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ENERGY CONSERVATION

By Peter Davey, American Window Film, Inc.

A BARRIER AGAINST HEAT LOSS AND HEAT GAIN THROUGH WINDOWS:

3M™ Scotchtint™ Plus All Season Window Films

Any opening in a building's envelope provides opportunity for heat loss or gain. Windows are the largest openings in that envelope. Since hot air moves from warmer to colder areas, heat generated in your building in winter months flies through your toasty office and out your windows. Conversely, during the hot dog days of summer, outdoor heat enters through your windows. As Emeril might say, "BAMM!" Your HVAC equipment just "kicked up a few notches" and your utilities expense along with it. An installation of 3M™ Scotchtint™ Plus All Season Window Films work like insulation on windows creating a barrier that helps reduce heat loss and gain.

There is a variety of insulating (Low-E) window films on the market. 3M Company manufactures a series of these films, 3M™ Scotchtint™ Plus All Season Films that offer increased performance against cold weather heat loss in addition to solar performance (heat gain reduction) during warmer months. Featuring Wavelength-Selective metals which block more of the solar spectrum than conventional metals, these Low-E (emissivity) window films can reduce heat loss by up to 30 percent and can reduce air conditioning costs by blocking up to 73 percent of the sun's heat. The patented construction of these films enable the metal coating to reflect more of the interior room heat back into the room. Personal comfort is improved and the reduction in drafts and fluctuations in temperature can generate considerable savings on fuel expense.

If your building is equipped with Low-E windows already, 3M™ Scotchtint™ Plus All Season Films can enhance their performance. A well made Low-E window can block up to 90 percent of UV radiation. The same window with 3M™ Scotchtint™ or Scotchshield™ Films installed will block more than 99 percent of the UV radiation that contributes to heat loss and gain. In addition, by hold-



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ing broken shards of glass in place, 3M™ Scotchshield™ Films will improve the safety and security of Low-E windows that do not typically protect against broken or flying glass unless they are tempered. Also, Low-E windows do not ordinarily reduce glare since most have a visible light transmission greater than 70 percent. 3M™ Scotchtint™ and Scotchshield™ films can reduce glare up to 80 percent depending on the particular film.

A \$21 billion diversified technology company and an ISO9002 certified facility, 3M is the only window film manufacturer that produces their own raw materials such as polyesters, metals, scratch-resistant coatings and adhesives. Window film is only as good as its adhesive. A bad adhesive will produce bubbling and blistering – distortions created by thermal cycling that can ultimately result in seal failure. Unlike others, 3M's ultraviolet inhibitors are included directly in their adhesive. This ensures lifelong clarity and reduces UV degradation, thus providing long-lasting protection from fading of fabrics and furnishings. Their patented micro-layered window film construction has proven itself in the field.

3M's spirit of innovation remains strong as they re-invent window films for the 21st century with the introduction of their new series of Prestige

Window Films. These films reject up to 97% of the Infrared without using metals – a critical advantage over 3M Company's window film competitors. Metals can corrode over time in moist conditions and can interfere with cell phone signals and Wi-Fi transmissions. 3M™ Prestige Window Films unconditionally guaranty against corrosion. They offer high optical clarity, low reflectivity and incomparable performance. They reflect and absorb 99.9% of the UV light that fades fine furnishings, fabrics and works of art and they do this by aligning more than 200 layers of polymers in a total thickness that is less than 1/2 the thickness of one 3M™ Post-It™ Note.

3M Company uses comprehensive testing facilities to assure quality and performance. Tests performed on 3M™ Window Films are published by the American Society for Testing and Materials. 3M™ Scotchtint™ Window Films meet the requirements for a Class A Interior Finish for Building Materials for both Flame Spread Index and Smoke Developed Values per ASTM E-84.

As a 3M™ Prestige Window Films Authorized Dealer, American Window Film, Inc. is one of a select few window film dealers in the country recognized for their ability to offer quality work, extensive product knowledge and the highest standards of customer service. With so many window films on the market, it's wise to consider experience, reputation and longevity in the field. The next time something gets "kicked up a notch", let it be from hot sauce and not from heat gain. Insulate your windows with 3M™ Scotchtint™ Plus All Season Window Films.

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