

## ENERGY CONSERVATION-

By Peter Davey, American Window Film, Inc.

## 3M<sup>TM</sup> WINDOW FILMS... On the Short List of **Energy Conservation Products**

nsulation, energy-saving light bulbs, automatic thermostats and energy efficient HVAC equipment are products that quickly come to mind when considering shoring up our buildings against unnecessary energy consumption. Window film, a product that insulates the greatest source of heat gain and loss in any building -- its windows -was once overlooked but is now a priority on the short list. Windows are the environmental and security Achilles' heal of any building. A quality insulating window film retrofit by an experienced installer will reduce the flow of energy in and out of windows, save substantially on heating and cooling expense, and improve safety and security.

Specifically designed for energy conservation, Low-E (emissivity) window films can reduce heat loss by up to 30% and air conditioning costs by blocking over 70% of the sun's heat. Patented construction of these films enable their metal coating to reduce the amount of solar heat entering a room in warmer months and reflect more of the interior heat back into a room in colder months. By reducing heat gain and loss, personal comfort is improved and reductions in drafts and temperature fluctuations can generate considerable savings on utilities expense. As a 3M™ Window Films Authorized Dealer, we have access to sophisticated software that projects energy cost savings. For large commercial clients, we're able to provide a comprehensive energy analysis that includes return-on-investment projections. Property and facilities managers are taking note that compared to window replacement, an inexpensive application of window film can pay for itself in short order with the energy cost savings it provides!

There are also series of films specifically manufactured to improve safety and security. By holding glass in place when breakage occurs due to high winds.



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severe weather, bomb blasts or vandalism, security films help mitigate the damage and injuries that can result. At tradeshows, I have demonstrated security films' strength by swinging a crow bar at plates of glass with applied security film. It is very impressive. The glass may break, but it stays in tact. Clearly, without applied film, an ordinary pane of glass would shatter and fly like daggers. By holding glass in place, the film continues to protect property from the elements in the aftermath of storms, vandalism or blasts.

3M Company began the history of window film in 1966 when a patent application was granted for a metalized solar control window film. There are so many films on the market that choice has become a challenge. Along with energy conservation and security there are films manufactured to reduce fading of fabrics and furnishings, reduce glare, and improve a building's overall aesthetics. Some 3M™ Window Films provide substantial enough UV protection to justify recommendation by the Skin Cancer Foundation. 3M Company now manufactures a Prestige series of films that allows light to be fully transmitted. These optically clear, non-metallic window films minimize reflectivity. Since metallic films can interfere with cell phone and WiFi transmissions, nonmetallic films offer an alternative.

When you decide to invest, note the number of years the manufacturer has been in the business of window film. Naturally, the more a particular film has been applied in the field, the more reliable the data for performance. Choose an ISO 9002 certified facility and a manufacturer committed to investment in research and development. Verify that you are working with a manufacturer's authorized dealer. An authorized dealer will be happy to have you check with their distributor or manufacturer for confirmation of their status as a dealer. An installation by a manufacturer's authorized dealer that employs professionally trained installers will assure quality work and the security of a manufacturer's warranty.

A manufacturer that uses its own adhesives is a real plus. Window film is only as good as its adhesive. A bad adhesive will produce bubbling and blistering -- distortions created from thermal cycling that can result in seal failures. You will want to be assured of lifelong optical clarity, a characteristic of good adhesive.

With so many factors contributing to the need for energy conservation and security, it seems foolish not to consider the purchase of insulating and/or security window film...products that will pay for themselves over time with the dollars saved in utilities expense. It will be well worth a few minutes of your time to talk with a professional window film dealer. An assessment of your concerns and your building's particular specifications and can be addressed quickly by those who have the knowledge, experience and the product that has proven itself in the field.

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