

CASCADIA STOREFRONT GLAZING

Following up on the launch of the world's first fiberglass window wall in the Spring of 2019, Cascadia Windows & Doors has tackled another traditionally poor performing building envelope component—storefront glazing.

The company has formally unveiled a high-performance, factory-built storefront solution, utilizing Cascadia's award-winning Universal Series window frames. The Cascadia Storefront boasts significantly higher thermal and water penetration resistance ratings compared to traditional, site-built storefront assemblies. This novel solution allows architects and specifiers to improve a notoriously weak point in a building's assembly, while at the same time offering developers and construction firms a simpler, lower cost option.

- Factory-built, ready for quick on-site installation
- Custom sizes & configurations
- Commercial-grade fiberglass frames
- Fully compatible with various commercial doors (provided by others)
- Double (one Low-E), Triple (two Low-E) & Premium Triple (three Low-E)
- LBC Red-List Free

CASCADIA WINDOWS & DOORS

Cascadia Storefront - Technical Data Sheet



NFRC THERMAL PERFORMANCE SUMMARY VISION AREAS WITH 90% ARGON & 10% AIR



WINDOWS & DOORS - CARDINAL STAINLESS STEEL SPACER BAR					
LOW-E OPTIONS	CENTER-OF-GLASS DATA			UW (U-VALUE OF WINDOW) PER NFRC METHOD [BTU/HR*FT2*F]	
	U _g	SHGC	VT	FIXED EXT GLAZED	FIXED INT GLAZED
CARDINAL STAINLESS STEEL SPACER BAR (90% ARGON FILL, UNO)					
DOUBLE GLAZED (ONE LOW-E)					
180 (#3)	0.26	0.64	0.77	0.26	0.26
270 (#2)	0.25	0.36	0.67	0.25	0.25
366 (#2)	0.24	0.27	0.63	0.24	0.24
340 (#2)	0.24	0.18	0.38	0.25	0.25
TRIPLE GLAZED (TWO LOW-E)					
180/180 (#2/5)	0.13	0.52	0.67	0.15	0.15
270/180 (#2/5)	0.13	0.32	0.58	0.14	0.15
366/180 (#2/5)	0.12	0.24	0.54	0.14	0.14
340/180 (#2/5)	0.13	0.15	0.33	0.14	0.15
TRIPLE GLAZED (THREE LOW-E COATINGS, SURFACES #2,4,6)					
180/180/i89	0.11	0.49	0.65	0.13	0.14
270/180/i89	0.11	0.30	0.57	0.13	0.13
366/180/i89	0.11	0.23	0.53	0.13	0.13
340/180/i89	0.11	0.15	0.32	0.13	0.13

Double Glazed Glass: 6mm-13mm-6mm

Triple Glazed Glass: 6mm-13mm-6mm-13mm-6mm

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NFRC THERMAL PERFORMANCE SUMMARY VISION AREAS WITH 90% ARGON & 10% AIR



WINDOWS & DOORS - TRISEAL SUPER SPACER BAR					
LOW-E OPTIONS	CENTER-OF-GLASS DATA			UW (U-VALUE OF WINDOW) PER NFRC METHOD [BTU/HR*FT2*F]	
TRISEAL SUPER SPACER (90% ARGON FILL)	U _g	SHGC	VT	FIXED EXT GLAZED	FIXED INT GLAZED
TRIPLE GLAZED (TWO LOW-E)					
180/180 (#2/5)	0.13	0.52	0.67	0.14	0.15
270/180 (#2/5)	0.13	0.32	0.58	0.14	0.14
366/180 (#2/5)	0.12	0.24	0.54	0.14	0.14
340/180 (#2/5)	0.13	0.15	0.33	0.14	0.14
TRIPLE GLAZED (THREE LOW-E COATINGS, SURFACES #2,4,6)					
180/180/i89	0.11	0.49	0.65	0.13	0.13
270/180/i89	0.11	0.30	0.57	0.13	0.13
366/180/i89	0.11	0.23	0.53	0.13	0.13
340/180/i89	0.11	0.15	0.32	0.13	0.13

Triple Glazed Glass: 6mm-13mm-6mm-13mm-6mm

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DOUBLE GLAZED - NFRC THERMAL PERFORMANCE SUMMARY VISION AREAS WITH AIR



WINDOWS & DOORS - DOUBLE GLAZED					
LOW-E OPTIONS	CENTER-OF-GLASS DATA			UW (U-VALUE OF WINDOW) PER NFRC METHOD [BTU/HR*FT ² *F]	
CARDINAL (AIR FILL)	U _g	SHGC	VT	FIXED EXT GLAZED	FIXED INT GLAZED
STANDARD DOUBLE GLAZED (ONE LOW-E ON SURFACE #2 OR #3 / STAINLESS STEEL SPACER)					
270 (#2)	0.29	0.36	0.67	0.29	0.29
366 (#2)	0.29	0.28	0.63	0.28	0.28
PREMIUM DOUBLE GLAZED (TWO LOW-E ON SURFACES #2 & #4 / STAINLESS STEEL SPACER)					
270/i89	0.23	0.35	0.66	0.23	0.23
366/i89	0.23	0.27	0.61	0.23	0.23

