

Buyers Guide

For Purchasing Impact Resistant Replacement Windows



Buyers Guide for Purchasing Impact Resistant Replacement Windows

The following guidelines are to help you make an informed decision about the safety and protection for your family, property, investment and your home.

The new Florida building code has made it necessary for the development of new products that protect the window and door openings of new homes. Coastal areas, which are known as the wind-borne debris region, all new construction must have impact resistant glass and doors or non-impact windows and doors that are covered by protective devices such as hurricane shutters. Both impact glass or hurricane shutters, in order to be approved, must pass stringent testing to prove they will withstand impact of wind-borne debris. They must not allow penetration or failure of the envelope of the home. This failure has been proven to cause the most severe damage.

Impact resistant windows and doors are stand alone products which require more stringent forms of testing for approval.

Important:

Remember the product that you purchase is a system. Which means every component including the installation, the size of the product to be installed, the location of where it is installed must be considered. The sealant, the fasteners, the depth of the fasteners, etc. are factors which makes the system complete.

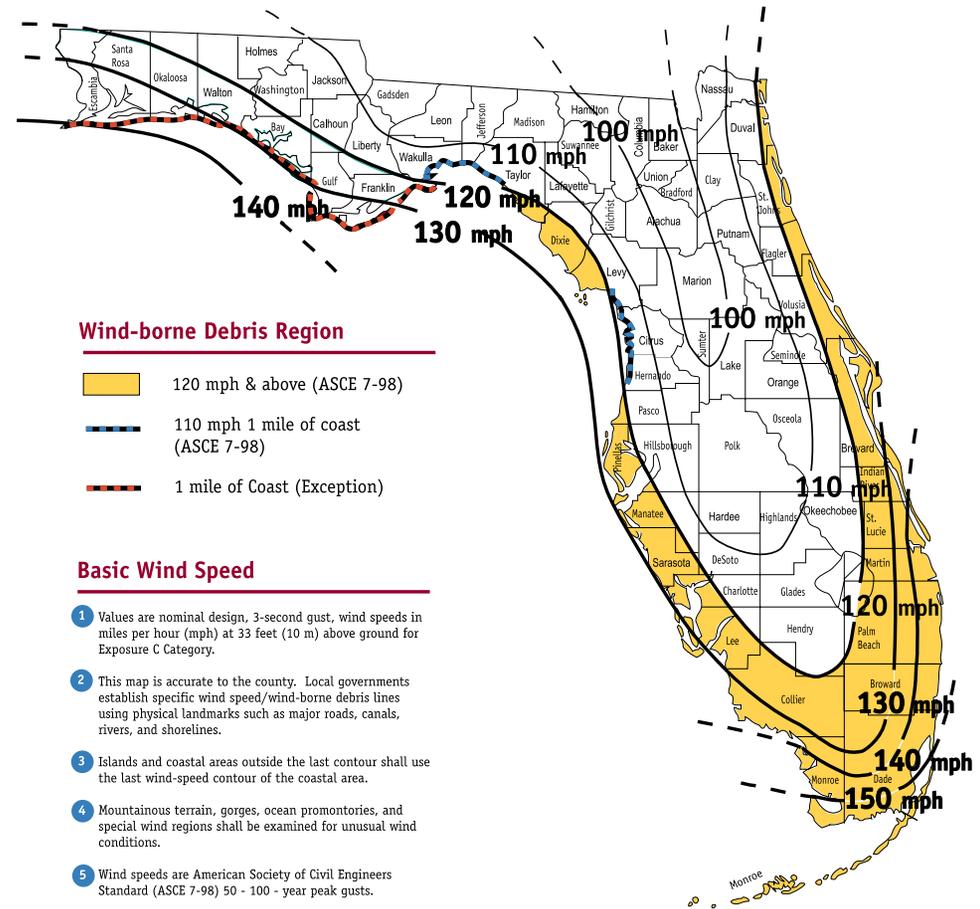
This buyers guide is dedicated to aid you in purchasing impact resistant windows and doors to be installed on existing homes. This process is called retrofitting. Retrofitting is the replacement of existing windows and doors that currently exist. This is done with new windows and doors that give you permanent hurricane protection and security. They do not require shutters.

