



Saflex® hurricane PVB interlayer

At its best when nature is at its worst



While no single product offers complete protection from hurricanes, typhoons, and violent storms, laminated glass windows, doors, and skylights made with Saflex®, Saflex® HP, or Saflex® Storm protective interlayers can be a critical first line of defense.

In properly designed systems, laminated glass effectively withstands these natural forces to help maintain the critical exterior envelope. If broken by impact from wind-borne debris, the glass fragments bond firmly to the protective interlayer, continuing to safeguard building occupants and contents.

Protecting the building envelope

Under normal circumstances, buildings are designed to allow wind to flow over the structure. During a hurricane, a fully intact building envelope or "outer skin" allows wind to flow at, over, and past the structure without damage. Preserving the building envelope, therefore, is among the most important steps to maintaining the integrity of the structure and ensuring nondestructive wind flow during hurricane-force winds.

Laminated glass with Saflex® interlayers in properly designed windows and doors can withstand the damaging impact of wind-borne debris and remain in the opening during the remainder of the storm. They may even function as a barrier after being broken, helping to preserve the integrity of the interior until repairs can be made.

Meeting building codes and standards

To meet hurricane building codes, commercial and residential window and door systems have to meet vigorous impact, simulating wind-borne debris, and subsequent impact. Test procedures call for the entire system to resist wind-borne debris impact followed by pressure cycling. To comply with the test requirements for an impact-resistant product, the systems may also need to pass additional tests such as air and water infiltration, structural load, and forced-entry resistance.

Additional benefits of laminated glass

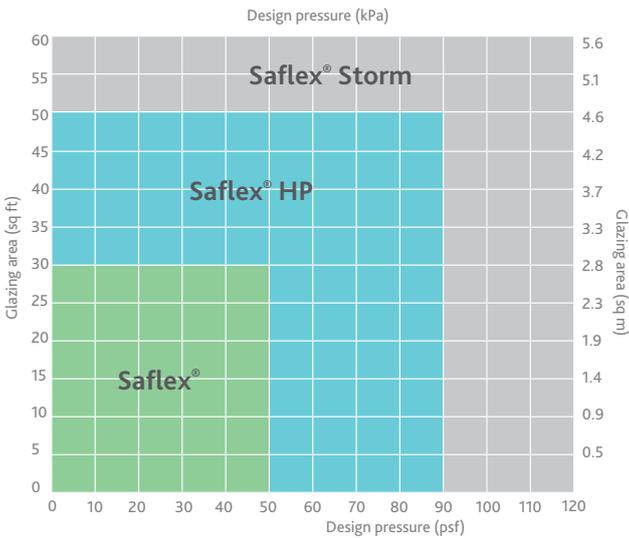
In addition to proven protective performance, Saflex interlayers deliver all the other benefits inherent with laminated glass including:

-  Protecting building occupants and pedestrians from accidental glass impact, breakage, or fallout.
-  Providing burglary and forced-entry resistance, ballistic protection, and bomb blast resistance.
-  Providing hurricane force resistant technology to laminated glazing systems.
-  Filtering more than 99% of UV rays, controlling visible light radiation, and reducing heat buildup and thermal stress.



As shown in the following charts, interlayers are recommended based on window type, glass size, geometry, and performance pressure. For instance, a typical large missile system (or window system below 30 ft) utilizes laminated glass with an interlayer that is 0.090-in. thick, while thinner, specialty interlayers using composite technology are also available (Saflex Storm 0.075-in. thick). A typical small missile system (or window system above 30 ft) utilizes laminated glass with an interlayer that is a minimum of 0.060-in. thick.

Typical glass performance for standard four-side glazing using recommended conditions.



Note: Experienced product performance. Based on panels glazed with structural silicone, minimum 12-mm (1/2-in.) glass bite, standard test temperatures 15°-35°C (59°-95°F). Not guaranteed for all samples.

Extreme wind & impact—glass constructions

Missile	Code/standard	Glass configuration
Large	FBC TAS 201/3 Dade	Glass—2.29-mm (0.090-in.) Saflex—glass
		Glass—2.54-mm (0.100-in.) Saflex HP—glass Glass—1.91-mm (0.075-in.) Saflex Storm—glass
Large	ASTM E1996	Glass—2.29-mm (0.090-in.) Saflex—glass
		Glass—2.54-mm (0.100-in.) Saflex HP—glass Glass—1.91-mm (0.075-in.) Saflex Storm**—glass
Small	FBC TAS 201/3 Dade	Glass—1.52-mm (0.060-in.) Saflex*—glass
Small	ASTM E1996	Glass—1.52-mm (0.060-in.) Saflex*—glass
Large	SBCCI Apdx SSTD-12	Glass—2.29-mm (0.090-in.) Saflex—glass
		Glass—2.54-mm (0.100-in.) Saflex HP—glass Glass—1.91-mm (0.075-in.) Saflex Storm—glass
Small	SBCCI Apdx SSTD-12	Glass—1.52-mm (0.060-in.) Saflex*—glass

* Typical minimum-gauge interlayer for indicated performance. Large missile automatically qualifies for small missile applications. Glass thickness and type determined by use of ASTM E1300.

** Saflex Storm is also known as Saflex VS02

Architects and designers trust Saflex®

Around the world, architects and designers trust Saflex when performance and safety are their most critical concerns. The reason for their confidence is simple. No matter what the specifications or performance targets, Saflex interlayer technology delivers advanced glazing performance for demanding applications.



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The results of insight™

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