

**3M**

Scotchshield™ Ultra Safety & Security Films.



Proven Blast Protection For Windows.



With the use of 3M Scotchshield film, panels of glass which have been blown completely out of the frame are typically held intact.

(opposite page)  
Even buildings blocks  
away from a bomb  
blast are susceptible  
to extensive window  
damage.

In the event of a bombing or explosion, a building's Achilles heel is typically its glazed surfaces. Shattered into razor sharp fragments and propelled at high speeds, window and door glass can cause severe injury to the building's occupants. In addition, shattered glazing allows blast over-pressure to enter the building. This, too, poses a serious threat to the life safety of those inside.

Thankfully, extensive testing has proven that the threat of injury due to flying glass can be greatly reduced with the use of 3M<sup>®</sup> Scotchshield<sup>™</sup> Ultra Safety & Security Window Films. These tough, transparent films consist of multiple, microthin polyester layers that work to hold shattered glazing together. So there are fewer fragments and debris capable of inflicting harm.

## Practically Invisible, Yet Tough As Nails.

3M Scotchshield Ultra Security Films greatly enhance the protective capability of glass in a very unobtrusive manner. These thin, pliable films can be applied quickly and easily over existing windows. Over the course of years, they maintain a high level of optical clarity, even during extreme conditions.

Unlike thick, single layer films that tend to be stiff and boardy, 3M Scotchshield Ultra Security Films use microthin, alternating layers that are laminated together to enhance tensile strength and elongation. This patented film construction delivers superior performance over standard polyester in blast and impact mitigation due to its ability to absorb shock.



Extensive testing is conducted to ensure that 3M™ Scotchshield™ Ultra Security Film will substantially reduce the potential for damage and injuries from fragmented glass.

Tough, penetration resistant 3M Scotchshield Ultra Security Film can deter "smash and grab" theft by holding glass in place.

## Tested And Proven Around The World.

Over the past 20 years, 3M Scotchshield films have been blast tested by various private and government agencies from Australia to England. Windows treated with these films have been subjected to a variety of close range explosive charges, including TNT, pipe bombs, molotov cocktails and more.

In test after test, the protective film has demonstrated the ability to retain shattered glass, even when the entire window has been blown out of its frame. These tests have concluded that by reducing the effects of blast on glass and, in particular, by greatly reducing the amount and velocity of projected glass fragments, 3M Scotchshield Ultra Security Films significantly reduce the potential of glass cut injuries.

## It Pays To Improve Safety And Security.

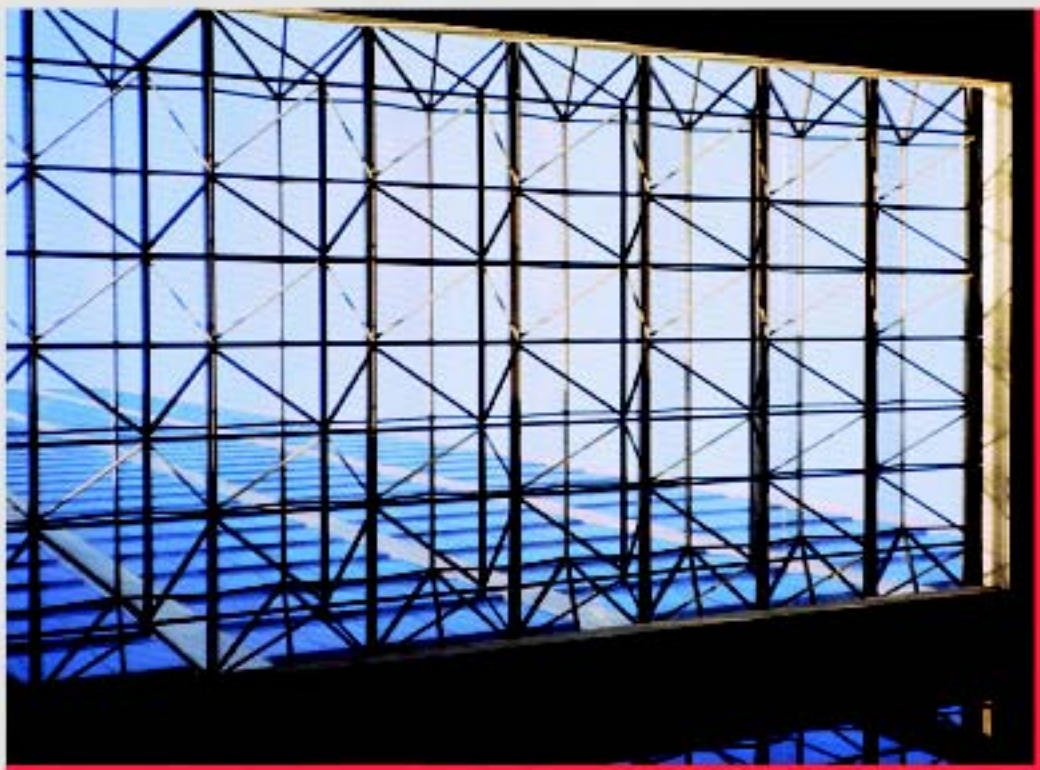
In this day and age, it seems no building is immune to the threat of terrorism. For this reason, owners and managers of buildings need to be more aware than ever of their responsibilities to facility occupants. There can be little argument



