

1. These requirements cover materials, devices, and fixtures used to form bullet-resisting barriers which protect against robbery, holdup, or armed attack such as those by snipers.

2. This standard can also be used to determine the bullet resistance of building components that do not fit the definition of equipment, such as windows, walls, or barriers made out of bullet resistant materials.

3. As used in these requirements, the term "bullet-resisting" signifies that protection is provided against complete penetration, passage of fragments of projectiles, or spalling (fragmentation) of the protective material to the degree that injury would be caused to a person standing directly behind the bullet-resisting barrier.

4. The term "product" as used in this standard refers to all bullet-resisting equipment or any part thereof covered by this standard unless specifically noted otherwise.

Ratings of Bullet Resistant materials as identified by: Underwriters Laboratories UL-752							
Rating	Ammunition	Weight (Grains)	Weight (Grams)	min fps	max fps	Number of Shots	Shield Passed
Level 1	9mm Full Metal Copper Jacket with Lead Core	124	8	1175	1293	3	Yes
Level 2	.357 Magnum Jacketed Lead Soft Point	158	10.2	1250	1375	3	Yes
Level 3	.44 Magnum Lead Semi-Wadcutter Gas Checked	240	15.6	1350	1485	3	Yes
Level 4	.30 Caliber Rifle Lead Core Soft Point (.30-06 Caliber)	180	11.7	2540	2794	1	Yes
Level 5	7.62mm Rifle Lead Core Full Metal Copper Jacket Military Ball (.308 Caliber)	150	9.7	2750	3025	1	Yes
Level 6	9mm Full Metal Copper Jacket with Lead Core	124	8	1400	1540	5	Yes
Level 7	5.56mm Rifle Full Metal Copper Jacket with Lead Core (.223 Caliber)	55	3.56	3080	3383	5	Yes
Level 8	7.62mm Rifle Lead Core Full Metal Copper Jacket Military Ball (.308 Caliber)	150	9.7	2750	3025	5	Yes
Level 9	.30-06 caliber rifle, steel core, lead point filler, FMJ (APM2)	166	10.8	2715	2987	1	Yes
Level 10	.50 caliber rifle, lead core FMJ Military Ball (M2)	709.5	45.9	2810	3091	1	Yes
Shotgun	12-Gauge Rifled Lead Slug	1 Oz.	28.3	1585	1744	3	Yes
	12-Gauge 00 Buckshot (12 pellets)	1.5oz	42	1200	1320	3	Yes

Ratings of Bullet Resistant materials as identified by: National Institute of Justice (NIJ) 018.01							
Rating	Ammunition	Weight (Grains)	Weight (Grams)	Min/Max (Meters/Sec)	Min/Max (Feet/Sec)	Number of Shots	Shield Passed
Level I	.22 long rifle high velocity lead	40	2.6	320 +/- 12	1050 +/- 40	5	Yes
Level I	.38 special round nose lead	158	10.2	259 +/- 15	850 +/- 50	5	Yes
Level II	.357 mag. jacketed soft point	158	10.2	425 +/- 15	1395 +/- 50	5	Yes
Level II	9mm full metal jacket	124	8	358 +/- 12	1175 +/- 40	5	Yes
Level IIA	.357 mag. jacketed soft point	158	10.2	381 +/- 15	1250 +/- 50	5	Yes
Level IIA	9mm full metal jacket	124	8	332 +/- 12	1090 +/- 40	5	Yes
Level III	7.62mm (.308 Winchester) full metal jacket	150	9.7	838 +/- 15	2750 +/- 50	5	Yes
Level IIIA	.44 mag. lead semi-wadcutter gas checked	240	15.55	426 +/- 15	1400 +/- 50	5	Yes
Level IIIA	9 mm full metal jacket	124	8	426 +/- 15	1400 +/- 50	5	Yes
Level IV	.30-06 armor piercing	166	10.8	868 +/- 15	2850 +/- 50	1	Yes

Ratings of Bullet Resistant materials as identified by: State Department SD-STD-02.01							
Rating	Ammunition	Weight (Grains)	Weight (Grains)	min fps	max fps	Number of Shots	Shield Passed
SD - Minimum, 9mm Parabellum	9mm Full Steel Jacket (FSJ)	115	7.45	1350	1450	3	Yes
SD - Minimum, 12 ga, 2-3/4"	12 gauge, 2-3/4", #4 Buck	556	36.03	1275	1375	1	Yes
SD -Rifle, .30, 7.62 NATO	(Part 1) .308 caliber, 7.52 NATO M80	147	9.53	2700	2800	1	Yes
SD - Rifle, .223, 5.56 NATO	(Part 2) .223 caliber, 5.56mm NATO M193	55	3.56	3135	3235	1	Yes
SD - Rifle, .223, 5.56 NATO	(Part 3) .223 caliber, 5.56mm NATO M855	63	4.08	2950	2950 +	1	Yes
SD - Rifle, 12 ga, 2-3/4"	(Part 4) 12 gauge, 2-3/4", #4 Buck	556	36.03	1275	1375	1	Yes
SD - Rifle AP, .30, 7.62 NATO	(Part 1) .30 caliber, 7.62mm NATO M61 AP	150	9.72	2700	2800	3	Yes
SD - Rifle AP, .30, 30-06	(Part 1) .30.06 caliber M2AP	165	10.69	2800	2900	3	Yes

