


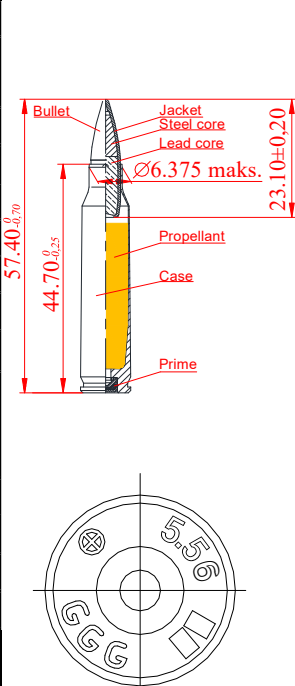
5.56x45 NATO Ball ammunition

GENERAL INFORMATION

5.56 mm NATO BALL ammunition produced in the company AB Giraitės ginkluotės gamykla (GGG) conforms to NATO STANAG 4172 requirements. It is qualified in according to the NATO manuals AC/225(LG/3-SG/1)D/8, PFP(NAAG-LG/3-SG/1)D(2004)1. NATO Design Number is AC/225 – 130A. The performance of 5.56 mm BALL NATO ammunition is equivalent to SS109 ball cartridges. This ammunition produced in accordance with ISO 9001:2015 (Quality Management Systems Requirements), ISO 2859-1 (Sampling Procedures and for Inspection by Attributes Part 1: Sampling Plans indexed by Acceptable Quality Level (AQL) for lot-by-lot inspection), ISO 3951 (Sampling Procedures and Charts for Inspection by Variables for Percent Defective) requirements. Ammunition can be fired from all NATO nominated 5.56 mm weapons: Assault rifles – FNC, M16A2, H&K G36, BERETTA AR 70/90, L85A2; Light machine gun – MINIMI.

TECHNICAL SPECIFICATIONS

1. Table. Technical specifications


		Caliber	5.56 mm
		Waterproofing lacquer	Case mouth and case-primer joint are waterproof sealing
		Total length	mm 57,40 - 0,20
		Total weight	g 11,85±0,45
		Bullet	type Ball
		Bullet weight	gr 62
			g 4,00 ± 0,1
		Bullet length	mm 23,10 ± 0,20
		Bullet extraction	N ≥ 200 N
		Bullet material	Jacket – CuZn10; Perforating core – steel 35B2, rear core – lead antimony (2,2%)
		Case material	CuZn30
		Case length	mm 44,70 - 0,25
		Propellant	type Double base, smokeless
			type BOXER
		Primer	Percussion, non corrosive, non mercuric

BALLISTIC PROPERTIES

Compatibility: STANAG 4172, AC/225 (LG/3-SG/1) D/8, PFP (NAAG-LG/3-SG/1) D(2004)1.

Maximum estimated ballistic range of 5.56x45 NATO Ball GP21 ammunition is 3749 m at an elevation angle 29 degrees in prescribed below meteorological conditions: barometric pressure 760 mm Hg, humidity 78 %, temperature 15 °C.

PRODUCT INFORMATION SHEET

 <small>GIRAITĖS GINKLUOTĖS GAMYKLA PASSION. PERFORMANCE. PRECISION.</small>	5.56x45 NATO Ball ammunition			CALIBER: 5.56x45	SHEET: 1/4
	DRAWN BY: N.Račiūnienė	CHECKED BY: R.Bendaravičius	DATE: 20/02/2018	556 PIS GP21	

**ELECTRONIC PRESSURE, VELOCITY AND ACTION TIME (EPVAT), KIAG 6215
PRESSURE TRANSDUCER**

Ammunition temperature	21 °C	+ 52 °C	- 54 °C
Velocity at 24 m, m/s	$\bar{V} = 911 \pm 15$	$- 80 \leq \bar{V}_{+52^{\circ}\text{C}} - \bar{V}_{21^{\circ}\text{C}} \leq + 50$	$- 80 \leq \bar{V}_{-54^{\circ}\text{C}} - \bar{V}_{21^{\circ}\text{C}} \leq + 50$
Case mouth pressure, bar	$\bar{P} + 3 \text{ SD} \leq 4450$	$-1100 \leq \bar{P}_{+52^{\circ}\text{C}} - \bar{P}_{21^{\circ}\text{C}} \leq +550$ $\bar{P}_{+52^{\circ}\text{C}} \leq 4550$	$-1100 \leq \bar{P}_{-54^{\circ}\text{C}} - \bar{P}_{21^{\circ}\text{C}} \leq +550$ $\bar{P}_{-54^{\circ}\text{C}} \leq 4550$
Port pressure, bar	$\bar{P} - 3 \text{ SD} \geq 1030$	$-150 \leq \bar{P}_{+52^{\circ}\text{C}} - \bar{P}_{21^{\circ}\text{C}} \leq +150$ $\bar{P}_{+52^{\circ}\text{C}} - 3 \text{ SD} \geq 1030$	$-150 \leq \bar{P}_{-54^{\circ}\text{C}} - \bar{P}_{21^{\circ}\text{C}} \leq +150$ $\bar{P}_{-54^{\circ}\text{C}} \geq 1030$
Action time, ms	-	-	$\bar{T} + 5 \text{ SD} \leq 3$
Muzzle energy, J	$E \geq 1564$	-	-
Bullet energy at 24 m, J	$E \geq 1480$	-	-

