

MAJOR INDUSTRIES

Guardian 275[®] Translucent Daylighting Panels

DON'T HIDE BEHIND STEEL & CONCRETE

Natural light and security
unite in Major Industries'
Guardian 275[®] Translucent
Daylighting Panels –
strong protection against
terrorist attack.

24/7 BLAST PROTECTION



ANTI-TERRORISM APPROVED*

*Meets or exceeds anti-terrorism performance requirements

www.majorskylights.com

Explosives have become **the weapon of choice for terrorists**

The force of a terrorist blast can wreak havoc on standard building materials, creating a flying debris field that can cause a variety of lacerations and other injuries to your building's occupants. Less flying debris equals less chance of injury. **Guardian 275® panels are designed to "flex" with the force of an explosive blast** while remaining intact and secure in the opening, adding a level of security above and beyond traditional glazing materials.



Tested, Abused – and Performance Verified

During a series of tests conducted by Baker Engineering and Risk Consultants, Inc., a world-renowned engineering and testing firm, a variety of **Guardian 275®** panels were secured to a large shock tube, a test device that creates a large pressure wave at a specific applied impulse (an applied impulse, measured in psi-msec, is equal to the net force on the panel times the time period over which this force is applied).

Translucent daylighting is the secure solution

PRE-TEST	POST-TEST
	
Testing clearly shows that Guardian 275® panels remain intact during severe blast loads.	
	
Guardian 275® panel configurations can be engineered to meet specific blast requirements.	
	
Gain glare-free natural light without sacrificing personal security.	

Guardian 275® panel configurations faced-off against a machine-generated blast pressure range of 5 to 6 psi with applied impulses between 40 and 69 psi-msec, a force that in the real-world could snap a wooden utility pole. A maximum pressure of 10 psi, with an applied impulse of 90 psi-msec, was also generated in order to test a medium level blast load that can cause significant structural damage and serious health risks.

Testing conducted in the 5 to 6 psi range, chosen to examine commonly specified blast loads for anti-terrorism protection of buildings in the United States, showed that **Guardian 275®** panels resisted the applied loads over a range of impulses and retained their structural integrity. **Guardian 275®** panels, designed to "flex" with the force of a blast, created no flying debris and were found to pose no threat to building occupants. Finally, in the ultimate 10 psi, 90 psi-msec test, the **Guardian 275®** panel once again "flexed" with this maximum blast and remained completely intact.

The results are clear – **Guardian 275®** panels, after standing up against extreme blast loads, **meet or exceed anti-terrorism performance requirements**, providing your occupants with the safety and security they deserve.



Major Industries' translucent daylighting system shields occupants from a direct line of sight. Potential terrorists observing from busy streets and other uncontrolled locations are offered few clues to the activity within occupied spaces while interior spaces are enhanced with glare-free, energy-saving daylighting.

THE RESULTS ARE CLEAR

Guardian 275® panels, after going through the most punishing blast tests in the translucent daylighting industry, meet or exceed the following related performance requirements:

- 1) **Department of Defense (DoD) Minimum Anti-terrorism Standards for Buildings (UFC 4-010-01) for conventional building standoff distances and ISC Security Design Criteria Level C loading**
- 2) **US General Services Administration (GSA) Standard Test Method for Glazing and Window Systems Subject to Dynamic Overpressure Loadings - Condition "1", Hazard Level "None"**
- 3) **ASTM F 1642-04 Standard Test Method for Glazing and Glazing Systems Subject to Airblast Loading**
- 4) **AAMA 510-06 Voluntary Specification Guide for Blast Hazard Mitigation for Fenestration Systems**



Outstanding Blast Protection... **Without Sacrifice**

Guardian 275® Translucent Daylighting Panels can be configured to your desired level of blast protection. Our experienced engineers will take your requirements and, using a combination of the industry's most accepted and advanced blast load analysis programs and real-world test results, design a system that will meet your exact specifications.

Guardian 275® panels have established a new performance standard for security and light quality in the daylighting industry. These features, along with their extreme weather-resistance and unmatched color stability, offer creative design possibilities and potential LEED® credit contributions beyond traditional blast-resistant glazing materials. Our years of experience and long list of satisfied customers, along with recent anti-terrorism blast and weathering tests, prove that we're the right choice for your next project.



Guardian 275[®]

Translucent Daylighting Panels

For more information about our blast test results, or to find out how our skilled engineers and blast analysis can turn your toughest design challenges into a strong, eye-catching, energy-saving solution, visit us online at www.majorskylights.com, call 888-759-2678 or fax us at 715-848-3336.



Major Industries provides nationwide continuing education to Architects with its certified "box lunch" training sessions.



7120 Stewart Avenue
Wausau, WI 54401
Toll free: (888) 759-2678
Voice: (715) 842-4616
Fax: (715) 848-3336

Web: www.majorskylights.com
Email: info@majorskylights.com