

5.56 x 45 mm Applications

Winchester's 5.56 x 45 mm cartridges are designed to be compatible with all firearms chambered in 5.56 x 45 mm NATO. They are verified to function in the M16, M16A1, M16A2, M4 and the M249 Squad Automatic Weapon (SAW).



M193 Ball



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The M193 has a 55-grain projectile with no tip identification. In an effort to reduce weight, the $5.56 \times 45 \text{ mm}$ cartridge first appeared in 1957 as an experimental military cartridge. In 1964, it was officially adopted by the U.S. Army as the 5.56 mm Ball cartridge M193. The cartridge was first combat-tested in Vietnam in the early 1960s.

2.260 in / 57.4 mm
182 grains / 11.79 grams
55 grains / 3.63 grams FMJ (copper) boat tail with lead core
Minimum of 35 lb (16 kg)
Manufacturer symbol (LC or WMA) and the year of manufacture
Brass (Copper Alloy No. 260)
No. 41, Boxer Style

Performance	
Manufacture Specifications	U.S. Military: • MIL-DTL-9963 • MIL-STD-636 • MIL-STD-1916 • Drawing: 10523632
Muzzle Velocity	3,165 ft/s \pm 40 ft/s (78 ft from muzzle) @ 70 \pm 2° F/ 965 \pm 12 m/s (24 m from muzzle) @ 21 \pm 2° C
Chamber Pressure	Average maximum: 55,000 psi @ 70° F (380 Mpa @ 21° C)
Accuracy	Average mean radii maximum: 2.0 in @ 200 yds / 5.1 cm @ 183 m
Operating Range	-65° F to 125° F (-54° C to 52° C)
Note	For use in standard 5.56 x 45 mm chambers only



M855 Ball



Description

The M855 (SS109) has a 62-grain projectile with green tip identification. Adopted by NATO in 1980, the M855 has improved penetration characteristics over the M193 55-grain projectile at all ranges, resulting in higher retained muzzle velocity and greater accuracy at long range.

Physical Data	
Cartridge Length	2.260 in / 57.4 mm
Cartridge Weight	190 grains / 12.31 grams
Bullet	62 grains / 4 grams FMJ (copper) boat tail with steel penetrator and lead core
Bullet Extraction	Minimum of: 45 lb (20 kg)
TIP Identification	Green
Headstamp	Manufacturer symbol (LC or WMA) and the year of manufacture
Cartridge Case Material	Brass (Copper Alloy No. 260)
Primer Type	No. 41, Boxer Style

Performance	
Manufacture Specifications	U.S. Military: • MIL-DTL-63989 • MIL-STD-636 • MIL-STD-1916 • Drawing: 9342868
Muzzle Velocity	3,020 ft/s \pm 40 ft/s (78 ft from muzzle) @ 70 \pm 2° F/ 920 m/s \pm 12 m/s (24 m from muzzle) @ 21 \pm 2° C
Chamber Pressure	Average maximum: 58,700 psi @ 70° F (405 Mpa @ 21° C)
Accuracy	1.8 in @ 200 yds (4.6 cm @ 183 m) / 6.8 in @ 600 yds (17.3 cm @ 549 m)
Operating Range	-65° F to 125° F (-54° C to 52° C)
Note	For use in standard 5.56 x 45 mm chambers only



5.56 X 45 mm Mk311 Frangible



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Mk311 has a 50 grain frangible projectile. 5.56mm frangible ammunition is used for indoor/outdoor training including Close Quarter Battle training.

Physical Data	
Cartridge Length	2.260 in
Cartridge Weight	175 grains
Bullet	50 Grain Semi-Jacketed Frangible with brass jacket, 100% lead free copper-polymer core
Bullet Extraction	Minimum of: 25 lb
Headstamp	Manufacturer symbol (LC or WMA) and the year of manufacture
Cartridge Case Material	Brass (Copper Alloy No. 260)
Primer Type	Winchester Lead Free, heavy metal free priming mix, boxer type

Reclargence	4.5 inches (11.4 cm) max. avg. Extreme Spread
Velocity	3,000 ft/sec (914 m/s) nominal at 78 ft (23.8 m)
Energy	898 ft-lb (1218 joules)
Pressure	58,700 psi (4048 bars) max. average



M856A1 Tracer



Description

The M856A1 has a 55-grain projectile with orange tip identification. This cartridge has a pyrotechnic charge which permits observation of the round's trajectory from 77 yds to 984 yds. The M856A1 Tracer is effective against soft targets and is frequently linked for use in automatic weapons.

Physical Data	
Cartridge Length	2.260 in / 57.4 mm
Cartridge Weight	183 grains / 14 grams
Bullet	55.6 grains / 3.63 grams FMJ (copper alloy clad steel) with copper core, trace composition
	and igniter composition
Bullet Extraction	45 lb (20 kg)
Tip Identification	Orange
Headstamp	Manufacturer symbol (LC or WMA) and the year of manufacture
Cartridge Case Material	Brass (Copper Alloy No. 260)
Primer Type	No. 41, Boxer Style

Performance	
Manufacture Specifications	U.S. Military: • MIL-DTL-32395 • MIL-STD-636 • MIL-STD-1916 • Drawing: 13029994
Muzzle Velocity	3,100 +/- 40 ft/s (78ft from muzzle) @ 70 +/- 2 F / 945 +/- 12 m/s (24m from muzzle) @ 21 +/- 2 C
Chamber Pressure	Average maximum: 58,700 psi @ 70° F (405 Mpa @ 21° C)
Accuracy	Average horizontal and vertical standard deviation maximum: 10.3 in @ 600 yds (26.2 cm @ 549m)
Trace Performance	Dim at 14 yds (13m) and Visible trace 77 yds to 984 yds (70m to 900m)
Operating Range	-65 F to 125 F (-54 C to 52 C)
Notes	For use in standard 5.56 x 45 mm chambers only



M200 Blank



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The M200 has a purple lacquer on rosette crimp and knurl on the case body. This cartridge is used with a blank-firing adapter for training activities. The M200 is specifically designed to work with the M4, M16 and M249 weapon systems.

Physical Data	
Cartridge Length	1.900 in / 48.26 mm
Cartridge Weight	109 grains / 7.06 grams
Tip Identification	Purple lacquer on rosette crimp
Headstamp	Manufacturer symbol (LC or WMA) and the year of manufacture
Cartridge Case Material	Brass (Copper Alloy No. 260)
Primer Type	No. 41, Boxer Style

Performance	
Manufacture Specifications	U.S. Military: • MIL-DTL-60616 • MIL-STD-636 • MIL-STD-1916 • Drawing: 10542379
Operating Range	-25° F to 125° F (-32° C to 52° C)
Note	Blank cartridges depend on the weapon system and Blank Firing Adapter (BFA) to create the correct pressure to operate the weapon. Incorrect setup or mismatched weapons systems and BFAs can result in extreme overpressure or insufficient pressure to operate the weapon.