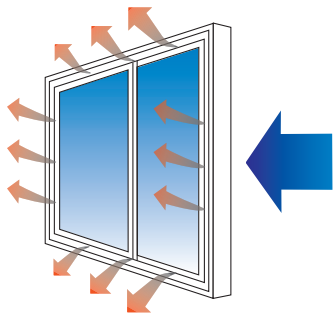


Gilkey Window Performance

Air Resistance

Airtightness is measured by applying 75 pascals of pressure – the equivalent of a steady 25 mph wind – to the outside of the window. Interior air infiltration is then measured in cubic feet per minute per foot of window joint.

VOLUME OF INFILTRATION	WINDOW TYPE
0.002 cu. ft./min./joint ft.	Gilkey fixed, casement and awning windows
0.086 cu. ft./min./joint ft.	Gilkey sliding and hung windows
0.1 cu. ft./min./joint ft.	High-end
0.3 cu. ft./min./joint ft.	Mid-range
0.5 cu. ft./min./joint ft.	Low-end

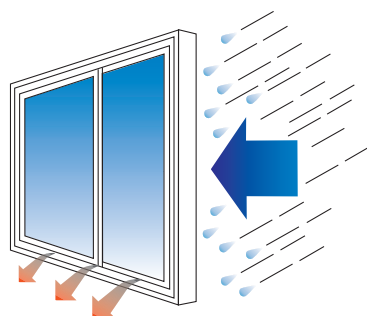


Water Resistance

Watertightness is measured by projecting the equivalent of 5 U.S. gallons of water per hour per square foot of window area – the equivalent of 8 in. of rain in 1 hour. Air pressure is increased to simulate winds varying between 35 and 76 mph. Rating indicate the pressure attained without any interior water leakage.

WIND PRESSURE	GRADE (USA)	WINDOW TYPE
700 pascals · 14.6 psf	DP 85*	Gilkey fixed, casement and awning windows
400 pascals · 8.4 psf	DP 55	Gilkey sliding and hung windows
300 pascals · 6.3 psf	DP 40	High-end
200 pascals · 4.2 psf	DP 30	Mid-range
150 pascals · 3.0 psf	DP 20	Low-end

* Beyond the scope of the standard



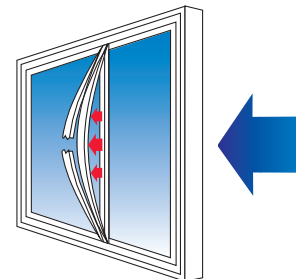
The results are from national tests under the following standards:
AAMA NWDA 1011.S2-97

Wind Resistance

This test measures the wind pressure a 30" x 72" window can withstand without suffering breakage (structural shattering) or permanent damage (structural deformation). The chart below shows the DP (Design Pressure) ratings or the highest wind loads a window withstands.

WIND VELOCITY	GRADE (USA)	WINDOW TYPE
220 mph	DP 85*	Gilkey fixed, casement and awning windows
205 mph	DP 70	Gilkey sliding and hung windows
180 mph	DP 55	High-end
160 mph	DP 40	High-end
130 mph	DP 30	Mid-range
110 mph	DP 20	Low-end

* Beyond the scope of the standard



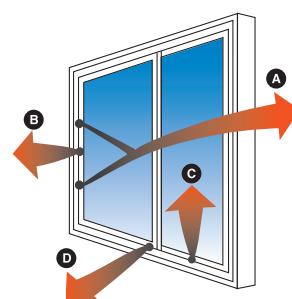
Forced Entry

This test reproduces the efforts of a well-equipped individual attempting to force entry. The test has three phases. Testers begin by trying to force open the window using tools like a knife blade, screwdriver, and wire. They then attach a cable to strategic points on the window and apply increasing loads. If the window continues to resist, they use tools again in a third attempt.

Windows rated F1 have a locking system, but have not been tested for forced entry.

Windows rated F2 have successfully passed the test at level 10. Gilkey windows are rated F2, level 40.

RATING	LEVEL	WINDOW TYPE
Level indicates the initial load applied to the cables		
Level 40	· 300 lb.	Gilkey windows
Level 30	· 250 lb.	High-end
Level 20	· 200 lb.	Mid-range
Level 10	· 150 lb.	Low-end



LOAD ORIENTATION

- A Parallel to the window from the handle
- B Perpendicular to the window from the handle, first by pulling then by pushing
- C Parallel to the window at center of the sash, from the bottom upward
- D Perpendicular to the window where sashes meet, toward the interior