# 5.56 x 45 mm



NATO-qualified cartridge equivalent to M855 and SS109. Suitable for weapons with 1:7 to 1:9 barrel twist, may also be offered linked with any other trajectory-matched cartridges, such as Tracer, IR Tracer and SAT, in different configurations.

## NATO BALL

NORMATIVE REFERENCE	TIP IDENTIFICATION	PROJECTILE TYPE	PROJECTILE WEIGHT	VELOCITY AT 24 m 1 2
NATO AEP-97 ED A V1	NONE	BALL	4.00 g / 62 gr	915 m/s / 3002 ft/s
ENERGY AT 24 m	CASE	SERVICE TEMPERATURE	SAFETY TEMPERATURE	BARREL TWIST
1675 J	BRASS	-54°C to +52°C -65°F to +125°F	-54°C to +71°C -65°F to +160°F	TW7



NATO standard tracer cartridge equivalent to M856 and L110, with full luminosity trace up to 600 m from the muzzle, visible in both day and night. Suitable for 5.56 x 45 mm weapons with a 1:7 to 1:9 barrel twist. May also be offered linked with any other trajectory-matched cartridges, such as Ball and/or SAT versions, in different configurations.

# NATO TRACER

NORMATIVE REFERENCE	TIP IDENTIFICATION	PROJECTILE TYPE	PROJECTILE WEIGHT	VELOCITY AT 24 m 1 2
NATO AEP-97 ED A V1	RED	TRACER	4.00 g / 62 gr	AS PER REFERENCE AMMUNITION
ENERGY AT 24 m	CASE	SERVICE TEMPERATURE	SAFETY TEMPERATURE	BARREL TWIST
≥ 1480 J	BRASS	-54°C to +52°C -65°F to +125°F	-54°C to +71°C -65°F to +160°F	TW7



IR Tracer cartridges are meant for night operations, granting the combat forces a stealth advantage. The bullet trace is completely invisible to the naked eye and only visible with the use of Night Vision Devices (NVDs). Suitable for 5.56 x 45 mm weapons with 1:7 to 1:9 barrel twist. May also be offered linked with other trajectory-matched cartridges, such as Ball and/or SAT versions, in different configurations.

# INFRARED TRACER LEARN MORE ON PAGE 30

NORMATIVE REFERENCE	TIP IDENTIFICATION	PROJECTILE TYPE	PROJECTILE WEIGHT	VELOCITY AT 24 m 1 2
NATO AEP-97 ED A V1	LILAC	INFRARED TRACER	3.97 g / 61 gr	AS PER REFERENCE AMMUNITION
ENERGY AT 24 m	CASE	SERVICE TEMPERATURE	SAFETY TEMPERATURE	BARREL TWIST
≥ 1526 J	BRASS	-54°C to +52°C -65°F to +125°F	-54°C to +71°C -65°F to +160°F	TW7



Improved performance cartridge suitable for  $5.56 \times 45$  mm weapons with 1:7 to 1:9 barrel twist. It combines superior hard target penetration with better terminal effects than conventional 5.56 NATO Ball version. Loaded with a lead-free projectile, the 5.56 SAT provides more lethality at close-and-long-range engagements, up to 600 meters. May also be offered linked with trajectory-matched cartridges, such as Ball, Tracer and IR-Tracer, in different configurations.

#### SAT IMPROVED PERFORMANCE LEARN MORE ON PAGE 32

NORMATIVE REFERENCE	TIP IDENTIFICATION	PROJECTILE TYPE	PROJECTILE WEIGHT	VELOCITY AT 24 m 1 2
NATO AEP-97 ED A V1	NONE	STEEL ARROW TIP (SAT)	4.0 g / 62 gr	900 m/s / 2953 ft/s
ENERGY AT 24 m	CASE	SERVICE TEMPERATURE	SAFETY TEMPERATURE	BARREL TWIST
1620 J	BRASS	-54°C to +52°C -65°F to +125°F	-54°C to +71°C -65°F to +160°F	TW7

Standard Ball cartridge equivalent to M193. Suitable for weapons with 1:12 barrel twist, may be offered linked with Tracer version (M196).

#### BALL M193

MILITARYAMMUNITION

NORMATIVE REFERENCE	TIP IDENTIFICATION	PROJECTILE TYPE	PROJECTILE WEIGHT	VELOCITY AT 24 m 1 2
MIL-C-9963F	NONE	BALL	3.56 g / 55 gr	965 m/s / 3165 ft/s
ENERGY AT 24 m	CASE	SERVICE TEMPERATURE	SAFETY TEMPERATURE	BARREL TWIST
1658 J	BRASS	-54°C to +52°C -65°F to +125°F	-54°C to +71°C -65°F to +160°F	TW12

#### TRACER M196

NORMATIVE REFERENCE	TIP IDENTIFICATION	PROJECTILE TYPE	PROJECTILE WEIGHT	VELOCITY AT 24 m 1 2
MIL-C-60111C	RED	TRACER	3.35 g / 52 gr	AS PER REFERENCE AMMUNITION
ENERGY AT 24 m	CASE	SERVICE TEMPERATURE	SAFETY TEMPERATURE	BARREL TWIST
≥ 1512 J	BRASS	-54°C to +52°F -65°C to +125°F	-54°C to +71°F -65°C to +160°F	TW12



M193, in different configurations.

Standard Blank training cartridge equivalent to M200, may be used in standard and shorter magazines. Used with Blank Firing Attachment, it can be adjusted to all automatic weapons to provide consistent and reliable functioning.

Standard tracer cartridge equivalent to M196, with full luminosity trace

up to 450 m from the muzzle, visible in both day and night. Suitable for

weapons with 1:12 barrel twist. May also be offered linked with 5.56 Ball

### BLANK SHORT

NORMATIVE	STAR	CARTRIDGE	CARTRIDGE	CASE	SERVICE
REFERENCE	CRIMP	LENGTH	WEIGHT		TEMPERATURE
MIL-C-60616	6	48.5 mm / 1.91 inch	7.25 g / 112 gr NOMINAL	BRASS	-32°C to +52°C -26°F to +125°F



Standard Blank training cartridge equivalent to M51, may be used in standard and shorter magazines. Used with Blank Firing Attachment, it can be adjusted to all automatic weapons to provide consistent and reliable functioning.

#### **BLANK INTERMEDIARY**

NORMATIVE	STAR	CARTRIDGE	CARTRIDGE	CASE	SERVICE
REFERENCE	CRIMP	LENGTH	WEIGHT		TEMPERATURE
MIL-C-60616	6	51 mm / 2 inch	7.6 g / 117 gr NOMINAL	BRASS	-32°C to +52°C -26°F to +125°F



Standard Blank cartridge for training. Used with Blank Firing Attachment, it can be adjusted to all automatic weapons to provide consistent and reliable functioning.

#### **BLANK LONG**

NORMATIVE	STAR	CARTRIDGE	CARTRIDGE	CASE	SERVICE
REFERENCE	CRIMP	LENGTH	WEIGHT		TEMPERATURE
MIL-C-60616	4	56 mm / 2.2 inch	7.7 g / 119 gr NOMINAL	BRASS	-32°C to +52°C -26°F to +125°F

<sup>&</sup>lt;sup>1</sup> Temperature: 21°C (70°F) | <sup>2</sup> Test Barrel Length: 508 mm (20")



