



Product Selection Guide

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Document Navigation Tips:

Items listed in the table of contents above are active links that will take you to the corresponding page.
 The Pella logo on each page is a link back to this table of contents.
 Bookmarks are also included in this PDF document and are available as an additional navigation option.

Supporting documents for this product:

Test Reports:

https://media.pella.com/professional/adm/CertificationReports/Test_Reports_IMP.pdf?utm_source=pdfdoc

CSI Specs (readable using Microsoft Word or other text editing application):

https://media.pella.com/professional/adm/Fiberglass-CSI_Specs/08572_SS.rtf?utm_source=pdfdoc

AIA Masterspec (readable using Microsoft Word or other text editing application):

https://media.pella.com/professional/adm/Fiberglass-CSI_Specs/085413_fl.doc?utm_source=pdfdoc

Detailed Product Description (readable using Microsoft Word or other text editing application):

https://media.pella.com/professional/adm/Fiberglass/F2-SS.rtf?utm_source=pdfdoc

CAD cross sections (requires appropriate CAD software to read and use):

https://media.pella.com/professional/adm/Fiberglass/IMP-RS-Detail_D.dwg?utm_source=pdfdoc

3D & BIM (requires appropriate software to read and use):

https://media.pella.com/professional/adm/RevitFiles/Imp-Revit/Window-Direct_Set-Pella-Impervia-Shapes.zip?utm_source=pdfdoc

Combination Recommendations:

https://media.pella.com/professional/adm/Fiberglass/F2_Combinations.pdf?utm_source=pdfdoc

Installation Details:

https://media.pella.com/professional/adm/Fiberglass/Pella-Impervia_InstallationDetails.pdf?utm_source=pdfdoc

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Impervia® Fixed Shapes

Size and Performance Data

	Block Frame
Sizes	
Half and Quarter Circle	●
Arch Head and Partial Arch Head	●
Springline	●
Trapezoid	●
Pentagon	●
Left and Right Triangle	●
Isosceles Triangle	●
Performance	
Meets or Exceeds AAMA /WDMA Ratings	FW-CW30 Hallmark Certified
Air Infiltration (cfm/ft ² of frame @ 1.57 psf wind pressure)	0.05
Water Resistance	4.5 psf
Design Pressure	30 psf
Other Performance Criteria	
Forced Entry Resistance Level (Minimum Security Grade) ¹	40

Sound Transmission Class and Outdoor-Indoor Transmission Class						
Product	Frame Size Tested ²	Glazing System			STC Rating	OITC Rating
		Overall Glazing Thickness	Exterior Glass Thickness	Interior Glass Thickness		
Special shapes	47-1/2" x 47-1/2"	1"	2.5mm	2.5mm	27	21

(1) The higher the level, the greater the product's ability to resist forced entry.

ASTM E 1425 defines standard sizes for acoustical testing. Ratings achieved at that size are representative of all sizes of the same configuration.



	Block Frame
Glazing	
Glazing Type	
Dual-pane Insulating Glass	S
Insulated Glass Options / Low-E Types	
Clear Insulating Glass (no Low-E coating)	S
Advanced Low-E Insulating Glass	O
SunDefense™ Low-E Insulating Glass	O
SunDefense+ Low-E Insulating Glass	O
AdvancedComfort Low-E Insulating Glass	O
NaturalSun Low-E Insulating Glass	O
NaturalSun+ Low-E Insulating Glass	O
Additional Glass Options	
Annealed Glass	S
Tempered Glass	O
Noise reduction glass (3/5mm, 4/6mm combinations)	O
Noise reduction laminated glass (non-impact)	O
Tinted glass (Bronze, Gray, Green) Advanced Low-E	O
Obscure Glass ¹	O
Gas Fill / High Altitude	
Argon	S
High Altitude	O
High Altitude with Argon	O
Exterior / Interior Factory Pre-finish Colors	
Powder-Coat White	S
Powder-Coat Brown, Black, Tan or Morning Sky Gray	O
Powder-Coat Dual-color (Brown, Black, Tan or Morning Sky Gray Exterior with White interior)	O
Grilles	
Grilles-Between-the-Glass	
Traditional, Starburst ² , Sunburst ²	O

S = Standard; O = Optional

(1) Contact your local Pella sales representative for current offering.

(2) Select shapes only.



Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values ¹				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown							
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ²			
										Zone				ER	Zone		
Fixed											N	NC	SC	S	CA		
1"	Clear IG	PEL-N-127-02971-00005	3	3	air	0.47	0.69	0.72	48								
	with grilles-between-the-glass	PEL-N-127-02972-00005				0.47	0.62	0.65	48								
1"	Clear IG	PEL-N-127-02986-00001	5	5	air	0.46	0.66	0.71	45								
	with grilles-between-the-glass	PEL-N-127-02987-00001				0.46	0.59	0.64	45								
1"	Advanced Low-E IG	PEL-N-127-03145-00005	3	3	argon	0.28	0.33	0.62	60								
	with grilles-between-the-glass	PEL-N-127-03146-00005				0.28	0.30	0.55	60								
1"	Advanced Low-E IG	PEL-N-127-03160-00001	5	5	argon	0.27	0.32	0.60	61								
	with grilles-between-the-glass	PEL-N-127-03161-00001				0.27	0.29	0.54	61								
1"	SunDefense™ IG	PEL-N-127-03223-00005	3	3	argon	0.27	0.24	0.57	60								
	with grilles-between-the-glass	PEL-N-127-03224-00005				0.27	0.22	0.51	60			SC	S				
1"	SunDefense IG	PEL-N-127-03238-00001	5	5	argon	0.27	0.24	0.56	61								
	with grilles-between-the-glass	PEL-N-127-03239-00001				0.27	0.22	0.50	61			SC	S				
1"	SunDefense+ IG	PEL-N-127-03909-00001	3	3	argon	0.23	0.24	0.56	50			NC					
	with grilles-between-the-glass	PEL-N-127-03910-00001				0.23	0.22	0.50	50			NC	SC	S			
1"	SunDefense+ IG	PEL-N-127-03917-00001	5	5	argon	0.22	0.24	0.55	49	N	NC						
	with grilles-between-the-glass	PEL-N-127-03918-00001				0.22	0.21	0.49	49	N	NC	SC	S				
1"	AdvancedComfort Low-E IG	PEL-N-127-03885-00001	3	3	argon	0.23	0.32	0.60	49			NC					
	with grilles-between-the-glass	PEL-N-127-03886-00001				0.23	0.29	0.54	49			NC					
1"	AdvancedComfort Low-E IG	PEL-N-127-03893-00001	5	5	argon	0.23	0.31	0.59	48			NC					
	with grilles-between-the-glass	PEL-N-127-03894-00001				0.23	0.28	0.53	48			NC					
1"	NaturalSun Low-E IG	PEL-N-127-03073-00005	3	3	argon	0.29	0.61	0.70	59							39	CA
	with grilles-between-the-glass	PEL-N-127-03074-00005				0.29	0.55	0.63	59							36	CA
1"	NaturalSun Low-E IG	PEL-N-127-03085-00001	5	5	argon	0.28	0.58	0.68	60							39	CA
	with grilles-between-the-glass	PEL-N-127-03086-00001				0.28	0.53	0.61	60							36	CA
1"	NaturalSun+ Low-E IG	PEL-N-127-03933-00001	3	3	argon	0.24	0.55	0.68	48	N						42	CA
	with grilles-between-the-glass	PEL-N-127-03934-00001				0.24	0.50	0.61	48	N						39	CA
1"	NaturalSun+ Low-E IG	PEL-N-127-03941-00001	5	5	argon	0.23	0.53	0.67	47	N						42	CA
	with grilles-between-the-glass	PEL-N-127-03942-00001				0.23	0.48	0.60	47	N						39	CA
Fixed – Foam Insulation																	
1"	Advanced Low-E IG	PEL-N-127-03601-00005	3	3	argon	0.27	0.33	0.62	60								
	with grilles-between-the-glass	PEL-N-127-03602-00005				0.27	0.30	0.55	60								
1"	Advanced Low-E IG	PEL-N-127-03616-00001	5	5	argon	0.27	0.32	0.60	61								
	with grilles-between-the-glass	PEL-N-127-03617-00001				0.27	0.29	0.54	61								
1"	SunDefense IG	PEL-N-127-03679-00005	3	3	argon	0.27	0.24	0.57	60								
	with grilles-between-the-glass	PEL-N-127-03680-00005				0.27	0.22	0.51	60			SC	S				
1"	SunDefense IG	PEL-N-127-03694-00001	5	5	argon	0.26	0.24	0.56	62								
	with grilles-between-the-glass	PEL-N-127-03695-00001				0.26	0.22	0.50	62			SC	S				
1"	SunDefense+ IG	PEL-N-127-04021-00001	3	3	argon	0.22	0.24	0.56	50	N	NC						
	with grilles-between-the-glass	PEL-N-127-04022-00001				0.22	0.22	0.50	50	N	NC	SC	S				
1"	SunDefense+ IG	PEL-N-127-04029-00001	5	5	argon	0.22	0.24	0.55	49	N	NC						
	with grilles-between-the-glass	PEL-N-127-04030-00001				0.22	0.21	0.49	49	N	NC	SC	S				
1"	AdvancedComfort Low-E IG	PEL-N-127-03997-00001	3	3	argon	0.22	0.32	0.60	50	N	NC						
	with grilles-between-the-glass	PEL-N-127-03998-00001				0.22	0.29	0.54	50	N	NC						
1"	AdvancedComfort Low-E IG	PEL-N-127-04005-00001	5	5	argon	0.22	0.31	0.59	49	N	NC						
	with grilles-between-the-glass	PEL-N-127-04006-00001				0.22	0.28	0.53	49	N	NC						
1"	NaturalSun Low-E IG	PEL-N-127-03529-00005	3	3	argon	0.28	0.61	0.70	60							40	CA
	with grilles-between-the-glass	PEL-N-127-03530-00005				0.28	0.55	0.63	60							37	CA
1"	NaturalSun Low-E IG	PEL-N-127-03541-00001	5	5	argon	0.28	0.58	0.68	61							39	CA
	with grilles-between-the-glass	PEL-N-127-03542-00001				0.28	0.53	0.61	61							36	CA
1"	NaturalSun+ Low-E IG	PEL-N-127-04045-00001	3	3	argon	0.23	0.55	0.68	49	N						43	CA
	with grilles-between-the-glass	PEL-N-127-04046-00001				0.23	0.50	0.61	49	N						40	CA
1"	NaturalSun+ Low-E IG	PEL-N-127-04053-00001	5	5	argon	0.23	0.53	0.67	48	N						42	CA
	with grilles-between-the-glass	PEL-N-127-04054-00001				0.23	0.48	0.60	48	N						39	CA

(1) Glazing performance values are calculated based on NFRC 100, NFRC 200 and NFRC 500. ENERGY STAR® values are updated to 2023 (version 7) criteria.

(2) The values shown are based on Canada's updated ENERGY STAR® 2020 initiative.

For center-glass values, see the Product Performance section.

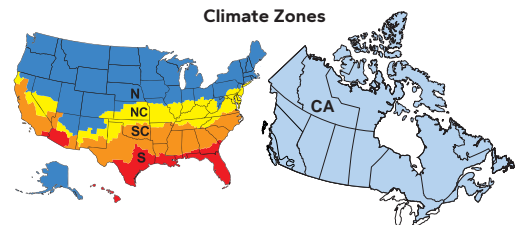
Visit www.energystar.gov for Energy Star guidelines.



Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values ₁				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown						
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ₂		
										Zone				ER	Zone	
Fixed – High Altitude Glazing										N	NC	SC	S	CA		
1"	(HA) Advanced Low-E IG	PEL-N-127-03103-00005	3	3	air	0.32	0.33	0.62	58							
	with grilles-between-the-glass	PEL-N-127-03104-00005				0.32	0.30	0.55	58							
1"	(HA) Advanced Low-E IG	PEL-N-127-03118-00001	5	5	air	0.31	0.32	0.60	57							
	with grilles-between-the-glass	PEL-N-127-03119-00001				0.31	0.29	0.54	57							
1"	(HA) SunDefense IG	PEL-N-127-03187-00005	3	3	air	0.32	0.24	0.57	59							
	with grilles-between-the-glass	PEL-N-127-03188-00005				0.32	0.22	0.51	59							S
1"	(HA) SunDefense IG	PEL-N-127-03202-00001	5	5	air	0.31	0.24	0.56	58							
	with grilles-between-the-glass	PEL-N-127-03203-00001				0.31	0.22	0.50	58							S
1"	(HA) SunDefense+ IG	PEL-N-127-03907-00001	3	3	air	0.25	0.24	0.56	46		NC					
	with grilles-between-the-glass	PEL-N-127-03908-00001				0.25	0.22	0.50	46		NC	SC	S			
1"	(HA) SunDefense+ IG	PEL-N-127-03915-00001	5	5	air	0.25	0.24	0.55	45		NC					
	with grilles-between-the-glass	PEL-N-127-03916-00001				0.25	0.22	0.49	45		NC	SC	S			
1"	(HA) AdvancedComfort Low-E IG	PEL-N-127-03883-00001	3	3	air	0.26	0.32	0.60	46							
	with grilles-between-the-glass	PEL-N-127-03884-00001				0.26	0.29	0.54	46							
1"	(HA) AdvancedComfort Low-E IG	PEL-N-127-03891-00001	5	5	air	0.25	0.31	0.59	45		NC					
	with grilles-between-the-glass	PEL-N-127-03892-00001				0.25	0.28	0.53	45		NC					
1"	(HA) NaturalSun Low-E IG	PEL-N-127-03043-00005	3	3	air	0.33	0.61	0.70	58						34	CA
	with grilles-between-the-glass	PEL-N-127-03044-00005				0.33	0.55	0.63	58							
1"	(HA) NaturalSun Low-E IG	PEL-N-127-03055-00001	5	5	air	0.32	0.58	0.68	57						34	CA
	with grilles-between-the-glass	PEL-N-127-03056-00001				0.32	0.53	0.61	57							
1"	(HA) NaturalSun+ Low-E IG	PEL-N-127-03931-00001	3	3	air	0.26	0.55	0.68	45		N				39	CA
	with grilles-between-the-glass	PEL-N-127-03932-00001				0.26	0.50	0.61	45		N				36	CA
1"	(HA) NaturalSun+ Low-E IG	PEL-N-127-03939-00001	5	5	air	0.26	0.53	0.67	44		N				38	CA
	with grilles-between-the-glass	PEL-N-127-03940-00001				0.26	0.48	0.60	44		N				35	CA
Fixed – High Altitude Glazing and Foam Insulation																
1"	(HA) Advanced Low-E IG	PEL-N-127-03559-00005	3	3	air	0.31	0.33	0.62	59							
	with grilles-between-the-glass	PEL-N-127-03560-00005				0.31	0.30	0.55	59							
1"	(HA) Advanced Low-E IG	PEL-N-127-03574-00001	5	5	air	0.31	0.32	0.60	58							
	with grilles-between-the-glass	PEL-N-127-03575-00001				0.31	0.29	0.54	58							
1"	(HA) SunDefense IG	PEL-N-127-03643-00005	3	3	air	0.31	0.24	0.57	59							
	with grilles-between-the-glass	PEL-N-127-03644-00005				0.31	0.22	0.51	59							S
1"	(HA) SunDefense IG	PEL-N-127-03658-00001	5	5	air	0.30	0.24	0.56	58							
	with grilles-between-the-glass	PEL-N-127-03659-00001				0.30	0.22	0.50	58							S
1"	(HA) SunDefense+ IG	PEL-N-127-04019-00001	3	3	air	0.25	0.24	0.56	46		NC					
	with grilles-between-the-glass	PEL-N-127-04020-00001				0.25	0.22	0.50	46		NC	SC	S			
1"	(HA) SunDefense+ IG	PEL-N-127-04027-00001	5	5	air	0.25	0.24	0.55	46		NC					
	with grilles-between-the-glass	PEL-N-127-04028-00001				0.25	0.22	0.49	46		NC	SC	S			
1"	(HA) AdvancedComfort Low-E IG	PEL-N-127-03995-00001	3	3	air	0.25	0.32	0.60	46		NC					
	with grilles-between-the-glass	PEL-N-127-03996-00001				0.25	0.29	0.54	46		NC					
1"	(HA) AdvancedComfort Low-E IG	PEL-N-127-04003-00001	5	5	air	0.25	0.31	0.59	45		NC					
	with grilles-between-the-glass	PEL-N-127-04004-00001				0.25	0.28	0.53	45		NC					
1"	(HA) NaturalSun Low-E IG	PEL-N-127-03499-00005	3	3	air	0.32	0.61	0.70	58						35	CA
	with grilles-between-the-glass	PEL-N-127-03500-00005				0.32	0.55	0.63	58							
1"	(HA) NaturalSun Low-E IG	PEL-N-127-03511-00001	5	5	air	0.32	0.58	0.68	57						34	CA
	with grilles-between-the-glass	PEL-N-127-03512-00001				0.32	0.53	0.61	57							
1"	(HA) NaturalSun+ Low-E IG	PEL-N-127-04043-00001	3	3	air	0.26	0.55	0.68	45		N				39	CA
	with grilles-between-the-glass	PEL-N-127-04044-00001				0.26	0.50	0.61	45		N				36	CA
1"	(HA) NaturalSun+ Low-E IG	PEL-N-127-04051-00001	5	5	air	0.25	0.53	0.67	44		N				40	CA
	with grilles-between-the-glass	PEL-N-127-04052-00001				0.25	0.48	0.60	44		N				37	CA

R-Value = 1/U-Factor, SHGC = Solar Heat Gain Coefficient
 VLT % = Visible Light Transmission, CR = Condensation Resistance
 ER = Canadian Energy Rating

(1) Glazing performance values are calculated based on NFRC 100, NFRC 200 and NFRC 500. ENERGY STAR® values are updated to 2023 (version 7) criteria.
 (2) The values shown are based on Canada's updated ENERGY STAR® 2020 initiative. For center-glass values, see the Product Performance section. Visit www.energystar.gov for Energy Star guidelines.





Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values ¹				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown						
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ₂		
										Zone				ER	Zone	
Fixed – 3mm/5mm Glass										N	NC	SC	S	CA		
1"	Clear IG	PEL-N-127-02974-00001	3	5	air	0.47	0.68	0.72	46							
	with grilles-between-the-glass	PEL-N-127-02975-00001				0.47	0.61	0.64	46							
1"	Advanced Low-E IG	PEL-N-127-03148-00001	3	5	argon	0.28	0.32	0.61	61							
	with grilles-between-the-glass	PEL-N-127-03149-00001				0.28	0.29	0.55	61							
1"	SunDefense™ IG	PEL-N-127-03226-00001	3	5	argon	0.27	0.24	0.57	62							
	with grilles-between-the-glass	PEL-N-127-03227-00001				0.27	0.22	0.51	62			SC	S			
1"	SunDefense+ IG	PEL-N-127-03985-00001	3	5	argon	0.22	0.24	0.55	49	N	NC					
	with grilles-between-the-glass	PEL-N-127-03986-00001				0.22	0.21	0.50	49	N	NC	SC	S			
1"	AdvancedComfort Low-E IG	PEL-N-127-03981-00001	3	5	argon	0.23	0.32	0.60	48		NC					
	with grilles-between-the-glass	PEL-N-127-03982-00001				0.23	0.29	0.54	48		NC					
1"	NaturalSun Low-E IG	PEL-N-127-03076-00001	3	5	argon	0.29	0.61	0.69	61						39	CA
	with grilles-between-the-glass	PEL-N-127-03077-00001				0.29	0.55	0.62	61						36	CA
1"	NaturalSun+ Low-E IG	PEL-N-127-03989-00001	3	5	argon	0.24	0.55	0.67	47	N					42	CA
	with grilles-between-the-glass	PEL-N-127-03990-00001				0.24	0.50	0.61	47	N					39	CA
Fixed – 3mm/5mm Glass with Foam Insulation																
1"	Advanced Low-E IG	PEL-N-127-03604-00001	3	5	argon	0.27	0.32	0.61	62							
	with grilles-between-the-glass	PEL-N-127-03605-00001				0.27	0.29	0.55	62							
1"	SunDefense™ IG	PEL-N-127-03682-00001	3	5	argon	0.26	0.24	0.57	63							
	with grilles-between-the-glass	PEL-N-127-03683-00001				0.26	0.22	0.51	63			SC	S			
1"	SunDefense+ IG	PEL-N-127-04097-00001	3	5	argon	0.22	0.24	0.55	49	N	NC					
	with grilles-between-the-glass	PEL-N-127-04098-00001				0.22	0.21	0.50	49	N	NC	SC	S			
1"	AdvancedComfort Low-E IG	PEL-N-127-04093-00001	3	5	argon	0.22	0.32	0.60	49	N	NC					
	with grilles-between-the-glass	PEL-N-127-04094-00001				0.22	0.29	0.54	49	N	NC					
1"	NaturalSun Low-E IG	PEL-N-127-03532-00001	3	5	argon	0.28	0.61	0.69	62						40	CA
	with grilles-between-the-glass	PEL-N-127-03533-00001				0.28	0.55	0.62	62						37	CA
1"	NaturalSun+ Low-E IG	PEL-N-127-04101-00001	3	5	argon	0.23	0.55	0.67	48	N					43	CA
	with grilles-between-the-glass	PEL-N-127-04102-00001				0.23	0.50	0.61	48	N					40	CA
Fixed – 3mm/5mm Glass High Altitude Glazing																
1"	(HA) Advanced Low-E IG	PEL-N-127-03106-00001	3	5	air	0.32	0.33	0.61	58							
	with grilles-between-the-glass	PEL-N-127-03107-00001				0.32	0.30	0.55	58							
1"	(HA) SunDefense IG	PEL-N-127-03190-00001	3	5	air	0.31	0.24	0.57	58							
	with grilles-between-the-glass	PEL-N-127-03191-00001				0.31	0.22	0.51	58				S			
1"	(HA) SunDefense+ IG	PEL-N-127-03983-00001	3	5	air	0.25	0.24	0.55	45		NC					
	with grilles-between-the-glass	PEL-N-127-03984-00001				0.25	0.22	0.50	45		NC	SC	S			
1"	(HA) AdvancedComfort Low-E IG	PEL-N-127-03979-00001	3	5	air	0.25	0.32	0.60	45		NC					
	with grilles-between-the-glass	PEL-N-127-03980-00001				0.25	0.29	0.54	45		NC					
1"	(HA) NaturalSun Low-E IG	PEL-N-127-03046-00001	3	5	air	0.33	0.60	0.69	57						34	CA
	with grilles-between-the-glass	PEL-N-127-03047-00001				0.33	0.55	0.62	57							
1"	(HA) NaturalSun+ Low-E IG	PEL-N-127-03987-00001	3	5	air	0.26	0.55	0.67	44	N					39	CA
	with grilles-between-the-glass	PEL-N-127-03988-00001				0.26	0.49	0.61	44	N					36	CA
Fixed – 3mm/5mm Glass High Altitude Glazing – with Foam Insulation																
1"	(HA) Advanced Low-E IG	PEL-N-127-03562-00001	3	5	air	0.31	0.33	0.61	58							
	with grilles-between-the-glass	PEL-N-127-03563-00001				0.31	0.30	0.55	58							
1"	(HA) SunDefense IG	PEL-N-127-03646-00001	3	5	air	0.31	0.24	0.57	59							
	with grilles-between-the-glass	PEL-N-127-03647-00001				0.31	0.22	0.51	59				S			
1"	(HA) SunDefense+ IG	PEL-N-127-04095-00001	3	5	air	0.25	0.24	0.55	46		NC					
	with grilles-between-the-glass	PEL-N-127-04096-00001				0.25	0.22	0.50	46		NC	SC	S			
1"	(HA) AdvancedComfort Low-E IG	PEL-N-127-04091-00001	3	5	air	0.25	0.32	0.60	45		NC					
	with grilles-between-the-glass	PEL-N-127-04092-00001				0.25	0.29	0.54	45		NC					
1"	(HA) NaturalSun Low-E IG	PEL-N-127-03502-00001	3	5	air	0.32	0.60	0.69	58						35	CA
	with grilles-between-the-glass	PEL-N-127-03503-00001				0.32	0.55	0.62	58							
1"	(HA) NaturalSun+ Low-E IG	PEL-N-127-04099-00001	3	5	air	0.26	0.55	0.67	45	N					39	CA
	with grilles-between-the-glass	PEL-N-127-04100-00001				0.26	0.49	0.61	45	N					36	CA

(1) Glazing performance values are calculated based on NFRC 100, NFRC 200 and NFRC 500. ENERGY STAR® values are updated to 2023 (version 7) criteria.

(2) The values shown are based on Canada's updated ENERGY STAR® 2020 initiative.

For center-glass values, see the Product Performance section.

Visit www.energystar.gov for Energy Star guidelines.



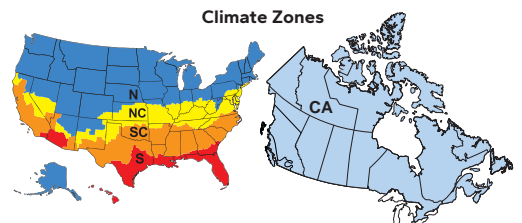
Impervia® Fixed Shapes

Glazing Performance – Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values ¹				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown									
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.				Canada ²					
										Zone				ER	Zone				
										N	NC	SC	S	CA					
Fixed – Tinted Glazing																			
11/16"	Bronze Advanced Low-E IG	PEL-N-127-03373-00001	5	3	argon	0.28	0.28	0.40	62										
	with grilles-between-the-glass	PEL-N-127-03374-00001				0.28	0.26	0.36	62										
11/16"	Gray Advanced Low-E IG	PEL-N-127-03379-00001	5	3	argon	0.28	0.26	0.34	62										
	with grilles-between-the-glass	PEL-N-127-03380-00001				0.28	0.24	0.31	62										
11/16"	Green Advanced Low-E IG	PEL-N-127-03385-00001	5	3	argon	0.28	0.31	0.53	62										
	with grilles-between-the-glass	PEL-N-127-03386-00001				0.28	0.28	0.47	62										
Fixed – Tinted Glazing with Foam Insulation																			
11/16"	Bronze Advanced Low-E IG	PEL-N-127-03829-00001	5	3	argon	0.27	0.28	0.40	63										
	with grilles-between-the-glass	PEL-N-127-03830-00001				0.27	0.26	0.36	63										
11/16"	Gray Advanced Low-E IG	PEL-N-127-03835-00001	5	3	argon	0.27	0.26	0.34	63										
	with grilles-between-the-glass	PEL-N-127-03836-00001				0.27	0.24	0.31	63										
11/16"	Green Advanced Low-E IG	PEL-N-127-03841-00001	5	3	argon	0.27	0.31	0.53	63										
	with grilles-between-the-glass	PEL-N-127-03842-00001				0.27	0.28	0.47	63										
Fixed – High Altitude Tinted Glazing																			
11/16"	Bronze Advanced Low-E IG	PEL-N-127-03319-00001	5	3	air	0.32	0.29	0.40	59										
	with grilles-between-the-glass	PEL-N-127-03320-00001				0.32	0.26	0.36	59										
11/16"	Gray Advanced Low-E IG	PEL-N-127-03325-00001	5	3	air	0.32	0.27	0.34	59										
	with grilles-between-the-glass	PEL-N-127-03326-00001				0.32	0.24	0.31	59										
11/16"	Green Advanced Low-E IG	PEL-N-127-03331-00001	5	3	air	0.32	0.32	0.53	59										
	with grilles-between-the-glass	PEL-N-127-03332-00001				0.32	0.29	0.47	59										
Fixed – High Altitude Tinted Glazing with Foam Insulation																			
11/16"	Bronze Advanced Low-E IG	PEL-N-127-03775-00001	5	3	air	0.31	0.29	0.40	59										
	with grilles-between-the-glass	PEL-N-127-03776-00001				0.31	0.26	0.36	59										
11/16"	Gray Advanced Low-E IG	PEL-N-127-03781-00001	5	3	air	0.31	0.27	0.34	59										
	with grilles-between-the-glass	PEL-N-127-03782-00001				0.31	0.24	0.31	59										
11/16"	Green Advanced Low-E IG	PEL-N-127-03787-00001	5	3	air	0.31	0.32	0.53	59										
	with grilles-between-the-glass	PEL-N-127-03788-00001				0.31	0.29	0.47	59										