Note: Triple Glazed with Air information can be found on page 5

Glass: 6mm-13mm-6mm

CASCADIA WINDOWS & DOORS

Cascadia Storefront - Technical Data Sheet



TRIPLE GLAZED - NFRC THERMAL PERFORMANCE SUMMARY VISION AREAS WITH AIR



WINDOWS & DOORS - TRIPLE GLAZED					
LOW-E OPTIONS	CENTER-OF-GLASS DATA			UW (U-VALUE OF WINDOW) PER NFRC METHOD [BTU/HR*FT ² *F]	
CARDINAL (AIR FILL)	U _g	SHGC	VT	FIXED EXT GLAZED	FIXED INT GLAZED
STANDARD TRIPLE GLAZED (TWO LOW-E ON SURFACES #2 & #5 / STAINLESS STEEL SPACER)					
180/180	0.16	0.51	0.67	0.17	0.18
270/180	0.16	0.32	0.58	0.17	0.17
366/180	0.16	0.24	0.54	0.17	0.17
STANDARD TRIPLE GLAZED (TWO LOW-E ON SURFACES #2 & #5 / TRISEAL SUPER SPACER)					
180/180	0.16	0.51	0.67	0.17	0.17
270/180	0.16	0.32	0.58	0.17	0.17
366/180	0.16	0.24	0.54	0.17	0.17
PREMIUM TRIPLE GLAZED (THREE LOW-E ON SURFACES #2, #4 & #6 / STAINLESS STEEL SPACER)					
180/180/i89	0.14	0.48	0.65	0.15	0.16
270/180/i89	0.14	0.30	0.57	0.15	0.15
366/180/i89	0.14	0.23	0.53	0.15	0.15
TRIPLE GLAZED (THREE LOW-E ON SURFACES #2, #4 & #6 / TRISEAL SUPER SPACER)					
180/180/i89	0.14	0.48	0.65	0.15	0.15
270/180/i89	0.14	0.30	0.57	0.15	0.15
366/180/i89	0.14	0.23	0.53	0.15	0.15

Note: Double Glazed Air information can be found on page 4

Glass: 6mm-13mm-6mm-13mm-6mm

CASCADIA WINDOWS & DOORS

Cascadia Storefront - Technical Data Sheet



PASSIVE HOUSE INSTITUTE US [PHIUS]

WINDOWS							
LOW-E OPTIONS	CENTER-OF-GLASS DATA			UW (U-VALUE OF WINDOW) AND UF (U-VALUE OF FRAME) [BTU/HR*FT2*F]			
				FIXED EXT GLAZED		FIXED INT GLAZED	
	U _g	G-VALUE	VT	UW	UF	UW	UF
180/180	0.128	0.514	0.690	0.16	0.18	0.16	0.19
366/180	0.120	0.239	0.563	0.15	0.17	0.15	0.19
180/180/i89	0.111	0.487	0.675	0.14	0.20	0.15	0.22
366/180/i89	0.105	0.230	0.550	0.14	0.20	0.14	0.22

Spacer: Stainless Steel Endur Spacer by Cardinal

Zones: Values for climate zone 4, zone Marine North, and/or zone Marine South. Request full PHIUS certificates for PSI values, additional performance data, and climate zone recommendations.

Glass: 6mm-13mm-6mm-13mm-6mm

SIZES & NAFS TEST RATINGS

WINDOWS						
TYPE	TESTED SIZE [INCHES]	DESIGN WIND PRESSURE PSF (PA)	WATER INFILTRATION PSF (PA)	NAFS DESIGNATORS	AIR INFILTRATION [L/S*M2]	AIR EXFILTRATION [L/S*M2]
FIXED GLAZING	76" x 120"	60 (2880)	15 (730)	AW-PG60-FW	0.01	0.01
FIXED GLAZING	144" x 60"	100 (4800)	15 (730)	CW-PG100-FW	0	0
FIXED GLAZING	102" x 84"	95 (4320)	15 (730)	CW-PG95-FW	0	0

NOTE: Dimensions above indicate NAFS performance tested sizes which may exceed common size limits available. For minimum/maximum sizes available, please consult Cascadia's Vent Size Charts.

