



# The New Industry Standard

## **BREAKTHROUGH TECHNOLOGY** for the Window and Glass Industries

### Certified Tests

- The Consumer Product Safety Commission (CPSC) Part 1201 Category II
- The American National Standards Institute (ANSI) Z97.1 (unlimited)
- NES Report # NER-588 ([www.nateval.org](http://www.nateval.org))
- The IGMA CBA test standard for sealed IG units
- The Dade County, Florida Large Missile Impact & Cycling Test by a certified accredited independent laboratory
- British Standards 6206 & 476
- SS-EN 356 Level P2A

*Hardcopies available upon request*



***The Original Impact  
Resistant Composite***

*An ISO 9002 Registered Company*



## Film Technologies International, Inc.

2544 Terminal Drive South • St. Petersburg, FL 33712 • 800-777-1770 • Fax 800-327-7132 • [www.filmtechnologies.com](http://www.filmtechnologies.com)

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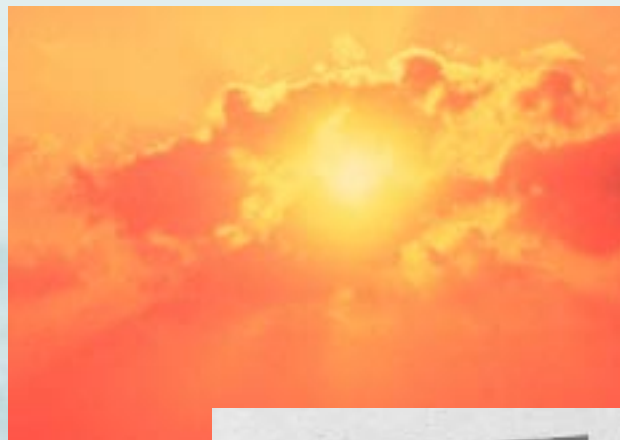
# Safe-Gard® Performance

## Just the Break You've Been Hoping For

Safe-Gard is manufactured by Film Technologies International, Inc., a worldwide innovator in solar control and safety film products. For over ten years, there has been a growing need in the window industry for a lightweight, low-cost, durable alternative to tempered and safety glass. Hailed as the original impact resistant composite, Safe-Gard has led the way in helping window producers and glass manufacturers build windows and doors that meet increasingly complicated testing standards. Dade/Broward County, Florida standards are some of the most difficult, and they set the protocol for all other coastal U.S. cities.

Safe-Gard blocks up to 99% of the sun's harmful ultraviolet rays that cause skin cancer and that crack, fade, and damage interior furnishings exposed through standard glass. Safe-Gard also adds extra protection to broken glass. Safe-Gard film holds broken glass shards together inside the frame upon impact, and adds a near impenetrable secondary backing to window glass broken due to vandalism. Thieves will think twice before taking the extra time to tear through Safe-Gard film, even after breaking the glass.

Safe-Gard complies not only with U.S. standards such as the CPSC Part 1201 Category II; ANZI Z97.1 and NES #NER-588 ([www.nateval.org](http://www.nateval.org)), but also meets the British Standards 6206 and 476, and DIN A1 and A3.



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# Special Applications

## Dry Lamination Mechanical Specifications

FTI has specially designed a dry film lamination line, shown here at a customer's factory, that ensures particulate-free film-to-glass applications of thin films. The glass washer is designed to FTI specifications to prep the glass for a pure, clean laminating process.

With the laminator designed by FTI, Safe-Gard can be dry laminated to glass during the window manufacturing process and incorporated into an insulated glass (IG) unit. Available in 72" width, the laminator is designed to hold 1 roll or 3. With a modular clean room atmosphere, you're assured the highest, dirt-free quality standards.



Laminator



Modular Clean Room

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## Leadership in the Industry

### At FTI, Window Film Is Our Business

It begins in the FTI Research & Development laboratory where our highly trained technicians are constantly developing new innovative products as well as improving upon existing technology. Our films are then put through hours of testing for accelerated weathering, abrasion resistance, peel adhesion, and tensile strength using the newest processes and equipment including the Atlas HI 35 3 Sun Xenon ARC weathering. Our technicians conduct detailed inspections of all raw materials used in the manufacturing process, and utilize the most advanced coating and lamination techniques.



