



SECURITY MATERIAL SOLUTIONS

Polycarbonate

Piedmont Plastics offers industry-leading material solutions for a wide range of security applications. Offering a full line of monolithic, containment, forced entry, and ballistic rated polycarbonate products, Piedmont Plastics is committed to supplying high-quality glazing materials for enhanced security protection.

Polycarbonate sheet offers a sleek, glass-like appearance while serving as a strong first line of defense against forced or unlawful entry and attack. These durable products help delay or prevent intrusion, providing critical time for law enforcement response. Independently tested by accredited laboratories, polycarbonate sheet features an abrasion-resistant hard coat that delivers outstanding resistance against chemical attack.



Polycarbonate Advantage vs Glass and Glass-Clad Products:

- Reduced Weight: Approximately 50% lighter than glass laminate of the same thickness
- Will not spall, spider web or white-out under attack, maintaining a clear line of sight to provide an extra level of security
- Polycarbonate products feature a hard coat that resists abrasion, chemical, and graffiti attack
- Offers product warranty against yellowing, loss of light transmission, and breakage



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 **Piedmont Plastics®**



SECURITY MATERIALS

PRODUCT DATA

SECURITY TESTS & PRODUCT RATINGS OVERVIEW

Forced Entry Test, Ratings						Ballistics Tests, Ratings				
Product	Gauge in, mm	Lbs/Sq kg/sqm	UL 972	"ASTM F1233 Class Achieved"	"ASTM F1915 Security Grade"	"HPW TP-0500 Level"	"HPW TP-0500 Level"	"UL 752 Level"	"NIJ 0108 Level"	
AR	0.500, 12.7	3.12/15.2	X	2.0 BP* / 1.4 C*	3	I				
CG 375	0.390, 9.9	2.4/ 11.7	X	2.8 BP / 1.4 C	3	I				
CG 500	0.522, 13.26	5.22/ 25.5	X	3.2 BP / 1.4 C	1	I	A			
CG 750	0.780, 19.8	4.9/ 24	X	3.5 BP	1	II	B			
BR 750	0.780, 19.8	5.1/ 24	X				B	1		
BR 1000	1.05, 31.7	6.5/ 31.7	X	5 BP / 2.4 C	1	IV		2		
BR 1250	1.30, 33	8.1, 39.5	X	BP / 2.5 C	1	IV		3	II / IIIA	
MS 1250	1.30, 33	8.1, 39.5	X				6			

* BP - Body Passage; C - Contraband

As with any security glazing, performance of HYGARD® products is based on use in appropriate framing systems.

Typical regulatory code compliance and certifications	Applicable products
ANSI Z97.1 American National Standard for Safety Glazing Materials Used in Buildings – Safety Performance Specifications and Methods of Test, Class A, Unlimited	AR / 15 / GP / OP
CPSC 16 CFR 1201 Category I and Category II: Safety Standard for Architectural Glazing Materials	AR / 15 / GP / OP
Florida Building Code High Velocity Hurricane Zone Classified Miami-Dade	AR / 15
ICC-ES Evaluation Report #ESR-2728	AR / 15
Combustibility Class CC1	AR / 15 / GP / OP
UL 972 Burglary Resistant File #BP2126, UL 972 Smash and Grab	AR / 15 / GP
UL 746C: Suitability for Outdoor Use, UL File #E87887	AR / 15
AAMA 501.8: Resistance to Human Impact of Windows Systems Intended for Use in Psychiatric Applications	AR / 15



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