP2+ (Double Low E Argon IGU)	0.20	5.0	4.0		0.25	0.22	0.40	45	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.20	5.0	4.0		0.25	0.20	0.36	45	•	•	•	•	
HP2Max (Triple Pane Double Low E Argon IGU)	0.17	5.9	4.3		0.23	0.21	0.35	65	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.17	5.9	4.3		0.23	0.19	0.31	65	•	•	•	•	
HP3Max (Triple Pane Double Low E Argon IGU)	0.15	6.7	4.8		0.21	0.18	0.32	54	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.15	6.7	4.8		0.21	0.17	0.29	54	•	•	•	•	
WarmEdge Plus+ Spacer													
HP (Low E Argon IGU)	0.26	3.8	3.6		0.28	0.24	0.45	62	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.26	3.8	3.6		0.28	0.22	0.40	62	•	•	•	•	
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.25	4.0	3.6		0.28	0.18	0.35	62	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.25	4.0	3.6		0.28	0.17	0.32	62	•	•	•	•	
HP2+ (Double Low E Argon IGU)	0.20	5.0	4.0		0.25	0.22	0.40	49	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.20	5.0	4.0		0.25	0.20	0.36	49	•	•	•	•	
R-5 Option													
HP3Max (Triple Pane Double Low E Argon IGU)	0.15	6.7	4.8		0.21	0.18	0.32	54	•	•	•	•	
Grilles (<1"), Standard and Sculptured	0.15	6.7	4.8		0.21	0.17	0.29	54	•	•	•	•	



PRO Series

ATTACHMENT A

Product Type / Popular Glazing Options	U-Factor (Center of Glass)	R-value (Center of Glass)	Total Unit R-value	NFRC Certified Values					Energy Star Qualified										
				NFRC CPD Number	Total Unit U-Factor	SHGC	VT	CR	Northern	North-Central	South-Central	Southern							
700 Fixed Casement																			
WarmEdge Spacer																			
HP (Low E Argon IGU)	0.26	3.8	3.4	PWG-M-132	0.29	0.31	0.58	58	•	•	•	•							
Grilles (<1"), Standard and Sculptured	0.26	3.8	3.4		0.29	0.28	0.52	58	•	•	•	•							
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.25	4.0	3.6		0.28	0.23	0.46	58	•	•	•	•							
Grilles (<1"), Standard and Sculptured	0.25	4.0	3.6		0.28	0.21	0.41	58	•	•	•	•							
HP2+ (Double Low E Argon IGU)	0.20	5.0	4.2		0.24	0.29	0.53	45	•	•	•	•							
Grilles (<1"), Standard and Sculptured	0.20	5.0	4.2		0.24	0.26	0.47	45	•	•	•	•							
HP2Max (Triple Pane Double Low E Argon IGU)	0.17	5.9	4.8		0.21	0.26	0.45	65	•	•	•	•							
Grilles (<1"), Standard and Sculptured	0.17	5.9	4.5		0.22	0.24	0.40	65	•	•	•	•							
HP3Max (Triple Pane Double Low E Argon IGU)	0.15	6.7	5.3		0.19	0.23	0.42	53	•	•	•	•							
Grilles (<1"), Standard and Sculptured	0.15	6.7	5.3		0.19	0.21	0.38	53	•	•	•	•							
WarmEdge Plus+ Spacer																			
HP (Low E Argon IGU)	0.26	3.8	3.6		0.28	0.30	0.58	61	•	•	•	•							
Grilles (<1"), Standard and Sculptured	0.26	3.8	3.6		0.28	0.28	0.52	61	•	•	•	•							
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.25	4.0	3.6		0.28	0.23	0.46	61	•	•	•	•							
Grilles (<1"), Standard and Sculptured	0.25	4.0	3.6		0.28	0.21	0.41	61	•	•	•	•							
HP2+ (Double Low E Argon IGU)	0.20	5.0	4.3		0.23	0.29	0.53	49	•	•	•	•							
Grilles (<1"), Standard and Sculptured	0.20	5.0	4.3		0.23	0.26	0.47	49	•	•	•	•							
R-5 Option																			
HP3Max (Triple Pane Double Low E Argon IGU)	0.15	6.7	5.3		0.19	0.23	0.42	53	•	•	•	•							
Grilles (<1"), Standard and Sculptured	0.15	6.7	5.3		0.19	0.21	0.38	53	•	•	•	•							



