

Lasco International Group

Montgomery Towers P.O. BOX 475118 San Francisco, CA 94147-5118

Phone: (415) 668-3770 | Fax: (415) 771-2002 | Immediate Response: (Cell) 415-720-7500

Ballistic Level	Threat	Projectile weight & velocity
Our level II Vehicle	II	II
Meets: UL 1, 2 NIJ IIA, II	9mm .357 magnum .38 special	124 grain @ 1225 fps 158 grain @ 1375 fps 158 grain @ 900 fps
Our Level III Vehicle	III	III
Meets: UL 1, 2, 3 NIJ IIA, II, IIIA	.44 magnum .357 magnum UZI 9mm	240 grain @ 1450 fps 158 grain @ 1450 fps 124 grain @ 1450 fps
Our Level IV Vehicle	IV	IV
Meets: UL 1, 2, 3, 4, 5, 6 NIJ IIA, II, IIIA, III	7.62 x 51 M80 7.62 x54 ball .30 calibre SP 7.62x39 SC Norinco	150 grain @ 2800 fps 158 grain @ 2685 fps 180 grain @ 2795 fps 123 grain @ 2450 fps
Our Level V Vehicle	V	V
Meets: UL1, 2, 3, 4, 5, 6, 7 NIJ IIA, II, IIIA, III	5.56 x 45 SS109 7.62 x 39 SC 7.62 x 54 LPS	55 grain @ 3250 fps 123 grain @ 2450 fps 150 grain @ 2850 fps

Lasco Standard

LEVEL	TYPE OF WEAPON	CALIBRE	AMMUNITION	TEST RANGE
I	.38 Special S&W	.38 Special	RN Lead 10.2g	5m
IIA	9mm Pistol	9mm x 19 Para	FMJ 8.0g	5m
II	.357 Magnum S&W	.357 Magnum	JSP 10.2g	5m
IIIA	.44 Magnum Colt	.44 Magnum	SWC/GC 15.55g	5m
III	AK47 Kalashnikov	7.62mm x 39	M43 VH 200-385 7.9g	5m
IV	SLR L1A1	7.62mm x 51	M80 Ball 9.7g	5m
V	M16	5.56mm x 45	M193 3.56g	5m
VI	SLR L1A1	7.62mm x 51	AP M61 9.7g	5m
VI	M1	30-06 (7.62mm x 63)	AP 10.75g	5m
VI	Dragunov SVD	7.62mm x 54r ST2M	HS Penetrator 9.6g	5m

Note: Level of protection is based in part, on the United States Institute of Justice (N.I.J.) standard 0108-01.

Abbreviations: FMJ-Full Metal Jacket, JSP-Jacketed Soft Point, RN-Round Nose, SWC-Semi Wadcutter, g-Gram, gr-Grain

All tests conducted are based upon average velocity of selected ammunition

Click below to view ballistic standards of other countries.

<u>Euronorm:</u>	EN.1063
<u>German:</u>	D.I.N. 52290
<u>British:</u>	BS. 5051
<u>United States:</u>	N.I.J. 0108-01, UL752
<u>Australian:</u>	AS2343
<u>Russian Gost:</u>	R50963.96

There may be other standards that should be taken into consideration depending upon where the client is domiciled. Armored levels of protection are similar in many countries. As testing standards vary, the materials may be of a different thickness and quality to match each standard of armored level.

When choosing armoring levels, Armet prefers to have the client decide which projectile they wish to defeat, due to the inconsistencies of armoring levels in the armored vehicle manufacturing industry. Reference should be made to the type of weapons available to terrorists in the country or state in which the vehicle will be used. For example, Level II armor would be useless in the Middle East or Eastern Europe where AK-47 rifles (Kalashnikov) are easily obtained.

As levels of protection become greater, there are obviously cost differences associated with each level of projectile that must be defeated.

EURONORM STANDARD EN1063

CLASS	TYPE OF WEAPON	CALIBRE	AMMUNITION	TEST RANGE
B1	rifle	.22 lr	RN/lead	10m
B2	hand gun	9mm para	FJ2)/RN/SC	5m
B3	hand gun	.357 magnum	FJ3)/CB/SC	5m
B4	hand gun	.44 magnum	FJ4)/FN/SCP	5m
B5	rifle	5.56mm x 45	FJ4)/PB/SC	10m
B6	rifle	7.62mm x 51	FJ2)/PB/SC	10m
B7	rifle	7.62mm x 51	FJ4)/PB/BC	10m

All tests conducted are based upon average velocity of selected ammunition

GERMAN STANDARD D.I.N. 52290

CLASS		TYPE OF WEAPON	CALIBRE	AMMUNITION	TEST RANGE
MAT	GLASS				
M1	C1	SIG	9mm x 19	VMR/wk	3m
M2	C2	S & W	.357 magnum	VMKS/wk	3m
M3	C3	COLT	.44 magnum	VMF/wk	3m
M4	C4	NATO rifle	7.62mm x 51	VMS/wk	10m
M5	C5	NATO rifle	7.62mm x 51	VMS/hk	25m

