

Will the Booth Protect Personnel from Small Arms Fire?

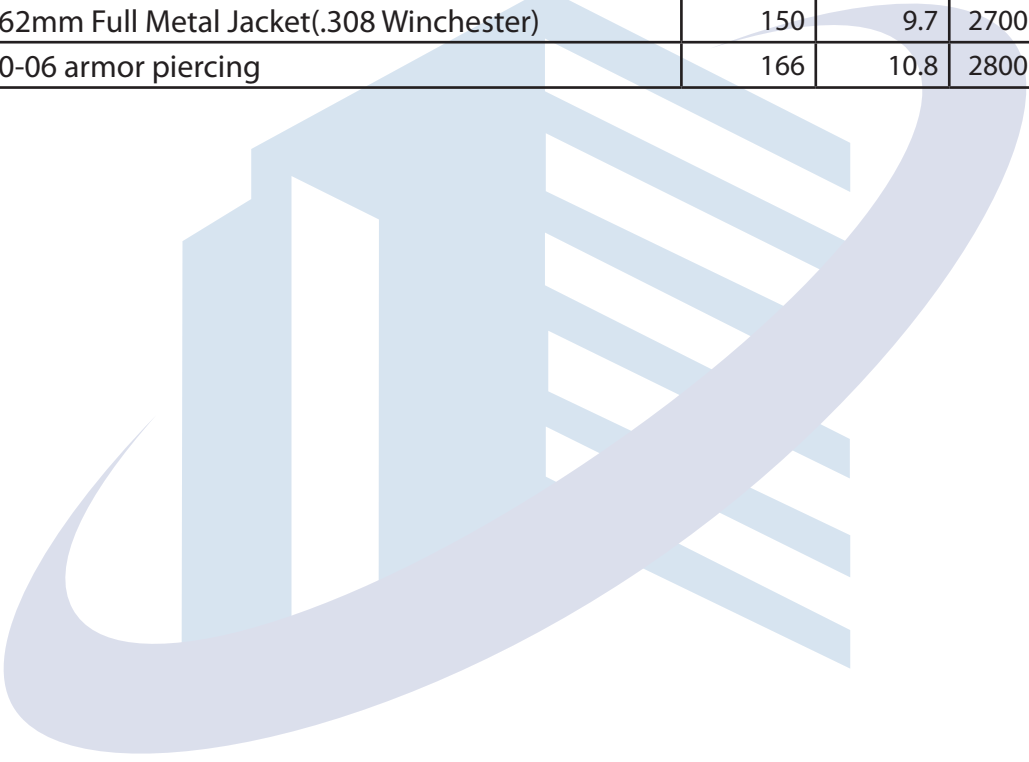
Architects, Engineers, Security Designers, and End Users need to understand the terminology associated with selecting an appropriate ballistic resistant rating to protect their vital assets. Ballistic threats are described in terms of ballistic standards developed for testing the resistance of building components to ballistic threats. These standards, including: caliber, weight, projectile composition, muzzle velocity of the round and number of impacts, provide criteria to evaluate the performance of materials or systems. They also define what constitutes failure of the building component.

UL 752 Ratings: Levels 1, 3, 5, and 8 are the most common found in the specifications defining guard booth, overwatch, gatehouse, and security office protections. Under UL 752, any product that is marketed as “bullet-resistant” must protect against complete ballistic penetration, passage of fragments of projectiles, or fragmentation of the protective material to the degree that injury would result to a person standing 18” directly behind the component during an attack.

NIJ 018.01 Ratings: This is the less common of the U.S. standards used. It is listed for comparative purposes. Under NIJ 018.01, any product that is marketed as “bullet-resistant” must protect against complete ballistic penetration, passage of fragments of projectiles, or fragmentation of the protective material to the degree that injury would result to a person standing 6” directly behind the component during an attack.

UL 752 Ratings of Bullet Resistant Materials						
Rating	Ammunition	Weight (grains)	Weight (grams)	Min (fps)	Max (fps)	Shots
Level 1	9mm Full Metal Copper Jacket with Lead Core	124	8.0	1175	1293	3
Level 2	.357 Magnum Jacketed Soft Point	158	10.2	1250	1375	3
Level 3	44 Magnum Lead Semi-Wadcutter Gas Checked	240	15.6	1350	1485	3
Level 4	.30-06 Caliber Rifle Lead Core Soft Point	180	11.7	2540	2794	1
Level 5	7.62mm Rifle Lead Core Full Metal Copper Jacket (.308 Caliber)	150	9.7	2750	3025	1
Level 6	9mm Full Metal Copper Jacket with Lead Core	124	8.0	1400	1540	5
Level 7	5.56mm Rifle Full Metal Copper Jacket with Lead Core (.223 Caliber)	55	3.56	3080	3383	5
Level 8	7.62mm Rifle Lead Core Full Metal Copper Jacket (.308 Caliber)	150	9.7	2750	3025	5
Shotgun	12-Gauge Rifled Lead Slug	1.0 oz	28.3	1585	1744	3
	12-Gauge 00 Buckshot (12 pellets)	1.5 oz	42	1200	1320	3

National Institute of Justice (NIJ) 018.01 Ratings of Bullet Resistant Materials						
Rating	Ammunition	Weight (grains)	Weight (grams)	Min (fps)	Max (fps)	Shots
Level I	.22 long rifle high velocity lead	40	2.6	-	-	5
	.38 special round nose	158	10.2	800	900	5
Level IIA	.357 Magnum Jacketed Soft Point	158	10.2	1200	1300	5
	9mm Full Metal Jacket	124	8.0	1050	1130	5
Level II	.357 Magnum Jacketed Soft Point	158	10.2	1345	1445	5
	9mm Full Metal Jacket	124	8.0	1135	1215	5
Level IIIA	44 Magnum Lead Semi-Wadcutter Gas Checked	240	15.5	1350	1450	5
	9mm Full Metal Jacket	124	8.0	1350	1450	5
Level III	7.62mm Full Metal Jacket(.308 Winchester)	150	9.7	2700	2800	5
Level IV	.30-06 armor piercing	166	10.8	2800	2900	1



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