PRO Series

ATTACHMENT A

Product Type / Popular Glazing Options	U-Factor (Center of Glass)	R-value (Center of Glass)	Total Unit R-value	NFRC Certified Values					Energy Star Qualified					
				NFRC CPD Number	Total Unit U-Factor	SHGC	VT	CR	Northern	North-Central	South-Central	Southern		
960 Sliding Patio Door														
WarmEdge Spacer				PWG-M-144										
HP (Low E Argon IGU)	0.26	3.8	3.3		0.30	0.28	0.54	53	•	•	•	•		
Grilles (<1"), Standard and Sculptured	0.26	3.8	3.1		0.32	0.25	0.47	52	•	•	•	•		
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.25	4.0	3.3		0.30	0.22	0.42	53	•	•	•	•		
Grilles (<1"), Standard and Sculptured	0.25	4.0	3.1		0.32	0.19	0.37	53	•	•	•	•		
HP2+ (Double Low E Argon IGU)	0.20	5.0	3.8		0.26	0.27	0.49	44	•	•	•	•		
Grilles (<1"), Standard and Sculptured	0.20	5.0	3.7		0.27	0.24	0.43	44	•	•	•	•		
HP2Max (Triple Pane Double Low E Argon IGU)	0.17	5.9	4.2		0.24	0.24	0.42	59	•	•	•	•		
Grilles (<1"), Standard and Sculptured	0.17	5.9	3.8		0.26	0.22	0.36	59	•	•	•	•		
HP3Max (Triple Pane Double Low E Argon IGU)	0.15	6.7	4.5		0.22	0.22	0.40	52	•	•	•	•		
Grilles (<1"), Standard and Sculptured	0.15	6.7	4.3		0.23	0.19	0.35	52	•	•	•	•		
WarmEdge Plus+ Spacer														
HP (Low E Argon IGU)	0.26	3.8	3.4		0.29	0.28	0.54	57	•	•	•	•		
Grilles (<1"), Standard and Sculptured	0.26	3.8	3.2		0.31	0.25	0.47	57	•	•	•	•		
HP ^{SC} (Solar Cooling Low E Argon IGU)	0.25	4.0	3.4		0.29	0.22	0.42	57	•	•	•	•		
Grilles (<1"), Standard and Sculptured	0.25	4.0	3.2		0.31	0.19	0.37	57	•	•	•	•		
HP2+ (Double Low E Argon IGU)	0.20	5.0	3.8		0.26	0.27	0.49	47	•	•	•	•		
Grilles (<1"), Standard and Sculptured	0.20	5.0	3.7		0.27	0.24	0.43	47	•	•	•	•		
R-5 Option														
HP3Max (Triple Pane Double Low E Argon IGU)	0.15	6.7	4.5		0.22	0.22	0.40	52	•	•	•	•		
Grilles (<1"), Standard and Sculptured	0.15	6.7	4.5	0.22	0.19	0.35	58	•	•	•	•			

-Option does NOT meet ENERGY STAR zone requirements for 2011 federal energy tax credit.
 • -Option is Energy Star Qualified per zone.

NFRC (National Fenestration Rating Council)

- CPD - Certified Product Directory
- SHGC - Solar Heat Gain Coefficient
- VT - Visible Light Transmission
- CR - Condensation Resistance

- U-Factor - Rate of Heat Loss
- R-Value - Resistance to Heat Flow



Footnotes: Total unit values: Double strength glass for all windows and doors.

