



5.56 X 45 MM

BALL FMJ M855/ SS109 - 4,0 g (62 gr)

5.56 x 45 mm FMJ

The cartridge consists of case, primer, gunpowder and bullet. It is applicable in extreme polar or desert conditions, contributing to the versatility of its use.

5.56 x 45 mm – FMJ bullet

The FMJ (Full Metal Jacket) bullet weighs 4.0 g (62 gr) and has a lead core with a steel penetrator, enhancing its penetration capability. The jacket is made of CuZn10, providing strength and uniformity in ballistic performance.

5.56 x 45 mm - case

The caliber $5.56 \times 45 \text{ mm}$ CuZn30 case is intended for inserting the powder charge, primer and bullet.

SPECIFICATIONS

Technical Specification

CARTRIDGE

Caliber 5.56 x 45 mm, SS109

Weight max 12.40 g

Length max 57.40 mm

BULLET GRAIN

Type FMJ, Ball

Weight $4.00 g \pm 0.1 g (62 grain)$

Length max 23.4 mm

Material Jacket - CuZn10; Core - Lead,

Perforating - steel tip

Extraction ≥ 200 N

CASE

Length max 44.7 mm

Material CuZn30

PRIMER

Type Boxer, non-corrosive, non-toxic

Propellant Smokeless Powder (Double Base)

Waterproof Sealant applied

The 5.56×45 mm, SS109, Ball, produced in ATS AMMO is compliant with NATO STANAG 4172 requirements. Ilt complies with the requirements of the NATO manuals AC/225(LG/3-SG/1)D/8 and PFP(NAAG-LCG/1-SG/1) WP(2010)0002. The ammunition can be fired from all NATO nominated 5.56 mm weapons: assault rifles – FNC, M16A2, H&K G36, BERETTA AR70/90, L85A2; Light machine gun – MINIMI.

ELECTRONIC PRESSURE AND VELOCITY (KIAG 6215)		
Ammunition Temperature	+21°C ± 2°C	+52°C & -54°C
Velocity (at 24 m, m/s)	V = 919 ± 10 m/s	Max Velocity Difference between +52°C/ -54°C and 21°C samples +50m/s and -80m/s
Standard Deviation	≤ 12 m/s	No requirement
Max Corrected Mean Case Mouth Pressure, MPa	XCP +3SD ≤ 445 Mpa	Max case mouth difference between +52°C/ -54°C and 21°C samples is not +55 Mpa or -110 Mpa
inoutin ressure, in a		XCP+3SD ≤ 445 Mpa
Min Corrected Mean Port Pressure, MPa	XPP - 3SD ≤ 103 Mpa	Max port pressure difference between +52°C/ -54°C and 21°C samples is ± 15 Mpa
ri essui e, ivira		XPP-3SD ≥ 103 Mpa
Action Time (ms)	No requirement	Max Mean Action Time + 5 SD for -54°C sample ≤ 3 ms
Muzzle Energy (at 24 m, J)	≤ 1480 J	No requirement
Precision (at 183 m)	$HSD \le 46 \text{ mm}$ and $VSD \le 46 \text{ mm}$ or $Mr \le 46 \text{ mm}$	
Precision (at 550 m)	HSD ≤ 200 mm and VSD ≤ 200 mm	
Function and Casualty	Permissible percentage of defects was not exceeded	
Primer sensitivity critical hight method (run down)		H +5 SD H - 2 SD ≤ 450 ≤ 75
Terminal effects at distance 570 m, perforation mild steel plate, aluminium witness screen (0.3 m behind steel plate)		3,5 1020, hardness RB 55-70) m ANSI 2024 T3
Trajectory match	Horizontal ≤ 175 mm @ 300 m ≤ 385 mm @ 500 m	Vertical ≤ 125 mm @ 300 m ≤ 275 mm @ 550 m
Waterproof test	No more than 15% of the te	ested rounds have leaks

Compatibility with: AC/225(LG/3-SG/1)D/8 and PFP(NAAG-LCG/1-SG/1)WP(2010)0002 and STANAG 4172

PACKING		
20 rounds fiberboard box		
540 rounds, ADR 1.4 S, UN0012 certified fiberboard case or 1000 rounds in M2A1 metal box (42 boxes sealed in 6 PVC bags and aluminium foil or 50 fiberboard box in M2A1 metal box)		
Net: 11.90 kg		
Gross: 12.70 kg		
NEQ: 1.4 kg		
1.4 S		
CARTRIDGES, SMALL ARMS		

Packaging can be arranged based on the request of the buyer and cartridges supplied in either outer carton or metal M2A1 boxes, palletized. The boxes and pallets shall be marked according to the requirements of the costumer.

V = Corrected velocity

XCP = Corrected mean chamber presure

XPP = Corrected mean Port presure

HSD = Horizontal standard deviation

VSD = Vertical standard deviation

Mr = Mean radius

Test Equipment

The equipment that is used for testing the ballistic characteristics of the ammunition is from Prototypa and is as follows:

- · Universal Ballistic Breech (Receiver) UZ-2002
- Support reducing inserter UZ-2002
- Exchangeable parts sets for cal. 5.56x45 mm for action time measuring:
 - · Breech block head insulated marked 1 INM
 - · Firing pin insulated marked 1 INA
 - · Extractor marked 1
 - · Firing pin spring
 - Extractor spring
 - · Extractor cap
 - · Rivet 3x8
 - · Firing pin end
- Pressure Test Barrel cal. 5.56x45 mm for Receiver M2; Length = 508 mm, KISTLER 6215 pressure vent position M1-46.5 mm, M2=280 mm
- · Velocity/Accuracy Test Barrel cal. 5.56x45mm for Receiver M2; Length = 508 mm
- · Head space gauge GO and NOGO cal. 5.56x45 mm.
- · SAU-4QU Signal acquisition unit
 - 4 charge inputs for transducers/voltage inputs (programmable)
- · Quartz High pressure Sensor KISTLER 6215A1
- · LS06 Intelligent Light gates
 - · Diode system, Base 1 m, software BMS English
- · BP-1 Bullet pull tester.

Range of calibers from 4.5 to 12 mm

Maximum load 2500 N

The equipment is controlled, maintain, and calibrated according to the specifications. We are always aiming for improving the testing facility with lates in line equipment's and assuring that the possibility of mistake is reduced to the minimum.

Outsourcing Components

ATS® Ammunition has its own top-to-bottom manufacturing of a finished Product, an output of In-house made Machines, and produces 100% In-house Materials, Components and Tooling). ATS AMMO 5.56 x 45 mm, SS109 components (bullet, case, primer) are perfectly compact, customizable and *available for individual purchase*.







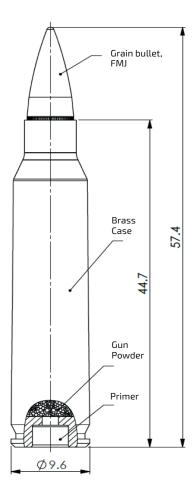


Image: Components Layout (5.56 x 45 mm, SS109) Part number: 5561009; NSN 1305-54-000-0139