R-Value = 1/U-Factor
 SHGC = Solar Heat Gain Coefficient
 VLT % = Visible Light Transmission
 CR = Condensation Resistance
 ER = Canadian Energy Rating

(1) Glazing performance values are calculated based on NFRC 100, NFRC 200 and NFRC 500. ENERGY STAR® values are updated to 2023 (version 7) criteria.
 (2) The values shown are based on Canada's updated ENERGY STAR® 2020 initiative. For center-glass values, see the Product Performance section. Visit www.energystar.gov for Energy Star guidelines.





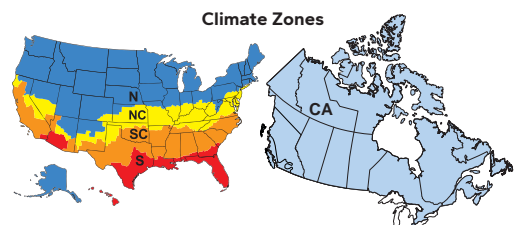
Impervia® Fixed Shapes

Glazing Performance – Total Unit

Glazing Thickness	Type of Glazing	NFRC Certified Product #	Glass (mm)		Gap Fill	Performance Values ¹				Shaded Areas Meet ENERGY STAR® Performance Criteria in Zones Shown					
			Ext.	Int.		U-Factor	SHGC	VLT	CR	U. S.		Canada ²			
										Zone	ER	Zone			
Fixed – Laminated Glazing											N	NC	SC	S	CA
11/16"	Advanced Low-E IG	PEL-N-127-03157-00001	4	7	argon	0.27	0.32	0.60	61						
	with grilles-between-the-glass	PEL-N-127-03158-00001				0.27	0.29	0.54	61						
11/16"	SunDefense™ IG	PEL-N-127-03235-00001	4	7	argon	0.26	0.24	0.56	61						
	with grilles-between-the-glass	PEL-N-127-03236-00001				0.26	0.22	0.50	61			SC	S		
Fixed – Laminated Glazing with Foam Insulation															
11/16"	Advanced Low-E IG	PEL-N-127-03613-00001	4	7	argon	0.26	0.32	0.60	62						
	with grilles-between-the-glass	PEL-N-127-03614-00001				0.26	0.29	0.54	62						
11/16"	SunDefense™ IG	PEL-N-127-03691-00001	4	7	argon	0.26	0.24	0.56	62						
	with grilles-between-the-glass	PEL-N-127-03692-00001				0.26	0.22	0.50	62			SC	S		
Fixed – Laminated High Altitude Glazing															
11/16"	Advanced Low-E IG	PEL-N-127-03115-00001	4	7	air	0.31	0.32	0.60	57						
	with grilles-between-the-glass	PEL-N-127-03116-00001				0.31	0.29	0.54	57						
11/16"	SunDefense IG	PEL-N-127-03199-00001	4	7	air	0.30	0.24	0.56	58						
	with grilles-between-the-glass	PEL-N-127-03200-00001				0.30	0.22	0.50	58				S		
Fixed – Laminated High Altitude Glazing with Foam Insulation															
11/16"	Advanced Low-E IG	PEL-N-127-03571-00001	4	7	air	0.30	0.32	0.60	58						
	with grilles-between-the-glass	PEL-N-127-03572-00001				0.30	0.29	0.54	58						
11/16"	SunDefense IG	PEL-N-127-03655-00001	4	7	air	0.30	0.24	0.56	58						
	with grilles-between-the-glass	PEL-N-127-03656-00001				0.30	0.22	0.50	58				S		

R-Value = 1/U-Factor
 SHGC = Solar Heat Gain Coefficient
 VLT % = Visible Light Transmission
 CR = Condensation Resistance
 ER = Canadian Energy Rating

(1) Glazing performance values are calculated based on NFRC 100, NFRC 200 and NFRC 500. ENERGY STAR® values are updated to 2023 (version 7) criteria.
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Combinations are a great way to create visual interest in any project. A combination is an assembly formed by two or more separate windows or doors whose frames are mullioned together by a combination or reinforcing mullion.

Pella window combinations are available in an endless variety of arrangements. See the Combination section for requirements and limitations.

Contact your local Pella sales representative for more information.

Fixed Window Combinations

Single with Half Circle	2-Wide with Half Circle	Single with Quarter Circle	Single with Arch Head	2-Wide with Arch Head

Double- or Single-Hung Combinations

Single with Half Circle	2-Wide with Half Circle	Single with Arch Head	2-Wide with Arch Head	Springline with Double-Hung / Single-Hung