CONTRACTOR SERIES

REPLACEMENT WINDOWS

ATTACHMENT A

Product Type/Popular Glazing Options	Center of Glass U-Factor	Center of Glass R-Value	Total Unit R-Value	NFRC CPD Number	NFRC Certified Values				ENERGY STAR® Qualified				
					Total Unit U-Factor	SHGC	VT	CR	Northern	North-Central	South-Central	Southern	
400 Single Hung													
Warm Edge Spacer													
LE (Low-E, Air IGU)	0.3	3.33	2.86	PWG-M-125	0.35	0.29	0.55	50					
Grilles (< 1")	0.3	3.33	2.86		0.35	0.27	0.49	50					
LE ^{SC} (Solar Cooling Low-E, Air IGU)	0.3	3.33	2.94		0.34	0.23	0.43	50					
Grilles (< 1")	0.3	3.33	2.94		0.34	0.21	0.39	50					
HP (Low-E, Argon IGU)	0.25	4.00	3.23		0.31	0.29	0.55	53					
Grilles (< 1")	0.25	4.00	3.23		0.31	0.26	0.49	53					
HP ^{SC} (Solar Cooling Low-E, Argon IGU)	0.25	4.00	3.33		0.30	0.22	0.43	54					
Grilles (< 1")	0.25	4.00	3.33		0.30	0.20	0.39	54					
Warm Edge Plus Spacer (Non-Metal)													
LE (Low-E, Air IGU)	0.3	3.33	2.94		0.34	0.29	0.55	53					
Grilles (< 1")	0.3	3.33	2.94		0.34	0.27	0.49	53					
LE ^{SC} (Solar Cooling Low-E, Air IGU)	0.3	3.33	3.03		0.33	0.23	0.43	53					
Grilles (< 1")	0.3	3.33	3.03		0.33	0.21	0.39	53					
HP (Low-E, Argon IGU)	0.25	4.00	3.33		0.30	0.29	0.55	56					
Grilles (< 1")	0.25	4.00	3.33		0.30	0.26	0.49	56					
HP ^{SC} (Solar Cooling Low-E, Argon IGU)	0.25	4.00	3.45		0.29	0.22	0.43	57					
Grilles (< 1")	0.25	4.00	3.45		0.29	0.20	0.39	57					
400 Horizontal Slider													
Warm Edge Spacer													
LE (Low-E, Air IGU)	0.3	3.33	2.86		PWG-M-124	0.35	0.29	0.55	51				
Grilles (< 1")	0.3	3.33	2.86	0.35		0.27	0.49	51					
LE ^{SC} (Solar Cooling Low-E, Air IGU)	0.3	3.33	2.94	0.34		0.23	0.43	51					
Grilles (< 1")	0.3	3.33	2.94	0.34		0.21	0.39	51					
HP (Low-E, Argon IGU)	0.25	4.00	3.23	0.31		0.29	0.55	54					
Grilles (< 1")	0.25	4.00	3.23	0.31		0.26	0.49	54					
HP ^{SC} (Solar Cooling Low-E, Argon IGU)	0.25	4.00	3.33	0.30		0.22	0.43	54					
Grilles (< 1")	0.25	4.00	3.33	0.30		0.20	0.39	54					
Warm Edge Plus Spacer (Non-Metal)													
LE (Low-E, Air IGU)	0.3	3.33	2.94	0.34		0.29	0.55	54					
Grilles (< 1")	0.3	3.33	2.94	0.34		0.27	0.49	54					
LE ^{SC} (Solar Cooling Low-E, Air IGU)	0.3	3.33	3.03	0.33		0.23	0.43	54					
Grilles (< 1")	0.3	3.33	3.03	0.33		0.21	0.39	54					
HP (Low-E, Argon IGU)	0.25	4.00	3.33	0.30		0.29	0.55	57					
Grilles (< 1")	0.25	4.00	3.33	0.30		0.26	0.49	57					
HP ^{SC} (Solar Cooling Low-E, Argon IGU)	0.25	4.00	3.45	0.29		0.22	0.43	57					
Grilles (< 1")	0.25	4.00	3.45	0.29		0.20	0.39	57					
400 Fixed Window													
Warm Edge Spacer													
LE (Low-E, Air IGU)	0.3	3.33	3.03	PWG-M-123		0.33	0.33	0.62	53				
Grilles (< 1")	0.3	3.33	3.03		0.33	0.30	0.55	53					
LE ^{SC} (Solar Cooling Low-E, Air IGU)	0.3	3.33	3.13		0.32	0.25	0.48	53					
Grilles (< 1")	0.3	3.33	3.13		0.32	0.23	0.43	53					
HP (Low-E, Argon IGU)	0.25	4.00	3.57		0.28	0.32	0.62	56					
Grilles (< 1")	0.25	4.00	3.57		0.28	0.29	0.55	56					
HP ^{SC} (Solar Cooling Low-E, Argon IGU)	0.25	4.00	3.57		0.28	0.25	0.48	56					
Grilles (< 1")	0.25	4.00	3.57		0.28	0.23	0.43	56					
Warm Edge Plus Spacer (Non-Metal)													
LE (Low-E, Air IGU)	0.3	3.33	3.13		0.32	0.33	0.62	55					
Grilles (< 1")	0.3	3.33	3.13		0.32	0.30	0.55	55					
LE ^{SC} (Solar Cooling Low-E, Air IGU)	0.3	3.33	3.13		0.32	0.25	0.48	55					
Grilles (< 1")	0.3	3.33	3.13		0.32	0.23	0.43	55					
HP (Low-E, Argon IGU)	0.25	4.00	3.70		0.27	0.32	0.62	58					
Grilles (< 1")	0.25	4.00	3.70		0.27	0.29	0.55	58					
HP ^{SC} (Solar Cooling Low-E, Argon IGU)	0.25	4.00	3.70		0.27	0.25	0.48	59					
Grilles (< 1")	0.25	4.00	3.70		0.27	0.23	0.43	59					