Accelerated weathering



Atlas HI 35 3 Sun Xenon ARC weathering



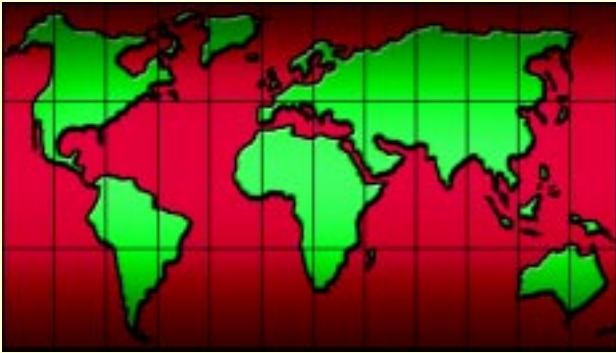
Safe-Gard films are converted in a “clean room” atmosphere to assure the highest quality standards, backed by our ISO 9002 registration and certification. All FTI film products are rolled down to plastic, not cardboard, cores that help roll films tighter, increasing product shelf life and providing the highest quality of dirt-free performance. Each roll of film is individually wrapped and fitted with end caps, used to suspend the film, thereby avoiding the waste incurred by flat spots when rolls are stacked. The film is then packaged on skids.



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**Around the World in Over 60 Countries**



**Meeting High Standards**

SAFE-GARD® meets the ANSI Z97.1 (Unlimited) and CPSC 1201, Category II safety glazing standards and it has also received an NES certificate of compliance ([www.nateval.org](http://www.nateval.org)) with the provisions of the 2000 International Code Council, BOCA National, SBCCI, and ICBO Uniform Standard



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***The Original Impact Resistant Composite***

**BREAK-  
THROUGH**

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**for the Window  
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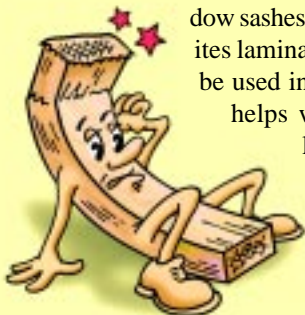


## **SAFE-GARD® is Getting Attention**

It's like getting hit by a 2 x 4. SAFE-GARD® has a cost-effective way for window and glass manufacturers to meet the stringent new hurricane protection building codes being adopted in Florida and other coastal U.S. states. Our breakthrough window design concept entails dry laminating SAFE-GARD® thin composite films directly to double-strength glass, and inserting it into insulated glass units (IG) during the window manufacturing process. The units, laminated with SAFE-GARD®, recently passed the stringent 2 by 4 missile impact and cycling requirements (PA 201 and PA 203) of the Dade and Broward County editions of the Southern Florida Building Code.

## **Less Cost, Lighter Weight**

Why is our new concept significant? Because it allows window producers to offer windows and doors that meet the building codes at a lower cost, and using materials that are lighter than products employing PVB laminated glass. SAFE-GARD® can be incorporated into most residential or commercial window applications and IG units without affecting the integrity or durability of the seal and without adding extra weight to window sashes. SAFE-GARD® film composites laminated to annealed glass can also be used in lieu of tempered glass. This helps window producers avoid the lead-times and other problems, often associated with obtaining tempered glass in custom sizes.



## **The Surest Security You'll Ever Hear**

In the past, dangerous hurricane winds, torrential rain and tornadic activity call for the need to "batten down the hatches". With windows manufactured with SAFE-GARD® thin film composites, the next sound you hear in a thunderstorm will not be the shattering of breaking glass but instead, the dull reverberation of protection. One good whack on the glass and that's all it takes for vandals and thieves to enter your home. With windows and doors reinforced with SAFE-GARD®, a burglar's dream is answered with a stiff thud. Even the most hardened vandal will find difficulty penetrating the film-to-glass unit! Regular glass windows are a catalyst for the scorching sun and its cancer-causing, color-fading, heat-intensive ultraviolet rays. Windows built with SAFE-GARD® thin film composites take the sizzle out of the sun's spark. By applying SAFE-GARD® to the glass before the windows are made, the film forms a bond with the glass that greatly reduces the possibility of the glass coming loose from the frame in the event of any impact.

# Breakthrough Technology for Window Manufacturers



## SAFE-GARD® THIN COMPOSITES

SAFE-GARD® dry-laminated composite film has passed the stringent test standards of the Dade County 2 by 4 missile impact and cycling requirements of the Southern Florida Building Code. This breakthrough brings about a cost-effective way for window manufacturers to offer windows and doors that are less costly and lighter than products employing PVB laminated glass.

SAFE-GARD® can be incorporated into most window applications and IG units without affecting the integrity or durability of the seal and without adding extra weight to window sashes.

SAFE-GARD® meets ANSI Z97.1 (Unlimited) and CPSC 1201, Category II safety glazing standards and has received an NES certificate of compliance ([www.nateval.org](http://www.nateval.org)) with the provisions of the 2000 International Code Council, BOCA National, SBCCI, and ICBO Uniform Standards.



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**SAFE-GARD® is a product of  
Film Technologies International, Inc.**

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