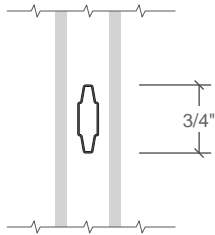
Sliding Window Combinations

Single with Half Circle	Single with Arch Head	Single with Partial Arch Head



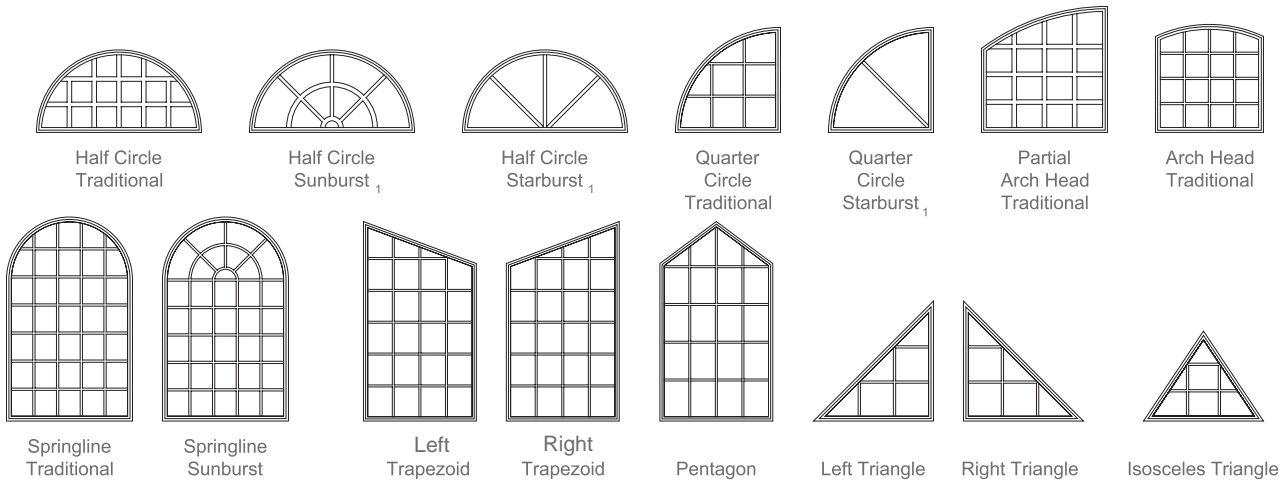
Grille Profiles

Grilles-Between-the-Glass

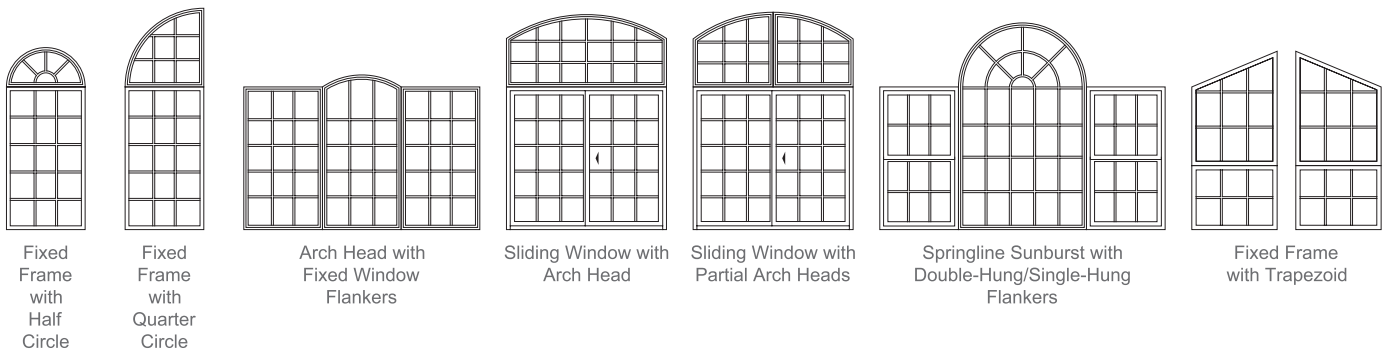


Grille Patterns

Grilles-Between-the-Glass



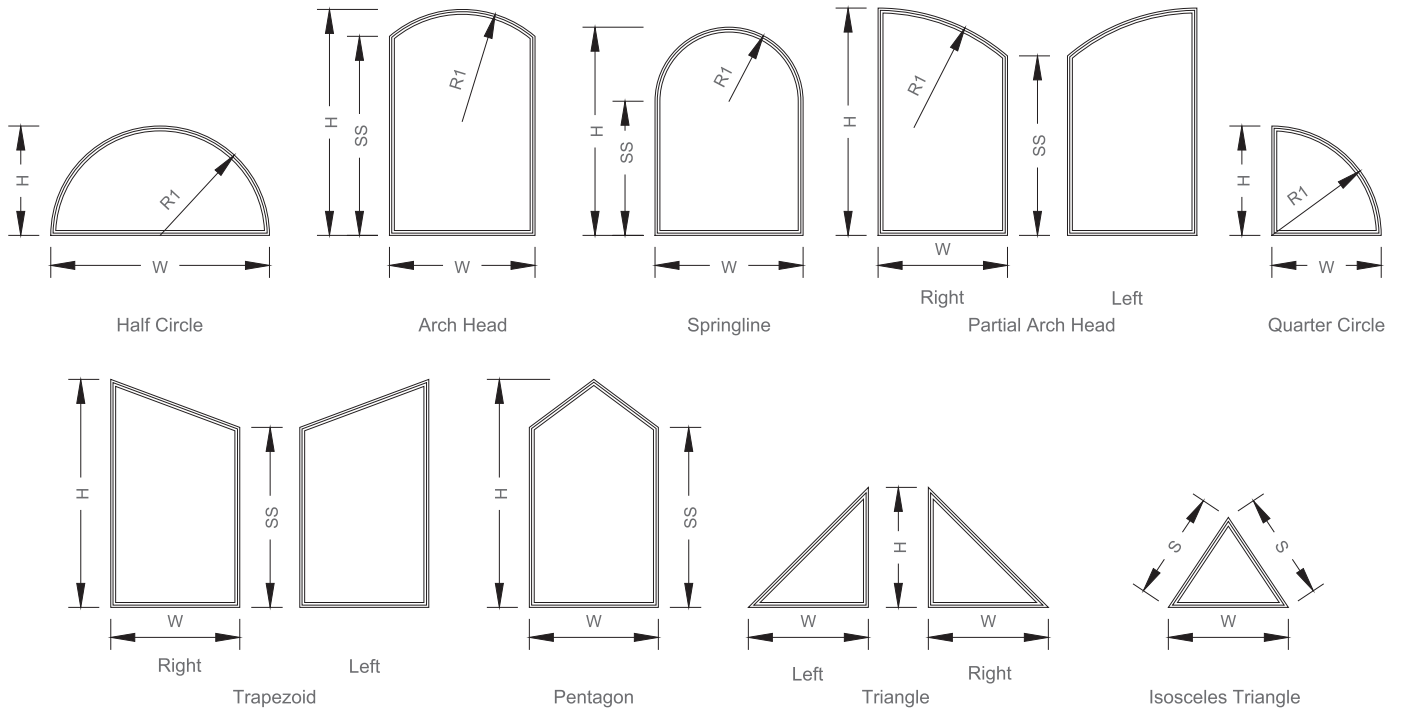
Shapes with Grille Patterns To Match Companion Unit



(1) Available in select shapes.

The above are examples only.

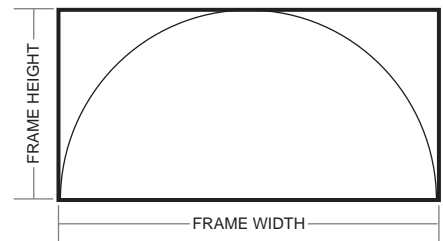
Grilles may not align when multiple units are combined below or beside special shape units.



Frame Dimensions										
Description	Frame Radius		Width		Height			Min. Unit Frame Angle	Max. Unit Frame Angle	Max. Square Footage
	Min.	Max.	Min.	Max.	Min.	Max.	SS			
Half Circle	11.75"	50.75"	23.5"	101.5"	—	—	—	—	—	36
Arch Head	11.75"	150"	17.5"	107.5"	11.5"	95.5"	6"	90°	160°	36
Springline	11.75"	35.75"	23.5"	71.5"	47.5"	95.5"	8"	—	—	36
Partial Arch Head	11.75"	150"	17.5"	71.5"	11.5"	95.5"	8"	40°	160°	36
Quarter Circle	11.75"	71.5"	13.5"	71.5"	—	—	—	—	—	36
Trapezoid	—	—	11.5"	95.5"	11.5"	95.5"	8"	20	160°	36
Pentagon	—	—	17.5"	95.5"	23.5"	95.5"	8"	40	160°	36
Isosceles Triangle	—	—	17.5"	95.5"	11.5"	95.5"	—	20	90°	36
Triangle	—	—	17.5"	95.5"	11.5"	71.5"	—	20	140°	36

Miscellaneous Formulas

Visible Glass	Width = Frame - 3-1/4" Height = Frame - 3-1/4"
Actual Glass	Width = Frame - 2" Height = Frame - 2"



For all shapes, calculate the area as if it were a rectangle.