Air Infiltration and Exfiltration tests the overall assembly at 75 Pa. All windows meet and surpass the US and Canadian air leakage performance requirements for A3/Fixed



INTERNATIONAL PASSIVE HOUSE INSTITUTE [PHI]

PHI THERMAL DATA				
LOW-E OPTIONS	CENTER-OF-GLASS DATA PER EN 673			FIXED WINDOW
	U _g	G-VALUE	VT	
Calibration Panel	0.700			0.773
180/180	0.646	0.557	0.690	0.728
270/180	0.610	0.353	0.606	0.699
366/180	0.591	0.271	0.564	0.684
340/180	0.601	0.171	0.339	0.691
180/180/i89	0.604	0.531	0.675	0.693
270/180/i89	0.572	0.341	0.592	0.667
366/180/i89	0.556	0.262	0.551	0.654
340/180/i89	0.565	0.165	0.331	0.660

Modeled Size: Windows 1230W x 1480H
Spacer: SuperSpacer® TriSeal™ by Edgetech
Glass: 4mm-16mm-4mm-16mm-4mm



INTERNATIONAL PASSIVE HOUSE INSTITUTE [PHI]

FRAME DATA				
		WIDTH [MM]	U-VALUES [W/M2K]	PSI VALUES [W/M2K]
Fixed Window		58	0.81	0.02

Modeled Size: Windows 1230W x 1480H | Swing Door 1100W x 2200H | Sliding Door 2400W x 2500H
Spacer: SuperSpacer® TriSeal™ by Edgetech

ADDITIONAL CENTER-OF-GLASS DATA INTERNATIONAL PASSIVE HOUSE INSTITUTE [PHI] - 5/14.5/5/14.5/5



LOW-E OPTIONS	CENTER-OF-GLASS DATA PER EN 673		
	U _g	G-VALUE	VT
Calibration Panel	0.700		
180/180	0.689	0.547	0.680
270/180	0.653	0.349	0.598
366/180	0.635	0.269	0.556
340/180	0.645	0.171	0.335
180/180/i89	0.641	0.521	0.664
270/180/i89	0.611	0.337	0.583
366/180/i89	0.595	0.260	0.542
340/180/i89	0.604	0.164	0.326

Spacer: SuperSpacer® TriSeal™ by Edgetech

Glass: 5mm-14.5mm-5mm-14.5mm-5mm

ADDITIONAL CENTER-OF-GLASS DATA INTERNATIONAL PASSIVE HOUSE INSTITUTE [PHI] - 6/13/6/13/6



LOW-E OPTIONS	CENTER-OF-GLASS DATA PER EN 673		
	U _g	G-VALUE	VT
Calibration Panel	0.700		
180/180	0.740	0.529	0.666
270/180	0.706	0.343	0.585
366/180	0.688	0.267	0.544
340/180	0.698	0.170	0.327
180/180/i89	0.686	0.503	0.651
270/180/i89	0.656	0.330	0.572
366/180/i89	0.641	0.258	0.532
340/180/i89	0.650	0.164	0.320

Spacer: SuperSpacer® TriSeal™ by Edgetech

Glass: 6mm-13mm-6mm-13mm-6mm

ACOUSTIC PERFORMANCE

WINDOWS				
	GLAZING	SAMPLE SIZE	STC	OITC
FIXED WINDOW (ASTM E90)	Double 6/4	47.25" x 59.00"	34	28
FIXED WINDOW (ASTM E90)	Triple 6Lami/4/6	47.25" x 59.00"	37	27
TILT & TURN (ASTM E90)	Double 6/4	47.25" x 59.00"	35	28
TILT & TURN (ASTM E90)	Triple 6Lami/4/6	47.25" x 59.00"	37	28
GLASS-ONLY (CALCULATED VALUES) 1" IGU NOMINAL	Double 6/6	Center-of-glass	35	28
GLASS-ONLY (CALCULATED VALUES) 1" IGU NOMINAL	Double 6Lami/6	Center-of-glass	38	31
GLASS-ONLY (CALCULATED VALUES) 1" IGU NOMINAL	Double 6Lami/6Lami	Center-of-glass	40	34
GLASS-ONLY (CALCULATED VALUES) 1.25" IGU NOMINAL	Double 6/6	Center-of-glass	38	31
GLASS-ONLY (CALCULATED VALUES) 1.25" IGU NOMINAL	Double 6Lami/6	Center-of-glass	39	32
GLASS-ONLY (CALCULATED VALUES) 1.25" IGU NOMINAL	Double 6Lami/6Lami	Center-of-glass	41	35
GLASS-ONLY (CALCULATED VALUES) 1.70" IGU NOMINAL	Triple 6/4/6	Center-of-glass	39	31
GLASS-ONLY (CALCULATED VALUES) 1.70" IGU NOMINAL	Triple 6Lami/4/6	Center-of-glass	41	34
GLASS-ONLY (CALCULATED VALUES) 1.70" IGU NOMINAL	Triple 4/4/4	Center-of-glass	36	28

NOTE: Glass-only calculated values for STC and OITC represent approximate values.