\bar{V} = corrected mean velocity


\bar{P} = corrected mean pressure

PRECISION at distance 550 m	Horizontal standard deviation		Vertical standard deviation
	$\leq 200 \text{ mm}$		$\leq 200 \text{ mm}$
FUNCTION AND CASUALTY	Permissible percentage of defects was not exceeded		
TRAJECTORY MATCH	Vertical match		Horizontal match
At distance 300 m	$\leq 125 \text{ mm}$		$\leq 175 \text{ mm}$
At distance 550 m	$\leq 275 \text{ mm}$		$\leq 385 \text{ mm}$
TERMINAL EFFECTS at distance 570 m Perforations Mild steel plate Aluminium witness screen (0,5 m behind steel plate)	$\geq 90 \%$ 3,5 mm (SAE 1010 / 1020, hardness RB 55-70) 0,5 mm 2024T3		
PRIMER SENSITIVITY	Test ball	$\bar{H} + 5 \text{ SD}$	$\bar{H} - 2 \text{ SD}$
Critical height method (run-down)	$\text{Ø } 30 \text{ mm}$ (111,7 ± 0,57) g	$\leq 450 \text{ mm}$	$\geq 75 \text{ mm}$
WATERPROOF TEST Vacuum pressure not less 50 KPa Time not less 30 s	No more than 15% leaky rounds		

MARKING

Minimum marking of cartridge and its packaging is done in accordance with STANAG 2953 (AOP - 2C):

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- Stamped on the base of cartridge case:

- NATO design mark
- Manufacturer's initials
- Caliber
- Last two digits of year of manufacture

- Marking on the internal carton box:

- Quantity of cartridges in the box
- Caliber
- Type of bullet
- Lot number
- NATO design mark
- Recycle marks of manufacturer

- Marking on the external carton or metal box:

- NATO stock number (NSN)
- Quantity of cartridges in the box
- Type of bullet
- Caliber
- NATO design mark
- Lot number
- Net weight
- Net explosive quantity
- Gross weight
- Volume
- Proper chipping name
- Certification number of the outer box
- UN number
- Explosive hazard orange mark
- Recycle marks of package
- Serial number label of box


PACKAGING

5.56x45 cartridges supplied in either outer carton or metal M2A1 boxes which are palletized. The boxes and pallets should be marked according to the requirements of the customer.

2. Table. Cartridges packaging and units

Number of packing option	Palletization option	PACKING OPTION	UNITS			
			Quantity of cartridges	Dimension, mm	Net weight, kg	Gross weight, kg
NSN 1305-47-000-1193						
1		Internal carton box	50	97 x 58 x 43,5	-	0,6
		External Metal box M2A1	1000	305,6 x 154,8 x 190,5	12,0	15,0
	1.1	EUR pallet	48000	920x1250x520	576,0	749,0
	1.2	EUR pallet	56000	1080x1250x520	672,0	873,0

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Number of packing option	Palletization option	PACKING OPTION	UNITS			
			Quantity of cartridges	Dimension, mm	Net weight, kg	Gross weight, kg
2		Internal carton box	50	97 x 58 x 43,5	–	0,6
		External carton box	1200	321x154x183	14,4	15,0
	2.1	EUR pallet	76800	800x1200x900	921,0	989,0
	2.2	Strengthened EUR pallet	84000	1000x1200x810	1008,0	1117,0

SHIPPING AND DATA

Proper shipping name – Cartridges for weapons, inert projectile
 Hazard classification code – 1.4 S
 UN serial number – UN 0012

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	DRAWN BY: N.Račiūnienė	CHECKED BY: R.Bendaravičius	DATE: 20/02/2018	556 PIS GP21 00	