To convert areas to square meters (m²), multiply square feet by 0.0929.

(-) = Not Available; SS = Short side
Units are available in 1/8" increments.



Impervia® Fixed Shapes

Detailed Product Description

Frame

- Frame is glass-filled ABS with acrylic capstock [with optional foam insulation¹].
- Overall frame depth is 3" or 3-1/4"
- Nominal wall thickness of members is .090" thick.
- Jambs contain factory-drilled (counter-bored) installation screw holes.

Exterior / Interior

- Surfaces are prefinished.
 - Color is [White] [Brown] [Black] [Tan] [Morning Sky Gray].
 - or -
 - Dual-color option [Brown] [Black] [Tan] [Morning Sky Gray] exterior with White interior.

Glazing System

- Quality float glass complying with ASTM C 1036.
- 1" insulating glass [[annealed] [tempered]] [obscure²] [[clear] [Advanced] [SunDefense™] [SunDefense+] [AdvancedComfort] [NaturalSun] [NaturalSun+] Low-E coated, with argon]] sealed and bonded to frame.
- High altitude glazing available.

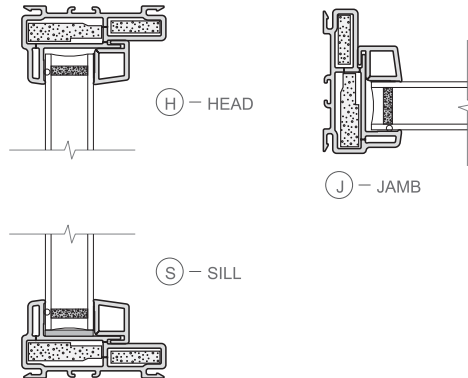
Optional Products

Grilles

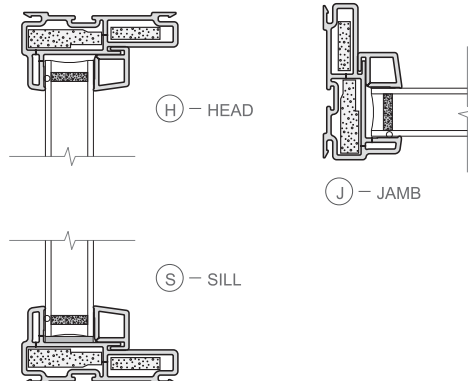
- Grilles-Between-the-Glass
 - Insulating glass contains 3/4" contoured aluminum grilles permanently installed between two panes of glass.
 - Grilles are factory prefinished [White] [Brown] [Black] [Tan] [Morning Sky Gray] to match interior and exterior finish.

Foam Insulation Inserts¹

3" Fixed Frame Window



3 1/4" Fixed Frame Window



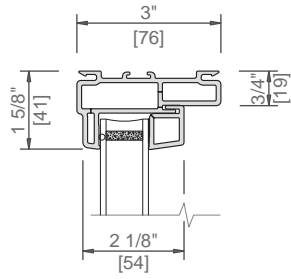
(1) Foam insulation inserts are not available with clear glazing.

(2) Obscure glazing is not available when AdvancedComfort Low-E coated IG is specified.

