

Laminated polycarbonate sheet provides high level security

PLASTICS IN
SECURITY
AND SAFETY

by Sheffield Plastics, Inc., A Bayer MaterialScience Company

Ensuring optimum clarity performance, laminated polycarbonate sheet offers unsurpassed protection from ballistic and physical attack in bullet-resisting and containment glazing applications.

A new generation of laminates, featuring a hard-coat technology, assures exceptional resistance to physical attack, abrasion and UV degradation. With its unique multilayer construction, the polycarbonate laminates can withstand both physical attack and gunfire from high powered hand guns. Multiple levels of protection are provided ranging from certified containment glazing to Level 3 bullet-resistant material. The laminates will not "spider web" or spall. This allows for complete vision, which can be critical for appropriate response in the event of an attack.

Security applications

Increased violent crime, readily available weapons and larger glazed areas in several applications have created a need for higher performance security glazing materials. Polycarbonate laminates are being used increasingly for employee protection in a variety of applications such as:

- Jails/prisons
- Detention centers
- Correctional facilities
- Psychiatric hospitals
- Government facilities
- Physical attack areas
- Schools and institutions
- 24-hour gas stations and convenience stores
- Drive-up windows
- Train/bus glazing
- Kiosks
- Banks

Polycarbonate laminates are also manufactured to demanding specifications for long-lasting performance when the glazing materials are exposed to graffiti, vandalism and chemical attack. The material can withstand punishing abuse as it maintains superior clarity and protection when subjected to repeated contact from cyclical cleaning and vandalism.

Case story

Bullet Guard Corporation specializes in bullet resistant armoring for a wide variety of industries including government, military, banking, healthcare, retail, fast food, police and fire departments, and post offices.

According to Bullet Guard President Karlin Lynch, "Initially, adding bullet-resistant glazing and armoring may seem simple, and there are those who have tried to make it appear no different from other building materials. However, in actuality, the bullet resistant field is very complex. It is extremely important to specify the right materials and apply them in the proper manner to achieve the desired level of protection, without alienating customers."



MAKROLON® HYGARD® polycarbonate glazing used by Bullet Guard Corporation.

Bullet Guard uses laminated polycarbonate sheet available in six levels of protection, ranging from containment rated sheet to UL Level 3 bullet resistant material. UL Level 3 materials are capable of withstanding multiple rounds from high-powered handguns.

According to Lynch, "We like laminated polycarbonate sheet because it is lightweight and easy to fabricate for both remodel and new applications, and the proprietary hard coated surfaces offer resistance to abrasion, UV degradation, delamination and discoloration."

Many employers are fearful of customer rejection of bullet resisting barriers. But customers are increasingly asking for this protection because they know they are safer in a store with visible security.

Summary

Polycarbonate laminates are ideal for security, forced entry and bullet resistant applications. Offering top industry containment, ballistics and UL ratings, they are the ultimate choice for your security and containment glazing applications. ■

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For proven resistance to physical and ballistic attack, security installations such as detention and correctional centers use MAKROLON® HYGARD® from Sheffield Plastics, Inc., A Bayer MaterialScience Company. While no material can withstand physical attack indefinitely, MAKROLON HYGARD laminates offer sufficient time in riot situations to protect employees while rescue operations are underway.