



BLAST PROTECTION

& EXPLOSION RELIEF SYSTEMS



CREATING ENVIRONMENTS WHERE PEOPLE CAN SHINE™



PROTECTION WHEN YOU NEED IT

NATURAL LIGHT WHEN YOU DON'T



The force of a terrorist blast can wreak havoc on standard building materials, creating a flying debris field that could 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® systems 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).

Guardian 275® 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 the Guardian 275® systems resisted the applied loads over a range of impulses and retained their structural integrity. The panels 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® system once again "flexed" with this maximum blast and remained completely intact.



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



Customized blast protection...

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STANDS UP TO THE TOUGHEST TESTS

Guardian 275[®] blast systems, after going through the most punishing tests in the translucent daylighting industry, meet or exceed the following 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

CUSTOM BLAST PROTECTION THAT WORKS

Guardian 275[®] translucent systems 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[®] blast systems establish a new performance standard for security and light quality in the daylighting industry. These features, along with extreme weather-resistance and unmatched color stability, offer creative design possibilities and potential LEED[®] credit contribution beyond traditional blast-resistant glazing materials.

EXPLOSION AND PRESSURE RELIEF SYSTEMS



For buildings that are prone to damage from internal explosions such as chemical facilities or R&D laboratories, Guardian 275[®] systems can also be fitted with third-party certified fasteners that "relieve" sudden pressure surges by releasing the panels before structural damage occurs. Stainless steel safety lanyards keep the panels attached to the framing, minimizing the risk to people and property.

Not sure what you need for your project? Give our team a call and find out more about our wide range of specialty daylighting solutions.

... that provides light and safety in one eye-catching package.

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ABOUT US

Major Industries engineers and manufactures custom skylights and translucent wall systems that fit your needs - and your budget. Since 1980, we've provided tough, dependable and cost-effective daylighting systems – all backed by industry-best warranties and an excellent on-time delivery record. From light-controlling translucent panel systems that eliminate glare and block damaging UV, to glass skylights and unique mixed glazed systems, our daylighting solutions let natural light in while keeping the elements out.

Your decision to use Major Industries is a sign of trust we take seriously. Let our knowledgeable sales team and in-house engineering capabilities help you conquer your toughest design challenges and create the optimal solution for your next project.

For more information, visit us online
@ www.majorskylights.com.



Major Industries provides nationwide continuing education to Architects with its training sessions. Contact us today to find out more!



Major Industries, Inc. reserves the right to improve products without notice as the result of ongoing R&D and/or third-party compliance.



SKYLIGHTS, CANOPIES & TRANSLUCENT WALL SYSTEMS

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