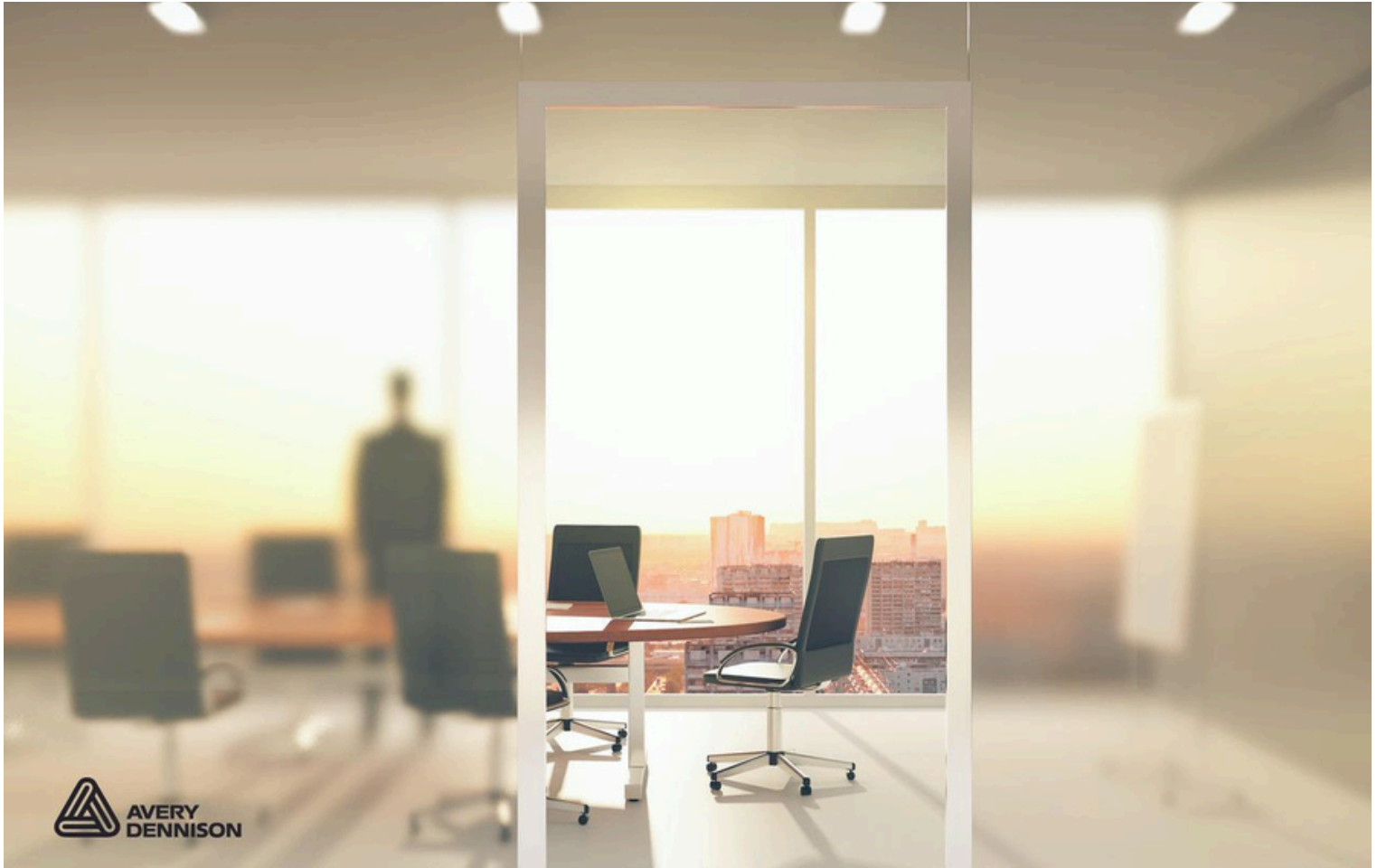# HOW TO ENHANCE BUILDING SECURITY WITH WINDOW FILM SOLUTIONS

To understand what's driving interest in and demand for window security solutions, one only has to turn on the television or read the news. There is no shortage of headlines related to property damage from a variety of sources ranging from extreme weather events and random accidents to intentional acts of vandalism, political protests, and public shootings.