CONTRACTOR SERIES

REPLACEMENT WINDOWS

ATTACHMENT A

Product Type/Popular Glazing Options	Center of Glass U-Factor	Center of Glass R-Value	Total Unit R-Value	NFRC CPD Number	NFRC Certified Values				ENERGY STAR® Qualified				
					Total Unit U-Factor	SHGC	VT	CR	Northern	North-Central	South-Central	Southern	
550 Awning													
Warm Edge Spacer													
LE (Low-E, Air IGU)	0.3	3.33	3.23	PWG-M-127	0.31	0.25	0.46	54		•	•	•	
Grilles (< 1")	0.3	3.33	3.13		0.32	0.23	0.42	54		•	•	•	
LE ^{SC} (Solar Cooling Low-E, Air IGU)	0.3	3.33	3.23		0.31	0.19	0.36	54		•	•	•	
Grilles (< 1")	0.3	3.33	2.86		0.35	0.18	0.33	54		•	•	•	
HP (Low-E, Argon IGU)	0.25	4.00	3.57		0.28	0.25	0.46	58	•	•	•	•	
Grilles (< 1")	0.25	4.00	3.45		0.29	0.22	0.42	58	•	•	•	•	
HP ^{SC} (Solar Cooling Low-E, Argon IGU)	0.25	4.00	3.57		0.28	0.19	0.36	58	•	•	•	•	
Grilles (< 1")	0.25	4.00	3.45		0.29	0.17	0.33	58	•	•	•	•	
Warm Edge Plus Spacer (Non-Metal)													
LE (Low-E, Air IGU)	0.3	3.33	3.23		0.31	0.25	0.46	56		•	•	•	
Grilles (< 1")	0.3	3.33	3.13		0.32	0.23	0.42	56		•	•	•	
LE ^{SC} (Solar Cooling Low-E, Air IGU)	0.3	3.33	3.33		0.30	0.19	0.36	56	•	•	•	•	
Grilles (< 1")	0.3	3.33	3.23		0.31	0.18	0.33	56		•	•	•	
HP (Low-E, Argon IGU)	0.25	4.00	3.57		0.28	0.25	0.46	60	•	•	•	•	
Grilles (< 1")	0.25	4.00	3.57		0.28	0.22	0.42	60	•	•	•	•	
HP ^{SC} (Solar Cooling Low-E, Argon IGU)	0.25	4.00	3.70		0.27	0.19	0.36	60	•	•	•	•	
Grilles (< 1")	0.25	4.00	3.57		0.28	0.17	0.33	60	•	•	•	•	
550 Casement													
Warm Edge Spacer													
LE (Low-E, Air IGU)	0.3	3.33	3.23		PWG-M-128	0.31	0.25	0.46	56		•	•	•
Grilles (< 1")	0.3	3.33	3.03	0.33		0.23	0.42	56		•	•	•	
LE ^{SC} (Solar Cooling Low-E, Air IGU)	0.3	3.33	3.23	0.31		0.19	0.36	56		•	•	•	
Grilles (< 1")	0.3	3.33	2.86	0.35		0.18	0.33	54		•	•	•	
HP (Low-E, Argon IGU)	0.25	4.00	3.57	0.28		0.25	0.46	59	•	•	•	•	
Grilles (< 1")	0.25	4.00	3.33	0.30		0.22	0.42	59	•	•	•	•	
HP ^{SC} (Solar Cooling Low-E, Argon IGU)	0.25	4.00	3.57	0.28		0.19	0.36	59	•	•	•	•	
Grilles (< 1")	0.25	4.00	3.45	0.29		0.17	0.33	59	•	•	•	•	
Warm Edge Plus Spacer (Non-Metal)													
LE (Low-E, Air IGU)	0.3	3.33	3.23	0.31		0.25	0.46	58		•	•	•	
Grilles (< 1")	0.3	3.33	3.13	0.32		0.23	0.42	58		•	•	•	
LE ^{SC} (Solar Cooling Low-E, Air IGU)	0.3	3.33	3.33	0.30		0.19	0.36	58	•	•	•	•	
Grilles (< 1")	0.3	3.33	3.13	0.32		0.18	0.33	58		•	•	•	
HP (Low-E, Argon IGU)	0.25	4.00	3.57	0.28		0.25	0.46	61	•	•	•	•	
Grilles (< 1")	0.25	4.00	3.45	0.29		0.22	0.42	61	•	•	•	•	
HP ^{SC} (Solar Cooling Low-E, Argon IGU)	0.25	4.00	3.70	0.27		0.19	0.36	61	•	•	•	•	
Grilles (< 1")	0.25	4.00	3.57	0.28		0.17	0.33	61	•	•	•	•	
550 Fixed Window													
Warm Edge Spacer													
LE (Low-E, Air IGU)	0.3	3.33	3.13	PWG-M-129		0.32	0.31	0.59	54		•	•	•
Grilles (< 1")	0.3	3.33	3.03		0.33	0.28	0.53	54		•	•	•	
LE ^{SC} (Solar Cooling Low-E, Air IGU)	0.3	3.33	3.23		0.31	0.24	0.47	55		•	•	•	
Grilles (< 1")	0.3	3.33	2.70		0.37	0.22	0.42	55		•	•	•	
HP (Low-E, Argon IGU)	0.25	4.00	3.57		0.28	0.31	0.59	58	•	•	•	•	
Grilles (< 1")	0.25	4.00	3.45		0.29	0.28	0.53	58	•	•	•	•	
HP ^{SC} (Solar Cooling Low-E, Argon IGU)	0.25	4.00	3.70		0.27	0.24	0.47	58	•	•	•	•	
Grilles (< 1")	0.25	4.00	3.45		0.29	0.22	0.42	58	•	•	•	•	
Warm Edge Plus Spacer (Non-Metal)													
LE (Low-E, Air IGU)	0.3	3.33	3.23		0.31	0.31	0.59	56		•	•	•	
Grilles (< 1")	0.3	3.33	3.03		0.33	0.28	0.53	56		•	•	•	
LE ^{SC} (Solar Cooling Low-E, Air IGU)	0.3	3.33	3.23		0.31	0.24	0.47	57		•	•	•	
Grilles (< 1")	0.3	3.33	3.03		0.33	0.22	0.42	57		•	•	•	
HP (Low-E, Argon IGU)	0.25	4.00	3.70		0.27	0.31	0.59	60	•	•	•	•	
Grilles (< 1")	0.25	4.00	3.45		0.29	0.28	0.53	60	•	•	•	•	
HP ^{SC} (Solar Cooling Low-E, Argon IGU)	0.25	4.00	3.70		0.27	0.24	0.47	60	•	•	•	•	
Grilles (< 1")	0.25	4.00	3.57		0.28	0.22	0.42	60	•	•	•	•	

