ARMORCORE
BULLET RESISTANT FIBERGLASS PANELS

UL 752 Protection Levels

Level / UL Rating	Nominal Thickness	Nominal Weight lbs/sq. ft	Ammunition	Grain	(g)	Minimum fps	Velocity m/s	No. of Shots	UL 752 Paragraph
Level 1	1/4"	2.6 psf	9mm full metal copper jacket with lead core	124	8	1175	358	3	4.3
Level 2	5/16"	3.6 psf	.357 magnum jacketed lead soft point	158	10.2	1250	381	3	4.4
Level 3	7/16"	4.8 psf	.44 magnum lead semi-wadcutter gas checked	240	15.6	1350	411	3	4.5
Level 4	1-3/8"	13.9 psf	.30 caliber rifle lead core	180	11.7	2450	774	1	4.6
Level 5	1-7/16"	14.8 psf	7.62mm rifle lead core full metal copper jacket, military ball	150	9.7	2750	838	1	4.7
Level 6	3/8"	3.9 psf	9mm full metal copper jacket with lead core	124	8	1400	427	5	4.8
Level 7	1-1/8"	11.7 psf	5.56mm rifle full metal copper jacket, with lead core	55	3.56	3080	939	5	4.9
Level 8	1-7/16"	15.2 psf	7.62mm rifle lead core full metal copper jacket, military ball	150	9.7	2750	838	5	4.10
Supplementary Shotgun			12-gauge rifled slug	437	28.3	1585	483	3	4.11
			12-gauge 00 lead buckshot (12 pellets)	650	42	1200	366		

Maximum Velocity is 110 percent of minimum velocity.

ASTM Testing

Level	ASTM F1233-98 Standard Test Method for Forced Entry Testing of Materials/Assemblies	ASTM E119-98 Standard Test for One-Hour Fire-Rating of Building Construction and Materials	ASTM E 90-97 Standard Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions
1	-	-	-
2	-	-	-
3	Yes	Yes	-
4	Yes	Yes	Yes
5	Yes	Yes	Yes
6	-	Yes	-
7	Yes	Yes	-
8	Yes	Yes	Yes

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UL 752 Specification Descriptions

Paragraph 4.3
Level 1 – Protection against hand guns of medium power, such as the 9mm, Super 38 Automatic, and the like, with muzzle energy of 380-460 foot-pounds (515-624J).

Paragraph 4.4
Level 2 – Protection against hand guns of high power, such as the .357 Magnum, and the like, with muzzle energy of 548-663 foot-pounds (743-899J).

Paragraph 4.5
Level 3 – Protection against hand guns of super power, such as the .44 Magnum, and the like, with muzzle energy of 971-1175 foot-pounds (1317-1593J).

Paragraph 4.6
Level 4 – Protection against high-power hunting and sporting rifles, such as the 30-06, and the like, with muzzle energy of 2580-3120 foot-pounds (3498-4929J).

Paragraph 4.7
Level 5 – Protection against military ball full metal copper jacket ammunition fired from a hunting rifle such as the 308 Winchester or a military rifle with muzzle energy of 2519-3048 foot-pounds (3416-4133J).

Paragraph 4.8
Level 6 – Protection against multiple shots from a submachine-gun, such as a 9 mm Uzi, and the like, with muzzle energy of 540-653 foot-pounds (732-885J).

Paragraph 4.9
Level 7 – Protection against multiple shots from a military assault rifle, such as the M-16, and the like, with muzzle energy of 1158-1402 foot-pounds (1570-1901J).

Paragraph 4.10
Level 8 – Protection against multiple shots from a military assault rifle, such as an M-14, and the like, with muzzle energy of 2519-3048 foot pounds (3416-4133J).

Paragraph 4.11
SUPPLEMENTARY SHOTGUN – A supplementary test using a rifled lead slug with muzzle energy of 2438-2950 foot-pounds (3306-4000J) and 00 lead buckshot with a muzzle energy of 2078-2415 foot-pounds (2818-3275J), fired from a 12-gauge shotgun. Products shall be tested with both loads. Products complying with this test may have the suffix “SG” added to the rating designation.