"Communities and citizens are calling out for something to be done, and one of the ways elected officials are responding is by incentivizing more robust and resilient structures that can withstand some of these threats," says Cassandra Yu, Market Segment Strategy Lead, Architecture/Branding Graphics/Materials Group, North America at Avery Dennison®. For example, Texas, Missouri, Tennessee, and South Carolina are among those states that have

passed mandates and/or incentives for the installation of secure window solutions in schools. According to the International Window Film Association (IWFA), approximately 20 states have legislation and grant funding that encourages use of safety and security glass solutions in certain vulnerable school districts across the country.
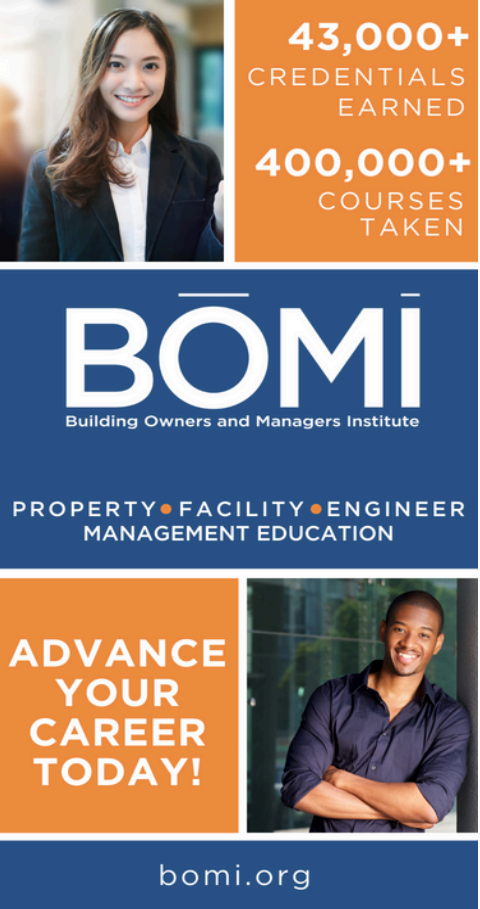
Private sector facilities also recognize the need to take proactive measures to protect people and property. Losses from extreme weather events – and rising insurance costs – are a powerful incentive for property owners and managers to improve resiliency. Natural disasters caused US$368 billion in economic losses worldwide in 2024, with 60% of these damages uninsured, according to Aon's newly released 2025 Climate and Catastrophe Insight report.

Security window films are a cost-effective solution that can help to protect people and property. This How-To Playbook is divided into five sections to inform on key aspects of buying and installing security window films.

1. Overview of window security product solutions
2. The benefits of safety window film
3. What to know about buying security window film
4. What to know about installation, inspection, and third-party validation
5. Key Takeaways

Overview of window security product solutions

One option for doors and windows is glass engineered by OEM for safety and security. Modern safety glass can incorporate protective features such as resistance to impact intrusion and ballistic attacks. Typically, this glass is engineered with multiple layers of laminated materials, often combining glass with things like polycarbonate or other polymers that absorb and disperse the energy from impacts.

This type of safety glass is much costlier than standard architectural glass. This solution is generally not a realistic option for a retrofit due to the high cost involved in replacing existing glass. It also tends to be heavier and thicker, which may reduce optical clarity.

A more cost-effective option for retrofits is window film that is engineered for application to existing glass. These cost-effective films feature a hard coat that protects the surface during and after installation. The laminate layering contributes to the finished film's protective features and can range in thickness from 4 to 20 millimeters. The film is adhered to substrate glass with a pressure-sensitive adhesive.

Films protect people and property from flying glass caused by a variety of threats that include:

- Blast
- Forced entry
- Safety
- Earthquake / seismic event
- Windstorm
- Defacement
- Spontaneous failure

Different types or thickness of security film are recommended depending on the application or what you're trying to solve. "It's really important to understand for the product you're specifying what it can and can't do," says Yu.
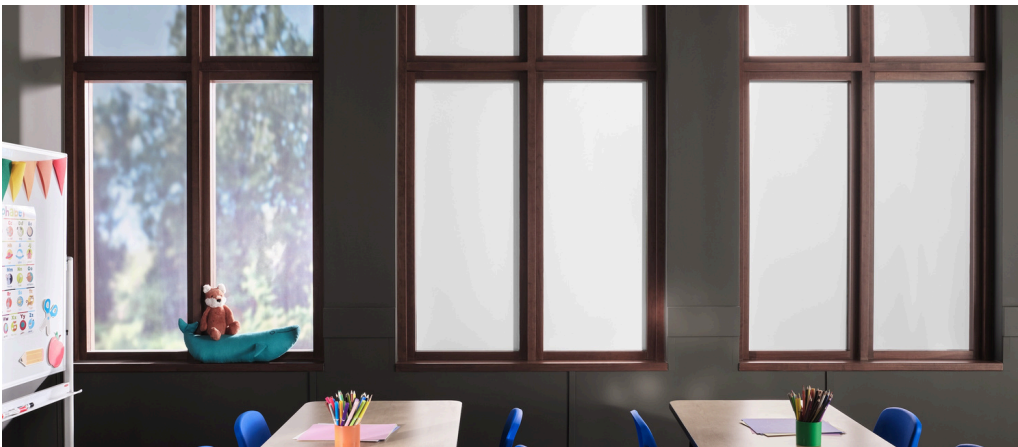
The benefits of security window film

Although OEM glass can be engineered for many of these same threats, films are a very cost-effective way to get the security benefits that a building needs. Films also can be installed either on the interior or exterior of the glass.

