



PALSHIELD™

Containment and Bullet Resistant Glazing



Overview

The PALSHIELD product line offers various levels of ballistics and forced entry protection.

Due to its layered structure, the laminate withstands both physical attack and multi-shot assault, absorbing the entire impact energy without shattering or spalling.

PALSHIELD features an abrasion resistant coating, which ensures long-term clarity for applications in accessible areas.

Main Benefits

- No spall design
- Abrasion resistant surface
- Complies with various ballistic and forced entry standards (*see table on reverse side*)
- Low weight: nearly half the weight of glass-equivalent
- Clear - good optical quality
- Colors: clear, bronze, grey

Typical Applications

- Security glazing in banks and government facilities
- Public institutions
- Gas stations and convenience stores
- Drive-up windows
- Ticket booths and kiosks
- Prisons and detention centers



www.palram.com



A Growing Line of Products

PALSHIELD is engineered to meet a variety of forced entry and ballistic test standards. Palram's Palshield line of products is destined to expand over time. The information listed below represents the Palram products that meet or exceed the various testing standards at the time of this printing. Please visit PalramAmericas.com/Palshield for the most up-to-date information and test approvals.

Regulatory Code Compliance Certification

Organization	Standard	Classification
ANSI	Z97.1-09	Approved Impact and Weathering
CPSC	16 CFR 1201	Category I or II

Manufacturer's Limited Warranty

PALSHIELD offers a 7-Year manufacturer's limited warranty against coating failure, structural delamination, yellowing, and loss of light transmittance. Visit www.PalramAmericas.com/Palshield for complete warranty and technical details.

Forced Entry Products	Protection Level	Thickness	Plies	Lbs./FT ²	Light Transmission
PALSHIELD FE 375	ASTM F1915-05 - Security Grade Level 2	.375"	2	2.4	86%
PALSHIELD FE 500	ASTM F1915-05 - Security Grade Level 2 HPW 0500.03 Level A ballistics (.38 special)	.500"	3	3.3	83%
PALSHIELD FE 750	ASTM F1915-05 - Security Grade Level 1 HTW 0500.03 Level B Ballistics (9mm)	.750"	3	4.9	77%

Ballistic Products	Protection Level	Thickness	Plies	Lbs./FT ²	Light Transmission
PALSHIELD UL1-750*	UL 752 Level 1 [†] – 9mm 3 shots	.750"	3	4.9	88%
PALSHIELD UL2-1000	UL 752 Level 2 [†] – .357 3 shots	1.0"	4	6.5	72%
PALSHIELD UL3-1250	UL 752 Level 3 [†] – .44 Mag 3 shots ASTM F1915-05 Security Grade 1 ASTM 1233-08 Class V (Body)	1.25"	4	8.1	67%
PALSHIELD UL6-1250*	UL 752 Level 6 [†] – High Velocity 9mm 5 shots, Supplemental shotgun 1 shot	1.25"	4	8.1	78%

* Contains Acrylic † Tested by an accredited independent lab according to UL specs.

Testing Std. Reference	Standard and Year	Title / Description
ASTM	F1233-08	Standard Test Method for Security Glazing Materials and Systems
ASTM	F1915-05	Standard Test Method for Glazing for Detention Facilities
HP White	TP-0500-.03	Transparent Material for Use in Forced Entry or Containment Barriers
UL	752	Bullet Resistant Equipment

Typical Layer Detail

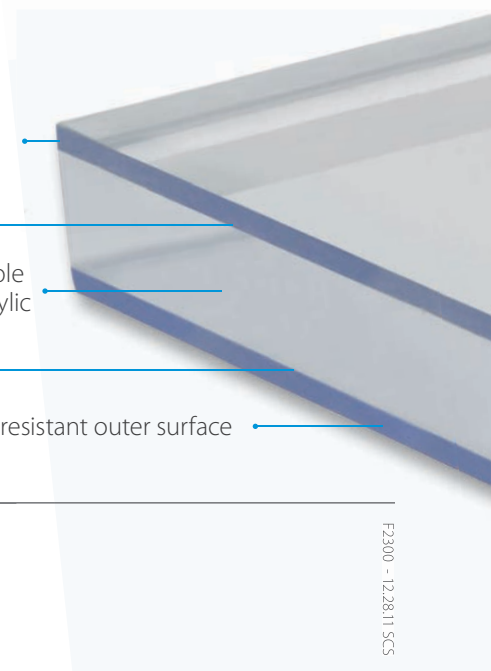
Polycarbonate with abrasion-resistant outer surface

Adhesive

Core made of single or multiple plies of polycarbonate, or acrylic

Adhesive

Polycarbonate with abrasion-resistant outer surface



PALRAM AMERICAS

9735 Commerce Circle
Kutztown, PA, 19530 USA
Tel: 800.999.9459
palramamericas@palram.com



Authorized Distributor

F2300 - 12.28.11 SCS

In as much as PALRAM Industries has no control over the use to which others may put the material, it does not guarantee that the same results as those described herein will be obtained. Each user of the material should make his own tests to determine the material's suitability for his own particular use. Statements concerning possible or suggested uses of the materials described herein are not to be construed as constituting a license under any PALRAM Industries patent covering such use or as recommendations for use of such materials in the infringement of any patent. PALRAM Industries or its distributors cannot be held responsible for any losses incurred through incorrect installation of the material. In accordance with our company policy of continual product development you are advised to check with your local PALRAM Industries supplier to ensure that you have obtained the most up to date information.