that providing a safe and secure environment is at the top of the list.

While heightened security cannot always prevent a building from becoming the target of a blast, precautionary measures such as the installation of 3M Scotchshield Ultra Security Film can work to minimize the resulting damage. By holding glass intact, the film greatly reduces the contamination of glass fragments into carpets and furnishings, as well as computers and equipment. This can reduce losses, make cleanup easier and result in quicker resumption of operations.

In the unfortunate event that injuries should result from a blast, the installation of 3M Scotchshield Ultra Security Film can also demonstrate that management exercised due diligence in providing defensive measures to enhance occupant safety.



3M™ Scotchshield™ Ultra Security Film can be applied to existing glazing for additional safety, security and energy efficiency.

## The Benefits Go Well Beyond Blast Protection.

In addition to reducing injury and damage due to flying glass, 3M Scotchshield Ultra Security Films offer other important benefits. The resistance of the films to penetration and tearing helps to prevent vandalism and theft. Breaking and entering through shattered windows is more difficult when the glass is held together by the film.

This ability to hold shattered glass in place also provides increased protection from wind storms and blowing debris, and can act as a barrier to seal out most rain and water.

In addition, 3M Scotchshield Ultra Security Films have been successfully evaluated for compliance as a Safety Glazing Material with the 1996 BOCA National Building Codes.\*

Some 3M Scotchshield Ultra Security Films can even improve comfort by reducing solar heat gain and temperature imbalances. This helps save energy and cut air conditioning costs. What's more, all Scotchshield films filter out up to 99%

of the sun's damaging ultraviolet rays, significantly slowing the aging and fading of your furniture, woodwork, floor coverings and window treatments.