"Imagine the cost, time and resources required to replace dozens of windows and doors in an office building," says Yu. "Security window films are the most realistic option for retrofitting an existing building because films can be installed in existing glass much more quickly and less expensively, with minimal disruption to building operations."

Films are typically clear to help maintain building aesthetics, but they're also available in a wide range of colors and shades to create benefits such as privacy. Films also can be specified to provide solar and UV protection, which can help manage a building's utility costs and improve sustainability.

What to know about buying security window film

Understanding the basics of buying and installing can help you make more informed product decisions with your clients and stakeholders.

"It's very important to understand two things before you enter into a retrofit project: 1) What it is you want to accomplish, and 2) what kind of a glazing system you currently have because there's different scenarios that can be played out with different films," says Randy Garcia, Regional Technical Specialist, Avery Dennison. Those factors impact the type of film that offers the best solution, he adds.

Use due diligence when it comes to selecting a supplier. Generally, there are two options for buying films, either through a company that private labels the product, or directly from the manufacturer. Working directly with a manufacturer such as Avery Dennison provides some important advantages.

1. You have access to proper documentation regarding third party testing and validation of the product and its performance.
2. A manufacturer provides information on recommended installers who specialize in safety and security window films.
3. A manufacturer tends to have more robust technical support capabilities, including in-person assistance through the design specification and installation stages of a project.

Beware of "bulletproof" claims. Bulletproof is not a phrase that is used by any of the manufacturers of true ballistic glass. The appropriate term used in the industry is "bullet resistant." When purchasing ballistic glass, the IWFA recommends looking at the specification related to ballistic testing and comparing that to your expected risk.

What is the most effective way to know that what you are buying is legitimate? All window film manufacturers have their products tested by independent testing agencies to ensure that it meets a specific standard test. This testing should be conducted by an independent third party at accredited test facilities.

- You can find the certification associated with each product on the spec database, such as MasterSpec®, Arcat®, Sweets Product Database, and others.
- Look for manufacturers that conduct accredited third-party testing.
- If working with a private labeler, ask to see a certificate of accredited testing.
- Be wary of any supplier who refuses or is reluctant to supply testing documentation, or as previously mentioned, claims to offer "bulletproof" films.

What to know about installation, inspection, and third-party validation

How films are installed can have a lasting impact on their performance. There are potential warranty and liability implications for using an installer who is not a specialist. "Installation of window film is not a DIY job for a non-professional," says Garcia. "It's also not a job for a generalist who handles other types of architectural films, such as decorative films or automotive films.

The most typical installation is daylight installation. In other words, the film is installed only on the surface of the glass that you can physically see and touch when you walk up to the window. An installer of safety window films should be trained by the manufacturer on proper installation techniques. For example, a properly trained installer will be aware that safety films tend to be thicker and a bit more challenging to handle, trim and squeegee as it's important that all water used during the installation process is removed.

- Films must be installed according to the manufacturer's guidelines, which enables the installation to align with various certification standards.
- Because these films have a thicker adhesive layer, they do require time to cure, and the installer must take care not to disturb it during that period. The installer also should educate the building owner or the project manager of this requirement.
- Certification standards require having the film inspected throughout the installation process of cleaning, installing, and curing of the film.

Key takeaways

- There's a growing interest in security window film solutions that is motivated by current events ranging from extreme weather to vandalism and crime.
- While OEM safety glass is an option, window safety and security films are a more cost-effective solution for retrofits. Window films also can offer additional benefits, such as privacy, solar protection, or enhanced building aesthetics.
- Use due diligence when purchasing film and hiring an experienced installer. Working directly with the window film manufacturer will often yield the best results.
- Make sure that window film product is designed, specified, and installed according to the intent of the designer.
- Manufacturers and installers should follow established protocols when testing, validation, and inspection is required.

Avery Dennison is a leading global manufacturer and supplier of pressure-sensitive adhesive products, which includes window films in a wide variety of solutions for markets including architectural, automotive, signage, and transportation. Its architectural window film applied solutions include interior safety, exterior safety, and surface protection, as well as solar control films and universal safety and service protection for things like anti-graffiti.

AUTHOR
Beth Mattison-Teig | beth@crewriting.com
Freelance Writer & Editor