CONTRACTOR SERIES

REPLACEMENT WINDOWS

ATTACHMENT A

Product Type/Popular Glazing Options	Center of Glass U-Factor	Center of Glass R-Value	Total Unit R-Value	NFRC CPD Number	NFRC Certified Values				ENERGY STAR® Qualified				
					Total Unit U-Factor	SHGC	VT	CR	Northern	North-Central	South-Central	Southern	
460 Sliding Door				PWG-M-126									
Warm Edge Spacer													
HP (Low-E, Argon IGU)	0.25	4.00	3.23		0.31	0.29	0.54	54	•	•	•	•	
HP ^{SC} (Solar Cooling Low-E, Argon IGU)	0.25	4.00	3.23		0.31	0.22	0.42	54	•	•	•	•	
Warm Edge Plus Spacer (Non-Metal)													
HP (Low-E, Argon IGU)	0.25	4.00	3.23		0.31	0.29	0.54	55	•	•	•	•	
HP ^{SC} (Solar Cooling Low-E, Argon IGU)	0.25	4.00	3.33		0.30	0.22	0.42	56	•	•	•	•	

NFRC (National Fenestration Rating Council)

- CPD - Certified Product Directory
- SHGC - Solar Heat Gain Coefficient
- VT - Visible Light Transmission
- CR - Condensation Resistance

U-Factor - Rate of Heat Loss
R-Value - Resistance to Heat Flow

Notes:

Values represent 3.0mm (Double Strength) glass
Values are subject to change as unit size changes

