

# SafeHarbor<sup>®</sup>

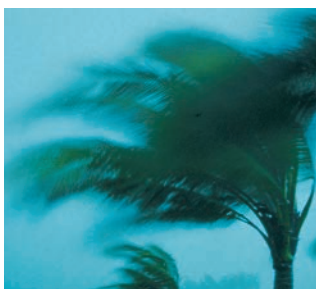
## Vinyl Impact Windows & Doors

*For New Construction & Replacement Applications*





SafeHarbor® vinyl impact windows and sliding patio doors are engineered to protect homes against dangerous weather, even hurricane force winds. By reducing the possibility of flying debris penetrating the glass, SafeHarbor windows greatly lower the chance of structural and water damage or even total destruction.



SafeHarbor products are designed to look like traditional windows and doors, but they are constructed of impact-resistant safety glass embedded in heavy duty, reinforced frames. SafeHarbor Vinyl Impact windows and sliding glass doors provide an added measure of safety to help protect your home.

**Performance Tested** In independent lab testing, standard windows and SafeHarbor® windows were impacted with an 8-foot long 2 x 4 fired from an air cannon at speeds up to 50 feet per second (35 mph). Both types of windows were exposed for five hours by combined positive and negative pressure simulating hurricane force winds.



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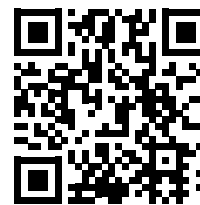


In the testing, a *sheet of plywood* was placed in front of the standard windows – often added as an additional layer of protection in hurricane preparation. The 2x4 fired from the cannon actually penetrated through both the plywood sheet AND the standard window glass.

SafeHarbor windows performed as designed – the impact-resistant glass shattered, but the interlayer safety membrane held the pieces firmly in place, stopping the 2x4 projectile from penetrating. Not only did the SafeHarbor glass remain in its window frames throughout testing, the windows still operated after the testing was completed.



See the test video of how SafeHarbor windows perform against wind-borne debris.





Impact resistance is key with the **Series 65** double hung window, designed to resist hurricane force winds and flying debris. With thick, laminated glass, the Series 65 safeguards against shattering glass. Both sashes on Series 65 double hung windows operate vertically and tilt in, meeting coastal wind and hurricane debris code requirements.



- Constant Force Coil balance system assures easy sash action
- Dual push-button night latches
- 1-1/8" insulated glass panel with warm edge spacer system
- Multiple glass options available
- Full screen and Locking half screen optional
- Interior wood laminate optional
- 8 exterior painted colors optional
- Brass or brushed nickel hardware optional

See comparison chart on page 7 for full array of features and options.



The comparable SafeHarbor® Series 265 window line for replacement applications includes double hung, horizontal sliding and picture window styles.



- Block & Tackle balance system
- Step Sill Design for structural strength and internal drainage
- Aluminum reinforced meeting rail, lock rail, lift rail and stiles for ultimate structural performance
- Dual low-profile, positive action locks (27 1/4" and wider)
- Multiple glass options available
- 3/4" or 5/8" flat grid, 5/8" contoured grid or 1-1/8" Simulated Divided Lite (SDL) grid optional

See comparison chart on page 7 for full array of features and options.



Series 35 windows are available in four different frame types for multiple applications:



*Nail Fin Only*  
(no J-Channel)



*J-Channel*  
(nail fin & front flange)



*Front Flange Only*



*Box Frame*  
(no nail fin & no front flange)

# Series 35

The Series 35 single hung window is designed to resist hurricane force winds and flying debris at a great value. With our thickest laminated glass system plus a .090" PVB interlayer, the Series 35 also safeguards against shattering glass. This window also provides moderate protection from UV fading and exterior noise.



Series 35 horizontal sliding windows are the perfect solution for large, wide areas. Also available in picture window style.



The base SafeHarbor® Series 30 impact resistant vinyl single hung windows are precision engineered and meticulously crafted to provide years of worry free service. In addition to their beautiful appearance, they meet or exceed AAMA and ASTM standards for resistance to impact by airborne debris and buffeting by hurricane force winds.



- Heavy-duty spiral balance system
- Concealed drainage system keeps dust out and water drainage clear
- 7/8" insulated glass panel with warm edge spacer system
- Aluminum reinforced stiles and bottom rail for enhanced structural performance
- Low-E Glass, Low-E Glass with Argon Gas and Ultra Low-E with Argon Gas
- 3/4" or 5/8" flat grid, 5/8" contoured grid or 1-1/8" Simulated Divided Lite (SDL) grid optional

See comparison chart on page 7 for full array of features and options.

