

12 Things You Need to Know About Impact Windows

1. What are impact-resistant windows and doors?

Impact-resistant windows and doors are often simply called impact windows and doors. They combine heavy-duty frames with impact-resistant laminated glass and a special silicone glazing process to keep the glass from breaking away from its frame. Impact-resistant glass is comprised of two panes of glass bonded together with a special interlayer of clear polyvinylbutyral.

Although wind-borne debris or an attempted break in may crack the glass on impact, the interlayer keeps the overall window and door intact, preventing destructive winds or intruders from entering your home. Replacing traditional windows with impact-resistant windows will help both to gain the best energy efficiencies and to protect the envelope of your home.

2. Which frame materials and qualities are available?

Choose from vinyl or heavy duty extruded aluminum painted with an electrostatic paint for a low maintenance finish. A minimum frame depth of 2 3/4 inches on windows and 5 1/8 inches on sliding glass doors, with a minimal nominal wall thickness of .062 aids the system in withstanding strong winds. Molded nylon anti-friction sash guides assure a smooth operation.

3. Which impact window styles can I choose from?

Impact-resistant windows and doors come in all design styles, including single hung windows, horizontal roller windows, casement/projected windows, picture and architectural windows, sliding glass and French doors. Design options include colonial and Brittany styles with optional mountings.

4. What are important impact window features?

When choosing impact windows, look for high-performing features such as laminated insulating glass, heat-reducing glass tints, and hi-performance low-E selections. In addition to impact-resistance, these windows also offer the benefits of reduced energy bills and protect furnishings, draperies and artwork from fading.

5. What do I need to know about impact window brands & manufacturers?

Quality and performance are the two main factors when choosing impact windows. Quality products have been tested extensively and no reported failures. In Florida, look for a manufacturer with documented NOAs (Notice of Acceptance by Miami-Dade County) for impact-resistant windows and doors.

Details to look for are whether products are custom-made to order, sized to fit your project perfectly, and have options that perform for your needs. Don't forget to ask your window installer for delivery times!

6. What is an ENERGY STAR qualified impact window?

ENERGY STAR labeled windows meet a stringent energy efficiency specification set by the Department of Energy and have been tested and certified by the National Fenestration Rating Council (NFRC). NFRC is an independent, third-party certification agency that assigns specific energy efficiency measures such as U-factor and Solar Heat Gain Coefficient to the complete window system, not simply the glass.

ENERGY STAR qualified windows may have two or more panes of glass, warm-edge spacers between the window panes, improved framing materials, and Low-E coating(s) which are microscopically thin coatings that help keep heat inside during the winter and outside during the summer.

Your energy bill decreases, which translates to less Carbon Dioxide emissions from the generation of electric power, thus your environmental impact is reduced. Results are already adding up. Americans, with the help of ENERGY STAR, saved enough energy in 2007 alone to avoid greenhouse gas emissions equivalent to those from 27 million cars — all while saving \$16 billion on their utility bills.

7. Does argon gas between glass panes make a difference in energy efficiency?

For air to insulate well, it needs to be as still as possible because moving air carries energy. Argon is heavier than air, so it is less prone to convection or thermal movement. The bottom line is that heavier-than-air gases offer a higher level of insulation. Argon is found naturally in the air you breathe and is completely harmless.

8. What is a Low-E impact window?

Low-E stands for low emissivity and is basically a microscopic, metallic coating applied to a surface of glass that reflects and re-radiates heat energy into or out of a home depending on climate conditions. Using Low-E is an excellent way to increase the energy efficiency of a window.

9. What is Solar Heat Gain Coefficient?

The Solar Heat Gain Coefficient (or SHGC) refers to a window's ability to transmit solar radiation. The SHGC ranges from 0-1. A value of 0 indicates that window functions like a wall, essentially preventing any solar energy from entering the building. A value of 1 indicates that the window functions like an opening, allowing all solar energy in.

In cold climates, a high SHGC can lower heating costs by using passive solar heating. In warm climates, a low SHGC is desired to keep unwanted heat out and reduce cooling costs.

10. What are R-values and U-values?

The R-value is the resistance a material has to the flow of heat. The higher the R-value of your impact window, the greater the resistance to heat. The U-value is the amount of heat that is transferred through a material. The lower the U-value, the better the insulating quality.

11. Does Storm Solutions work with preferred manufacturers?

By purchasing locally made products, you encourage a healthy economy in which you live, and a nation in which you trust. Storm Solutions is an authorized PGT dealer, a local Florida company with quality American manufactured products. Long recognized for outstanding service, delivery and quality, the company has been manufacturing windows in Southwest Florida for over 26 years.

We offer the complete line of new construction and replacement non-impact windows and doors with aluminum and vinyl frames. We also serve the commercial market with the Architectural Systems product line. PGT's stellar 99% on time delivery record means projects stay on schedule! PGT's innovation is unmatched and includes Energy Star compliant configurations and product components such as the best performing warm edge spacer.

PGT's WinGuard is the nation's most popular brand of impact-resistant windows and doors and has been used on over 2 million installations. PGT has more NOAs (Notice of Acceptance by Miami-Dade County) than any other manufacturer of impact-resistant windows and doors.

Products are tested at much larger sizes than most manufacturers and throughout the storm seasons of 2004-2005, there have been zero reported failures! That with a PGT window or door, you're assured that it will perform to your requirements. And the same technology that protects you from hurricane debris proves to be a formidable challenge to intruders.

12. Can impact windows replace hurricane shutters?

Yes, once your home or business is protected by impact-resistant windows and doors, no additional hurricane shutters or screens are needed. Miami-Dade County compliant impact windows are tested to withstand wind-borne debris or an attempted break in. Even though the glass may crack on direct impact, the interlayer keeps the overall window and door intact, preventing destructive winds or intruders from entering your home.

If you would like to learn more about impact-resistant windows and doors or any other hurricane protection product, please allow us to schedule a free consultation at your convenience. Once you talk to the experts, your decision will be easy.

REQUEST A FREE IN-HOME ESTIMATE