Ratings of Bullet Resistant materials as identified by: ASTM F-1233							
Rating	Ammunition	Weight (Grains)	Weight (Grams)	Min/Max (Meters/Sec)	Min/Max (Feet/Sec)	Number of Shots	Shield Passed
9 mm Parabellum /Submachine Gun	9mm Parabellum FMJ	124	8.04	1350	1450	3	Yes
.38 Super / Handgun	.38 Super FMJ	130	8.42	1230	1330	3	Yes
.44 Magnum / Handgun	.44 Magnum JSP	240	15.55	1400	1500	3	Yes
7.62 NATO / Rifle	7.62 mm (.308 caliber) M80 NATO	147	9.53	2750	2850	3	Yes
.30-06 Armor Piercing Rifle	.30-06 M2 AP	165	10.69	2725	2825	3	Yes
12 ga. Shotshell, 3" Magnum	12 gauge, 3" Magnum, #00 Buckshot	808	52.36	1265	1365	3	Yes

Ratings of Bullet Resistant materials as identified by: European Standard DIN EN 1063							
Rating	Ammunition	Weight (Grains)	Weight (Grams)	min fps	max fps	Number of Shots	Shield Passed
BR1, .22 LR	.22 LR RNL	40	2.59	1048	1214	3	Yes
BR2, 9mm	9 mm Luger FSJ-RNSC	124	8.04	1280	1345	3	Yes
BR3, .357 Magnum	.357 Magnum FSJ-CNSC	158	10.24	1378	1444	3	Yes
BR4, .44 Magnum	.44 Magnum FCJ-FNSC	240	15.55	1411	1476	3	Yes
BR5, 5.56 x 45 NATO AP	5.56 mm x 45 NATO SS 109 steel penetrator	62	4.02	3084	3150	3	Yes
BR6, 7.62 x 51 NATO	7.62 mm x 51 NATO M80 FSJ	147	9.53	2690	2756	3	Yes
BR7, 7.62 x 51 NATO AP	7.62 mm x 51 NATO AP SHC	150	9.72	2657	2723	3	Yes
SG1/SG2, Shotgun	12 gauge solid lead Brenneke slug	478	30.97	1312	1444	1	Yes

Ratings of Bullet Resistant materials as identified by:
British Standards Institution BS 5051

Rating	Ammunition	Weight (Grains)	Weight (Grams)	min fps	max fps	Number of Shots	Shield Passed
BSI-G0, 9 mm Parabellum	9 mm Parabellum FMJ	115	7.45	1280	1378	3	Yes
BSI-G1, .357 Magnum	.357 Magnum JSP	158	10.24	1427	1526	3	Yes
BSI-G2, .44 Magnum	.44 Magnum JSP	240	15.55	1496	1594	3	Yes
BSI-R1, .223, 5.56 NATO	.223 caliber, 5.56 mm NATO M885/SS109	63	4.08	3015	3114	3	Yes
BSI-R2, .30, 7.62	.308 caliber, 7.62 mm NATO M80	147	9.53	2674	2772	3	Yes
BSI-S86, 12ga. 2-3/4"	12 guage, 2-3/4"	438	28.38	1332	1463	1	Yes

Ratings of Bullet Resistant materials as identified by:
Councils of Standards Australia / New Zealand AS/NZ 2343

Rating	Ammunition	Weight (Grains)	Weight (Grams)	min fps	max fps	Number of Shots	Shield Passed
G0, 9 mm Parabellum	9 mm Parabellum FMJ	115	7.45	1294	1362	3	Yes
G1, .357 Magnum	.357 Magnum SWC	158	10.24	1467	1532	3	Yes
G2, .44 Magnum	.44 Magnum SWC	240	15.55	1568	1634	3	Yes
R1, .223, 5.56 NATO	.223 caliber, 5.56 mm NATO M193	55	3.56	3182	3248	3	Yes
R2, .30, 7.62 NATO	.308 caliber, 7.62 mm NATO M80	147	7.53	2766	2831	3	Yes
S0, 12 ga, 2-3/4"	12 gauge, 2-3/4" SHOT	493	31.95	1289	1355	3	Yes
S1, 12 ga, 2-3/4"	12 gauge, 2-3/4" SLUG	382	24.75	1532	1598	2	Yes

Ratings of Bullet Resistant materials as identified by:
German Deutche Institut fur Normung (DIN) 52-290

Rating	Ammunition	Weight (Grains)	Weight (Grams)	min fps	max fps	Number of Shots	Shield Passed
C1-SF and C1-SA, 9 mm Parabellum	9 mm Parabellum FMJ	124	8.04	1165	1198	3	Yes
C2-SF and C2-SA, .357 Magnum	.357 Magnum FMJ	158	10.24	1362	1394	3	Yes
C3-SF and C3-SA, .44 Magnum	.44 Magnum FMJ	240	15.55	1427	1460	3	Yes
C4-SF and C4-SA, .30, 7.62 NATO	.308 caliber, 7.62 mm NATO M80	147	9.53	2575	2608	3	Yes
C5-SF and C5-SA, .30, 7.62 NATO	.308 caliber, 7.62 mm NATO M61 AP	150	9.72	2625	2657	3	Yes