With a fixed top sash and a vertically operating bottom sash, Series 30 single hung windows are elegant yet practical in their simplicity, recalling memories of truly grand homes in the finest American tradition. The sash is easily removable for cleaning.



The Series 30 horizontal sliding window is a high-performance product that offers the function and appearance of more expensive window styles at an affordable price.



For replacement applications, we offer the similar SafeHarbor® Series 230 window line that also includes single hung, horizontal sliding and picture window styles.

Series 70 casement windows feature crank-out sashes that provide great ventilation and unobstructed vertical viewing. They are the perfect installation alternative over a kitchen sink to allow easy opening of the sash. Series 70 windows meet all AAMA/ American Architectural Manufacturers Association specifications for hurricane impact and cycle testing standards.



See comparison chart on opposite page for full array of features and options.

- Sash cranks open for maximum ventilation, comfort and easy cleaning
- Heavy-duty coastal hardware with single-lever, multi-point lock for increased security
- Folding handle operates smoothly and folds into assembly so it will not interfere with window treatments
- 7/8" insulated glass panel with warm edge spacer system
- Low-E Glass optional
- 3/4" or 5/8" flat grid, 5/8" contoured grid or 1-1/8" Simulated Divided Lite (SDL) grid optional

Safe Harbor® Series 270 casement windows are offered for replacement applications.

The SafeHarbor Series 352 impact resistant patio door opens up a world of possibilities for creating a fashionable, functional gateway to the outdoor world. Classic styling and superior construction combine to produce a low-maintenance, high-performance patio door that not only looks great, but also features a laminated, tempered glass construction that screens out ultraviolet light, reduces outside sound transmission and reduces solar heat gain.

- Insulated glass panel with warm edge spacer system provides energy saving thermal performance
- Operable panels feature heavy-duty, tandem ball bearing rollers with 2" diameter wheels for durable, easy operation
- Multi-point locking system improves security
- Integral, pre-punched nail fin targets proper screw location for secure installation (removable for replacement applications)
- Screen standard
- Low-E Glass optional
- 5/8" or 3/4" flat, 5/8" contoured or 1 1/8" simulated divide lite grids available




# SafeHarbor®

## Window Feature Comparison

S = Standard    O = Optional

Series 30 230    Series 35    Series 65 265

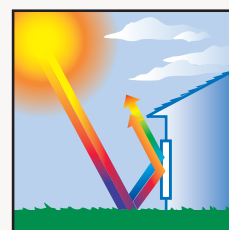
CONSTRUCTION	Series 30 230	Series 35	Series 65 265
Vinyl impact construction meets AAMA hurricane debris test protocols	S	S	S
Complies with AAMA 506 standards (ASTM E 1886 & ASTM E 1996)	S	S	S
3/4" constant force coil balance system assures easy sash action			S
Block & tackle balance system		S	
Heavy-duty spiral balance	S		
Heavy-duty construction qualified for use in a wide variety of construction applications	S	S	S
Precision-mitered, fusion welded corners for advanced structural integrity	S	S	S
Double, reinforced interlocks with rebar to provide superior structural integrity, ultra strength and added security	S	S	S
Dual, positive action locks help provide a weather-tight seal and added security	S	S	S
Dual push-button night latches position sashes for optimal ventilation			S
Multi-chambered frame assembly improves thermal performance and enhance sound absorbency	S	S	S
Aluminum reinforced rail for enhanced structural performance	S	S	S
Integral, pre-punched installation fin for proper screw location for secure installation	S		S
No nail fin for replacement application	S		S
J-Channel ( Nail Fin & Front Flange )		O	
Nail Fin Only		O	
Front Flange Only		O	
Block Frame ( no Nail Fin & no Front Flange )		O	
Concealed drainage system keeps dust out and water drainage clear	S		S
Step sill design for structural strength and internal drainage		S	
Factory mulling of twins and triples	S	S	S
Available in complementary picture window, sliders and special shapes	S	S	S
Dual-fin weather stripping	S	S	S
Half screen	S	S	S
Full screen			O
Locking half-screen			O

GLASS	Series 30 230	Series 35	Series 65 265
Thick laminated glass system with .090" PVB interlayer	S	S	S
7/8" insulated glass panel with warm edge spacer system	S	S	
1-1/8" insulated glass panel with warm edge spacer system			S
Low-E Glass	O	O	O
Low-E Glass and Argon Gas	O	O	O
Ultra Low-E Argon Glass package      May be required for Energy Star rating 	O	O	O
Non-Reflective Glass package	O	O	O