## Nobody Stands Behind Their Films Like 3M.

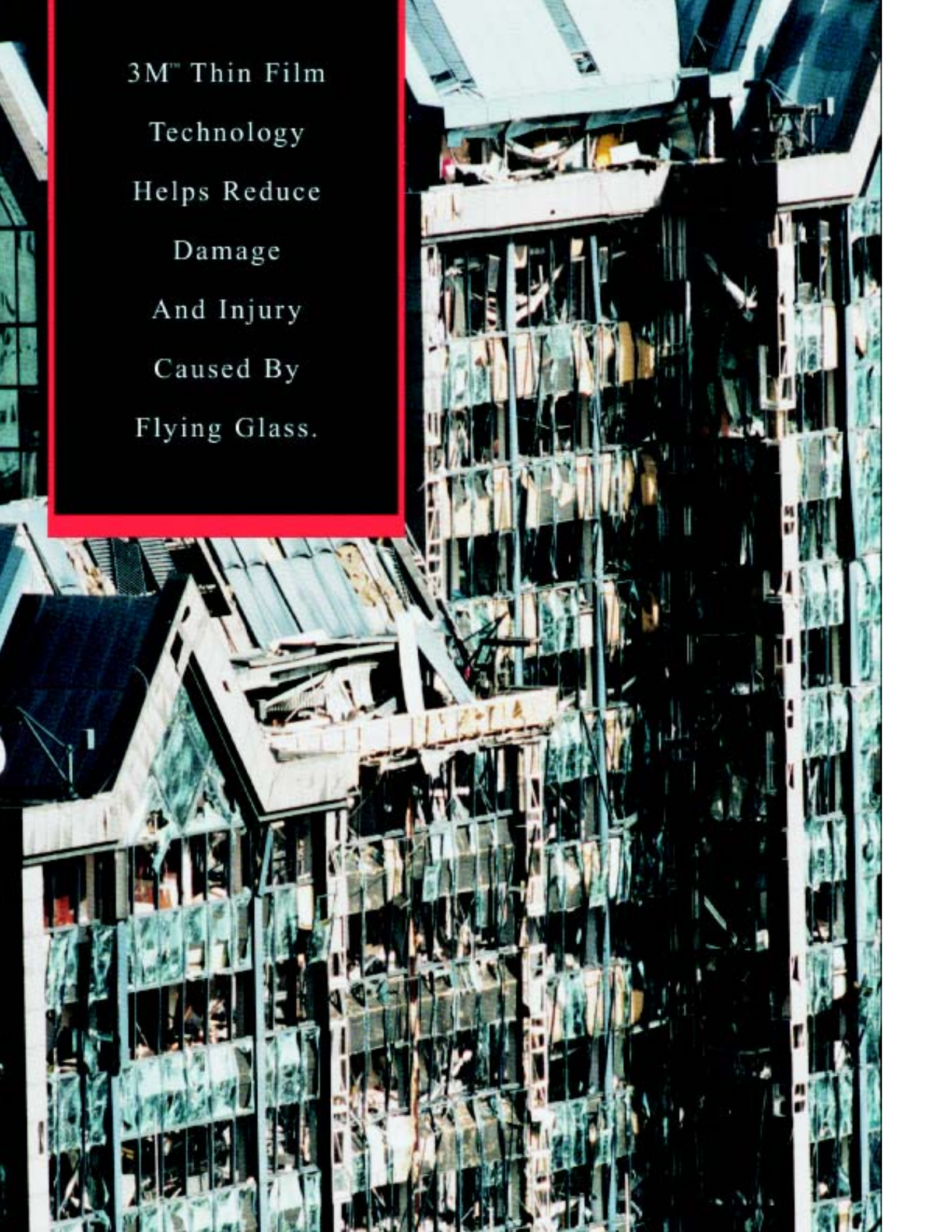
3M window films are your best choice for performance and value. Millions of square feet of 3M window films have been installed all around the world. And many millions of dollars have been invested in film research and development to ensure that these products offer uncompromising quality.

When you buy 3M Scotchshield Ultra Security Film, you're backed by the resources of one of the largest and most respected companies in the world. These films are sold and installed exclusively by professionally trained and authorized 3M dealers. The films are manufactured in an ISO 9002 certified facility. Additionally, 3M covers the film and workmanship with one of the best warranties you'll ever find. So both you and your building are well protected.

**3M** Innovation

\* See BOCA Evaluation Services Research Report 94-41

3M™ Thin Film  
Technology  
Helps Reduce  
Damage  
And Injury  
Caused By  
Flying Glass.



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**Important Notice to Purchaser:** LIMITATION OF REMEDIES AND LIABILITY: IF THE 3M PRODUCT IS PROVED TO BE DEFECTIVE, THE EXCLUSIVE REMEDY, AT 3M'S OPTION, SHALL BE TO REFUND THE PURCHASE PRICE OR REPAIR OR REPLACE THE DEFECTIVE 3M PRODUCT. 3M SHALL NOT OTHERWISE BE LIABLE FOR LOSS OR DAMAGES, WHETHER DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL (INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS, INVESTMENT, GOODWILL OR BUSINESS OPPORTUNITY), REGARDLESS OF THE LEGAL THEORY ASSERTED, INCLUDING NEGLIGENCE, CONTRACT, WARRANTY, OR STRICT LIABILITY.



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