

## ▶▶▶ Phoenicia - Products for Defensive Protection

### Ballistic-Resistant Glass

Protected glass that meets ballistic resistance levels 1 through 7 (see accompanying table).



Bullet resistant

### Forced Entry Resistant Glass

Deterring prolonged forced entry attempts, the glass meets threat levels as outlined in the accompanying table.



Forced entry resistant

### Blast-Resistant Glass

Resistant to explosive blast levels as outlined in the table. Blast-resistance is of paramount importance for glazing with anchoring materials suitable for absorbing the energy of the blast load.



Blast resistant

### Combined Protection Glass

Specialized protective glass can be produced in order to withstand a combined attack (ballistic, blast and forced entry) as defined by the customer.

### ▶ Bullet Resistant Glass

Class	Standard	Weapon caliber (mm)	Ammunition	Bullet weight	Bullet velocity	Nominal thickness	Weight
				gr	m/s	mm	Kg/m <sup>2</sup>
1.	UL level 6, BS-G0	9-19	9 mm Uzi & handgun	8.035	443	18-20	36-42
2.	UL level 3, Din-3	0.44	0.44 mag, Colt	15.5	458	25-29	55-62
3.	UL level 7, BS-R1	5.56-45	M-16, SA80	3.65	960	30-32	69-72
4.	BS-G3	7.62-39	AK-47-Kalashnikov	7.95	720	35-37	72-75
5.	UL level 8, BS-R2	7.62-51 (M80)	M-14 (NETO) standard dimensions	9.65	854	42-45	93-97
6.	NIJ-4	7.62-39 (AP)	AK-47	7.97	710	62-64	140-144
7.		7.62-51 (AP)	M14	9.91	850	85-90	190-198

For the desired architectural design, protective glass can be designed to integrate modular reflective glass units similar to sun guards.

### ▶ Forced Entry Resistant Glass

Class	Forced entry standard	Application	Thickness mm	Weight kg/m <sup>2</sup>	Endurance min
1.		Incidental burglar	11	22	2 up to 5
2.	HP Level 1	Amateur burglar	14-16	27-29	5 up to 10
3.	HP Level 2	Professional burglar with hand tools	18-20	30-32	15
4.	HP Level 3	Professional burglar with heavy hand tools	38-48	80-90	30 up to 60
5.	EVN1630	Professional burglar with electrical equipment	60-80	100-125	up to 30
6.	EVN1630	Professional burglar with tools including torching tools	85-105	160-180	up to 60

Phoenicia's defensive protection products are approved by the appropriate authorities.

### ▶ Blast Resistant Glass

Resistance Level	Maximum Pressure (PSI)	Average Impulse (PSI/m/sec)	Typical Size Opening	Trial Description
Low	4	24	Any size	20 Kg at distance of 25 m
Basic	16	76	Window 1x1m	60 Kg at distance of 18.5 m
High	39	135	Window 1x1m Fixed or kip opening	100 Kg at distance of 15 m
Very High	210	260	Fixed Window	100 Kg at distance of 8 m

Resistance Level	Type of Resistance	Product Description
Low	Layered glass or coating of 100µ	Replacing glazing or coating with protective covering of at least 100 µ
Basic	Specialized "ordinary-looking" window using layered glass and special design	For sealed-room shelter (APS) or similar
High	Fixed or kip exterior window, specially designed	Window meets "Improved Building" standards of Home Front Command
Very High	Specially designed window with specialized steel frame and ballistic-resistant glass	Specialized ballistic-resistant window

