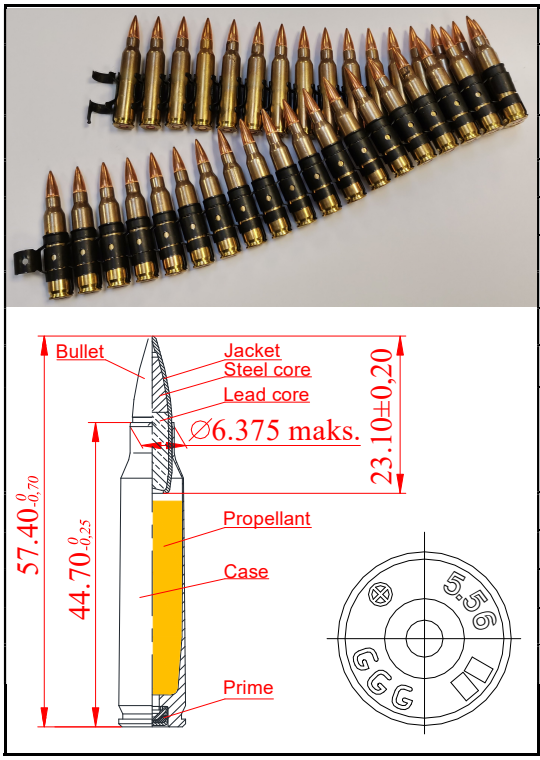
Link Belt 5.56x45 NATO Ball Ammunition

GENERAL INFORMATION

Link belt 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 AEP-97, AC/225(LG/3-SG/1)D/8, PFP(NAAG-LG/3-SG/1)D(2004)1. NATO Design Number is AC/225 – 130A.
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: Light machine gun – MINIMI and other NATO nominated machine guns, also cartridges can be used with Assault rifles – FNC, M16A2, H&K G36, BERETTA AR 70/90, L85A2 if cartridges are not linked;

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 - 0,70
Total weight	g	11,85±0,45
Bullet	type	Ball
Bullet weight	gr	62
	g	4,00 ± 0,1
Bullet lenght	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
Link	type	M27
Propellant	type	Double base, smokeless
Primer	type	BOXER
		Percussion, non corrosive, non mercuric

BALLISTIC PROPERTIES

Compatibility: STANAG 4172, AEP-97, 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 ^{0}C.

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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	$\overline{V}$ = 911 ± 15	- 80 ≤ $\overline{V}$ $_{+52°C}$ - $\overline{V}$ $_{21°C}$ ≤ + 50	- 80 ≤ $\overline{V}$ $_{-54°C}$ - $\overline{V}$ $_{21°C}$ ≤ + 50
Case mouth pressure, bar	$\overline{P}$ + 3 SD ≤ 4450	-1100 ≤ $\overline{P}$ $_{+52°C}$ - $\overline{P}$ $_{21°C}$ ≤ +550 $\overline{P}$ $_{+52°C}$ ≤ 4550	-1100 ≤ $\overline{P}$ $_{-54°C}$ - $\overline{P}$ $_{21°C}$ ≤ +550 $\overline{P}$ $_{-54°C}$ ≤ 4550
Port pressure, bar	$\overline{P}$ - 3 SD ≥ 1030	-150 ≤ $\overline{P}$ $_{+52°C}$ - $\overline{P}$ $_{21°C}$ ≤ +150 $\overline{P}$ $_{+52°C}$ - 3 SD ≥ 1030	-150 ≤ $\overline{P}$ $_{-54°C}$ - $\overline{P}$ $_{21°C}$ ≤ +150 $\overline{P}$ $_{-54°C}$ ≥ 1030
Action time , ms	–	–	$\overline{T}$ +5 SD ≤ 3
Muzzle energy, J	E ≥ 1564	–	–
Bullet energy at 24 m, J	E ≥ 1480	–	–

$\overline{V}$ = corrected mean velocity
$\overline{P}$ = corrected mean pressure

PRECISION at distance 550 m	Horizontal standard deviation	Vertical standard deviation	
	⩽ 200 mm	⩽ 200 mm	
FUNCTION AND CASUALTY	Permissible percentage of defects was not exceeded		
TRAJECTORY MATCH	Vertical match	Horizontal match	
At distance 300 m At distance 550 m	⩽ 125 mm ⩽ 275 mm	⩽ 175 mm ⩽ 385 mm	
TERMINAL EFFECTS at distance 570 m Perforations Mild steel plate Aluminium witness screen (0,5 m behind steel plate)	⩾ 90 % 3,5 mm (SAE 1010 / 1020, hardness RB 55–70) 0,5 mm 2024T3		
PRIMER SENSITIVITY	Test ball	$\overline{H}$ + 5 SD	$\overline{H}$ – 2 SD
Critical height method (run-down)	Ø 30 mm (111,7 ± 0,57) g	⩽ 450 mm	⩾ 75 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 metal box:

- Quantity of cartridges in the box
- Type of bullet
- Mark of cartridges assembly to link belt
- Type of link
- 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 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**
1		Link belt	200	–	–	–
		External Metal box M2A1	800	305,6x154,8x190,5	11,5	14,0
	1.1	EUR pallet	38400	920x1250x520	552,0	701,0
	1.2	EUR pallet	44800	1080x1250x520	644,0	817,0

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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