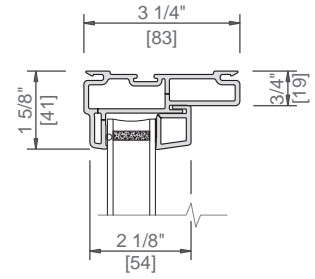


Frame Types

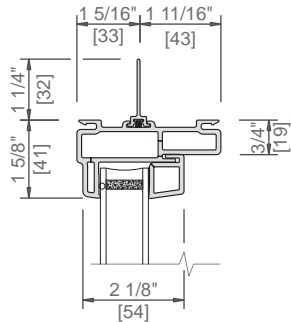
3" BLOCK FRAME



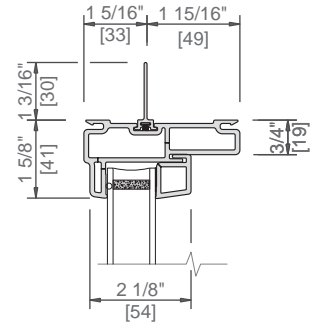
3 1/4" BLOCK FRAME



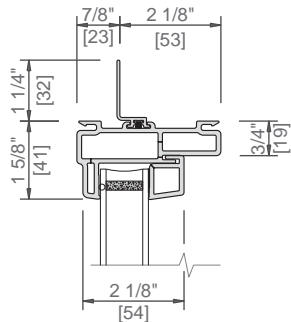
3" BLOCK FRAME
w/ STANDARD FIN



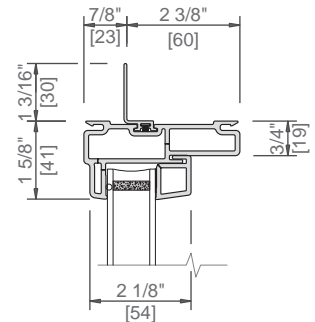
3 1/4" BLOCK FRAME
w/ STANDARD FIN



3" BLOCK FRAME
w/ OFF SET FIN



3 1/4" BLOCK FRAME
w/ OFF SET FIN



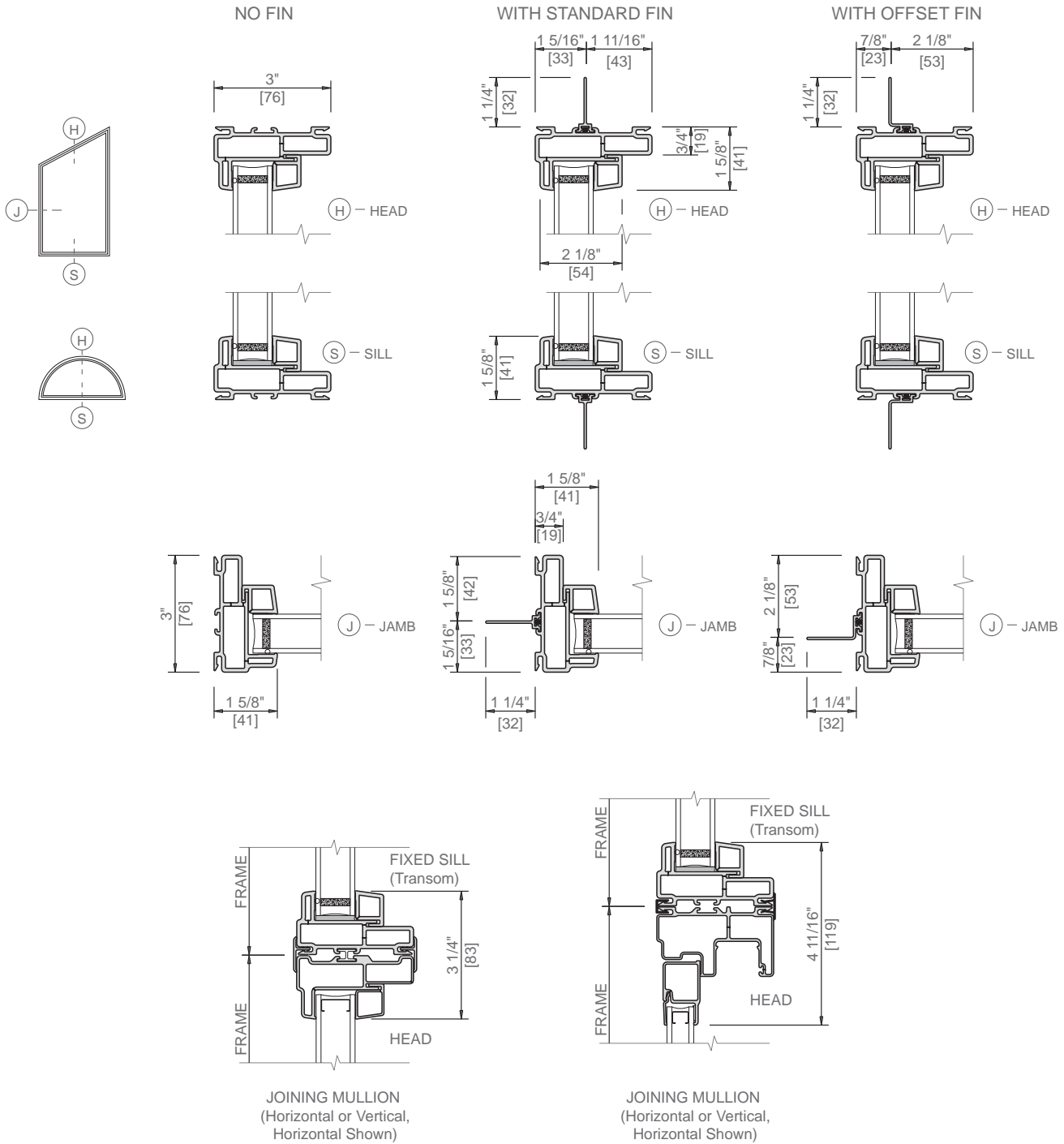
Scale 3" = 1' 0"

All dimensions are approximate.



Impervia® Fixed Shapes

Unit Sections - 3" Block Frame



Scale 3" = 1' 0"

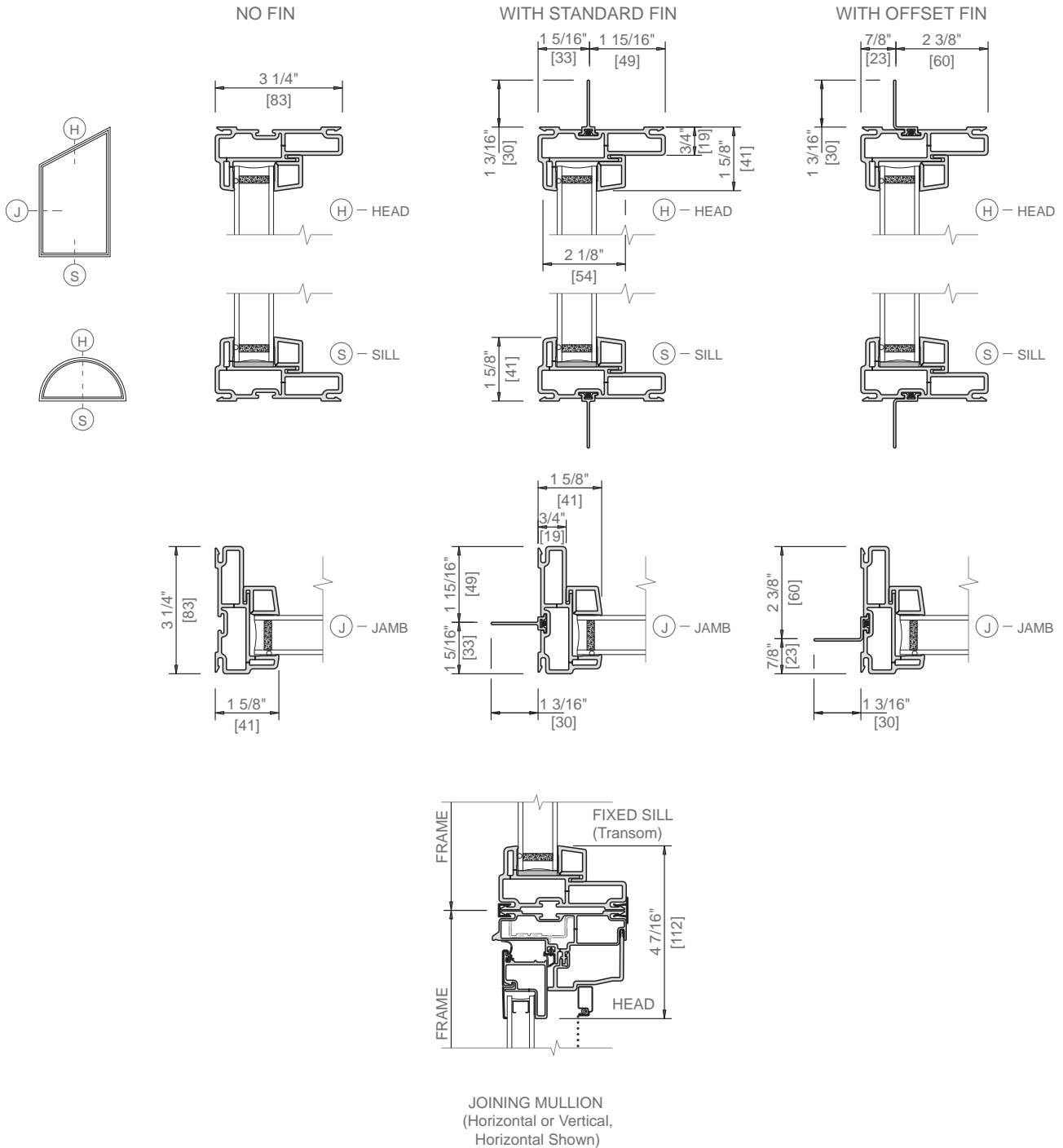
All dimensions are approximate.

See the Installation and Performance section at www.Pella.com for mullion applications and structural limitations.



Impervia® Fixed Shapes

Unit Sections - 3-1/4" Block Frame



Scale 3" = 1' 0"

All dimensions are approximate.

See the Installation and Performance section at www.Pella.com for mullion applications and structural limitations.