BRITISH BS 5051

CLASS	TYPE OF WEAPON	CALIBRE	AMMUNITION	TEST RANGE
G0	UZI	9mm	FMJ/RN/SC	5m
G1	S & W	.357 magnum	FMJ/CB/SC	5m
G2	COLT	.44 magnum	JHP/SC/240gr	5m
G2	Remington shot gun	12 gauge	Brenneke	10m
G3	COLT	.44 magnum	JHP/SC/128gr	10m
G3	AK47	7.62mm x 39	M43	10m
R1	SA80	5.56mm x 45	SS109	10m
R2	SLR L1A1	7.62mm X 51	Ball	10m
R2	AK74 - AKS74	5.45mm X 39	FJ/PB/SC	10m

N.I.J. STANDARD 0108-01

LEVEL	TYPE OF WEAPON	CALIBRE	AMMUNITION	TEST RANGE
I	.22 LR Handgun	.22 LR	LRHV	5m
I	.38 Special	.38 Sp	RN Lead	5m
IIA	.357 Magnum	.357 Magnum	JSP 158 gr	5m
IIA	9mm Handgun	9mm x 19	FMJ 124 gr	5m
II	.357 Magnum	.357 Magnum	HV/JSP 158 gr	5m
II	9mm Handgun	9mm x 19	HV/FMJ 124 gr	5m
IIIA	44 Mg Handgun	44 Mg	Lead GC 240gr	5m
IIIA	9mm S.M.G.	9mm x 19	FMJ 124 gr	5m
III	7.62 or .308 Rifle	7.62mm x 51	.308 FMJ 150 gr	15m
IV	M14	7.62mm x 63	AP30.06 166 gr	15m

Ballistics statistics Provided by National Institute of Justice.

Underwriters Laboratory. STANDARD 752

Table 3.1 January 27, 1995

CLASS	TYPE OF WEAPON	CALIBRE	AMMUNITION	TEST RANGE
Level 1	9mm	9mm x 19	FMJ LC	4.6m
Level 2	.357 Magnum	.357	JLSP	4.6m
Level 3	.44 Magnum	.44	LSW GC	4.6m
Level 4	30.06 Rifle	30.06	LSP	4.6m
Level 5	7.62mm or .308 rifle	7.62mm x 51	LC/ FMJ Military Ball	4.6m
Level 6	9mm Uzi	9mm x 19	FMJ/LC	4.6m
Level 7	5.56 Rifle	5.56mm x 45	FMJ/ LC	4.6m
Level 8	7.62 M14	7.62mm x 51	LC/FMJ Military Ball	4.6m
Shotgun	12-gauge	Rifled slug	Lead 28gr	4.6m
Shotgun	12-gauge	00 buckshot	Lead 42gr	4.6m

All tests conducted are based upon average velocity of selected ammunition.

Armet is not responsible for the validity of the above information.

AUSTRALIAN STANDARD AS2343

LEVEL	TYPE OF WEAPON	CALIBRE	AMMUNITION	TEST RANGE
G0	9mm Parabellum	MK 22 9mm	Metal Case	3m
G1	.357 Mg	.357	LSWC	3m
G2	44 Magnum	44	LSWC	3m
R1	5.56	M193 5.56	FMC	10m
R2	7.62 NATO	7.62mm x 51	FMC	10m
S0	12 gauge Full Choke	12 g	70mm HV S.G.	3m
S1	12 gauge Full Choke	12 g.	70mm Slug	3m

All tests conducted are based upon average velocity of selected ammunition

RUSSIAN STANDARD : GOST R50963-96

CLASS	TYPE OF WEAPON	CALIBRE	AMMUNITION	TEST RANGE
1	Makarov	9mm x 18 57-N-181	MS	5m
	Tokarev	7.62mm x 25 57-N-132C 7.62mm x 25 57-N-134C	MS	5m
	Uzi	9mm x 19 Para	JSP	5m
	Browning	9mm x 19 Para	JSP	5m
2	AK-74 Kalashnikov	5.45mm x 39 7H6	MS Penetrator	10m
	AK-47 Kalashnikov	7.62mm x 39 LS43	MS Penetrator	10m
3	AK-47 Kalashnikov	5.45mm x 39 7H6M	HS Penetrator	10m
	AK-47 Kalashnikov	7.62mm x 39 57H231	HS Penetrator	10m
	M16A2	5.56mm x 54 M193	JSP Ball	10m
	G-3	7.62mm x 51 DM41	JSP Ball	10m
4	AK-47 Kalashnikov	7.62mm x 39 Armor piercing tracer B3	HS Penetrator	10m
	Dragunov SVD	7.62mm x 54r CT2M	HS Penetrator	10m
	G3 LB	7.62mm x 51 DM-41	HS Penetrator	10m
5	Dragunov SVD	7.62mm x 54r Armor piercing tracer B-32	HS Penetrator	10m

All tests conducted are based upon average velocity of selected ammunition