

Air, Water and Structural Performance

Alpen's fiberglass windows are tested to national AAMA standards (AAMA/WDMA/CSA 101/I.S.2/A440-11) using independent labs to validate performance against wind pressure, water leaks, and air drafts.

CASEMENT			Performance Grade (Test size)	Performance Grade (Test size)
Performance Grade (PG)	CW-PG 50	(36" x 72")		
Design Pressure	50 psf			
Structural Test Pressure	75 psf			
Air Infiltration @ 1.57	0.02 cfm/ft ²			
Water Penetration Resistance Test Pressure	7.52 psf			
Forced Entry Resistance (ASTM F-588)	Grade 10			
AWNING			Performance Grade (Test size)	Performance Grade (Test size)
Performance Grade (PG)	CW-PG 80	(47" x 32")		
Design Pressure	80 psf			
Structural Test Pressure	75 psf			
Air Infiltration @ 1.57	0.02 cfm/ft ²			
Water Penetration Resistance Test Pressure	12 psf			
Forced Entry Resistance (ASTM F-588)	Grade 20			
FIXED HIGH PROFILE (HP)			Performance Grade (Test size)	Performance Grade (Test size)
Performance Grade (PG)	CW - PG 45	(60" x 60")	CW – PG 35	(72" x 96")
Design Pressure	45 psf		35 psf	
Structural Test Pressure	68 psf		53 psf	
Air Infiltration @ 1.57	0.02 cfm/ft ²		0.01 cfm/ft ²	
Water Penetration Resistance Test Pressure	6.75 psf		5.25 psf	
Forced Entry Resistance (ASTM F-588)	Grade 40		Grade 40	
FIXED LOW PROFILE (LP)			Performance Grade (Test size)	Performance Grade (Test size)
Performance Grade (PG)	CW - PG 70	(60" x 60")	CW – PG 45	(72" x 96")
Design Pressure	70 psf		45 psf	
Structural Test Pressure	68 psf		68 psf	
Air Infiltration @ 1.57	0.02 cfm/ft ²		0.01 cfm/ft ²	
Water Penetration Resistance Test Pressure	10.5 psf		6.75 psf	
Forced Entry Resistance (ASTM F-588)	Grade 40		Grade 40	

Air, Water and Structural Performance

SINGLE HUNG		
	Performance Grade (Test size)	Performance Grade (Test size)
Performance Grade (PG)	LC - PG 55 (45" x 76")	
Design Pressure	55 psf	
Structural Test Pressure	83 psf	
Air Infiltration @ 1.57	0.05 cfm/ft ²	
Water Penetration Resistance Test Pressure	8.25 psf	
Forced Entry Resistance (ASTM F-588)	Grade 20	

DOUBLE HUNG		
	Performance Grade (Test size)	Performance Grade (Test size)
Performance Grade (PG)	R - PG 55 (40" x 64")	
Design Pressure	55 psf	
Structural Test Pressure	83 psf	
Air Infiltration @ 1.57	0.20 cfm/ft ²	
Water Penetration Resistance Test Pressure	8.25 psf	
Forced Entry Resistance (ASTM F-588)	Grade 20	

HORIZONTAL SLIDER – 2-PANEL		
	Performance Grade (Test size)	Performance Grade (Test size)
Performance Grade (PG)	CW - PG 30 (108" x 60")	
Design Pressure	30 psf	
Structural Test Pressure	45 psf	
Air Infiltration @ 1.57	0.10 cfm/ft ²	
Water Penetration Resistance Test Pressure	5.43 psf	
Forced Entry Resistance (ASTM F-588)	Grade 10	

HORIZONTAL SLIDER – 3-PANEL		
	Performance Grade (Test size)	Performance Grade (Test size)
Performance Grade (PG)	R - PG 25 (132" x 48")	
Design Pressure	25 psf	
Structural Test Pressure	38 psf	
Air Infiltration @ 1.57	0.10 cfm/ft ²	
Water Penetration Resistance Test Pressure	3.76 psf	
Forced Entry Resistance (ASTM F-588)	Grade 10	