All hurricane protection is not alike!



State of Florida

Wind-Borne Debris Region



www.florida building.org

Choosing A Company

There is a great demand and need for this product. Unfortunately there are individuals and companies who will attempt to capitalize on this fact. They may not have the product, knowledge, ability, or resources to deliver what is necessary for you to obtain your goal of complete hurricane protection and security.

1) A company must have a state license and proper insurances.

- a) Ask to see actual copies of the state licenses and licences for the municipality where the work is to be done.
- b) Companies holding a General Contractors License are bonded through a state recovery fund which gives you an extra level of protection, incase of poor performance.
- c) Ask to see a current insurance certificates showing liability and workmen's compensation insurance.
- d) Make sure that their general liability is sufficient to protect you in case of damages.

2) Installation

- a) The company must be willing supply you with satisfied customers and make those customers available so you can actually see an installation that has been completed.
- b) Ask if the installers are employees of the company or if they use sub-contractors? If they use sub-contractors, be aware, the sub-contractors must also be licensed and be able to produce their own insurance, liability and workman's compensation insurances.
- c) Are the installers factory trained and certified?
- d) Make sure the company and their installers have experience in retrofitting and can design the product to work for your home.

- e) Does the company obtain a permit prior to installation?
- f) Make sure the company uses stainless steel and or corrosion resistant fasteners.

3) Reliability

- a) Visit there place of business as this will help you to evaluate their ability to serve you as a customer.
- b) Check with the Better Business Bureau to make sure the company has no outstanding complaints. This will tell you how a company resolves its problems.
- c) Is the company a factory authorized distributor or a manufacturer of the product you intend to purchase? *Many companies buy their product through middle-man and have no relationship with the actual manufacturer, and they cannot supply you with a valid warranty that will cover all issues.*

4) Warranties

- a) Make sure that the warranties that you receive are backed by the company that has supplied and installed the product.

Many warranties are issued by the manufacturer and generally do not cover workmanship or the installation of the product.

- b) The company must have a staffed service department to help you if you have a problem.

Use the Buyers Guide Check List!



Buyers Guide to Product Information

1) Ask to see all the engineering, drawings, test reports and or approvals for the exact product that you wish to have installed.

- a) Make sure the product in question meets the design pressure and does not exceed the size limitations for the product to be used. The wind-speed resistance is not relative to the code. The design pressure changes according to location and height of a building. It also depends on geographic location of the building. Being quoted a wind-speed is deceptive and not applicable.

2) If interested in a PVC product Make sure it is a uPVC (unplasticized PVC).

- a) uPVC is resistant to impact, expansion and contraction and works well in the Florida climate.

5) What type of balances are used in operating windows?

- a) There are 3 types of balances 1: Spiral, 2: Constant Force (Coil) and 3: Block and Tackle.
- b) With weight of dual glazed laminated glass, being 8-10 pounds per square foot, it is necessary to make sure sashes operate efficiently. Block and tackle balances are the only balances rated both residentially and commercially.
- c) Spiral balances, unless commercially rated, cannot handle the weight and will frequently break.
- d) Constant force balances must be stacked and on larger windows you may need as many as 10 balances stacked per sash to operate the window. This limits ventilation or opening of that window and also there is more likelihood of a service issue.



- b) Ask if the product has been tested to the Dade County protocol for accelerated aging.

3) Is the product metal reinforced in the frame, meeting-rail and sash?

- a) Some products are just reinforced in the meeting rail and not through out the whole window.

4) Are the corners fusion welded or mechanically fastened?

- a) Fusion welded corners will not loosen over time.

- e) Block and Tackle balances use non corrosive parts with nylon parachute cord and have been tested to last 3-6 times longer than other balances.

6) If you are purchasing Low-E Glass Make sure it is a soft coat not a hard coat and ask to see the specifications of the glass.

- a) There many types of Low-E glass. The hard coat is the least expensive and least efficient. In Florida climate it does very little in the way of preventing heat gain. One of the most efficient Low-E is Solar Ban 60 by PPG. It is specifically designed to stop heat gain.