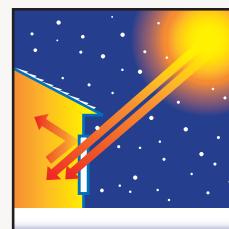
AESTHETICS	Series 30 230	Series 35	Series 65 265
White vinyl	S	S	S
Almond vinyl	O	O	O
Interior wood laminate (Light Oak, Dark Oak or Cherry)			O
Exterior painted colors: Hunter Green, Dark Chocolate, Terratone, Clay, Brick Red, Gray, Bronze or Tan finish (white interior only)			O
3/4" or 5/8 in. flat grid	O	O	O
5/8 in. contoured grid	O	O	O
1-1/8 in. simulated divided lite	O	O	O
Grooved glass patterns			O
Leaded glass with brass coming			O
Brass or brushed nickel hardware			O



### Benefits of the Low-E Glass Option



During the summer, it reflects the sun's heat energy away from your house for cooler inside temperatures.

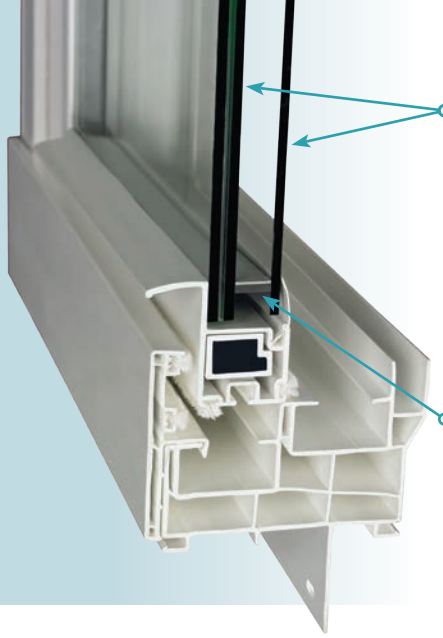


During the winter, this glass lets in natural light and keeps heat energy inside your house.

This gives you better insulation, less condensation and greater energy savings all year.

GLASS U-Value	Series 30 230	Series 35	Series 65 265
Low-E/Argon (without grid)	.30	.29	.30
Ultra Low-E/Argon (without grid)	.29	.29	.29

PERFORMANCE	Series 30 230	Series 35	Series 65 265
Air (cfm/ft²)	0.10	0.08 (53 x 77)	0.08 (36 x 74)
Water (psf)	8.35	8.35	9.19
Hung DP Rating	DP 55 max size 72 x 48	DP 55 max size 53-1/8 x 77	DP 50 max size 72 x 48



**Impact-Resistant Glass Construction** SafeHarbor windows feature laminated safety glass combined with a thermally efficient insulating glass system. The exterior lite consists of a 1/8" thick annealed double strength glass panel. The interior lite is constructed of two 1/8" thick annealed glass panels laminated with an interlayer membrane that becomes transparent during the laminating process and forms a 5/16" thick panel. This unique laminated glass system combined with a second insulating lite creates an impact-resistant barrier and delivers outstanding thermal efficiency.

**The Warm-Edge Advantage – Standard** Specially insulated spacers between the glass panes are designed to flex with the glass in hot or cold temperatures to resist sealant failure. The insulated spacers also help keep the edges of the glass warmer, dramatically reducing condensation while keeping cold air out and warm air in.

More reasons why SafeHarbor products also offer a great defense from intruders because forced entry becomes exponentially more difficult. The durable vinyl construction provides better protection from the corrosive effects of salt air. SafeHarbor windows and sliding patio doors also block 99.9% of the sun's UV rays to help reduce the fading of home furnishings. All this combines for better protection from outside forces.



## Upgrade SafeHarbor with Energy Efficient Low-E Glass Option

**Optional Energy Saving Low-E Glass Technology** Low-E glass is coated with a virtually invisible layer of silver that reflects radiant solar energy while permitting visible light to pass through the glass. In cold winter climates, the Low-E glass helps keep rooms warmer by reflecting heat back into the home while letting warm, solar rays in. In hot, summer temperatures the Low-E glass lets visible light pass while blocking infrared and ultraviolet radiant solar energy. Your rooms stay cooler and you save on precious energy costs. An added bonus of Low-E glass is that it helps protect room furnishings from fading by blocking radiant solar energy.

# SafeHarbor®

[www.safeharborwindows.com](http://www.safeharborwindows.com)



Proud to promote energy efficient products in conjunction with the Energy Star® for Windows program.

Scan this QR code to see more on SafeHarbor.



***Kids Can't Fly***  
*Screens are not designed to restrain a child from falling through an open window. Please take proper precautions.*

Manufacturer reserves the right to substitute components as necessary for continued product improvement.

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