The above information is designed to help you in making your decision. If a company cannot supply you with the information requested above we would certainly recommend you investigate them thoroughly.

Comparing Hurricane Protection Options For Your Home

TYPES OF PROTECTION	CODE COMPLIANCE	ACTIVATION	STORAGE	AESTHETICS	SECURITY	VISIBILITY	UV PROTECTION	NOISE REDUCTION
FILM	Does not meet FL Building Codes when installed on existing openings.	No effort needed by homeowner	No storage required	No effect on homes appearance	Provides limited “smash/grab” protection	No initial distortion long term de-lamination	Protection dependent on type of film	None
FABRIC SCREEN	Wind Abatement System not a Shutter	Requires a time and labor to activate.	Would Require significant storage space.	Systems detract from the appearance of homes.	Not designed for security.	Limited when activated.	Limited when activated.	None
PLYWOOD PANELS	Must be 3/4” and pre-cut. Can not be used in openings bigger than 8 feet.	Significant labor and time or \$300+ for someone to install or remove.	Would Require significant storage space.	Anchoring systems detract from the appearance of homes.	Not designed for security.	No outside light or view when affixed to home.	Only when boards are affixed on the home.	Insignificant, almost no reduction at all.
STORM PANELS	Must have anchoring system in place that meets FBC requirements.	Manual labor required \$300+ for someone to install or remove.	Requires designated storage space.	Even when not installed, unsightly large bolts protrude from home.	Not designed for security.	No outside light or view when installed.	Only when shutters are affixed on the home.	Insignificant, almost no reduction at all.
ACCORDION SHUTTERS	Must have been installed after 2002.	Requires a moderate amount of time and labor to activate.	No storage required.	Shutter & tracks detract from homes appearance.	Only protects when activated and key locked.	No outside light or view when activated.	Only when shutters are unfolded.	Insignificant, almost no reduction at unfolded.
MANUAL ROLL DOWN SHUTTERS	Must have been installed after 2002.	Requires a moderate amount of time and labor to activate.	No storage required.	Housings detract from homes appearance.	Only protects when they are activated.	No outside light or view when activated.	Only when shutters are activated.	Only when the shutters are down.
ELECTRIC ROLL DOWN SHUTTERS	Must have been installed after 2002.	Requires little amount of time but must have electricity to activate.	No storage required.	Housings detract from homes appearance.	Only protects when they are activated.	No outside light or view when activated.	Only when shutters are activated.	Only when the shutters are activated.
IMPACT RESISTANT WINDOWS	Meets FL Building Code.	Requires no effort needed by homeowner.	No storage required.	No negative effect on appearance of home.	24/7 protection form intruders.	Allows visible light to enter home.	Reduces 99% of harmful UVs	24/7 reduction of noise

Buyers Guide Shopping List

This checklist is designed to help you in the decision making process.

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Question's to review with a company you are inquiring to use	Company 1		Company 2		Company 3	
Have you seen a valid copy of the company's licenses?	Yes	No	Yes	No	Yes	No
Have you seen current insurance certificates for liability and workmen's compensation?	Yes	No	Yes	No	Yes	No
Will the company allow you to speak with and visit existing customers?	Yes	No	Yes	No	Yes	No
Does the company use their own employees for installation?	Yes	No	Yes	No	Yes	No
Are the installers factory trained and certified?	Yes	No	Yes	No	Yes	No
Does the company obtain a building permit prior to installation?	Yes	No	Yes	No	Yes	No
Are there outstanding unresolved complaints with the Better Business Bureau?	Yes	No	Yes	No	Yes	No
Is the company a factory authorized distributor of the product?	Yes	No	Yes	No	Yes	No
Does the company stand behind the warranty 100% for all issues?	Yes	No	Yes	No	Yes	No
Does the company have a place of business/showroom that you can visit?	Yes	No	Yes	No	Yes	No
Does the company have a staffed service department?	Yes	No	Yes	No	Yes	No
Have you seen the engineering and product approvals for the exact product you are purchasing?	Yes	No	Yes	No	Yes	No