



# Small Arms Ammunition 5.56mm and 7.62mm

Proven reliability with superior performance

**BAE SYSTEMS**

## About Us

At BAE Systems, we provide some of the world's most advanced, technology-led defence, aerospace and security solutions. We employ a skilled workforce of 90,500 people in more than 40 countries.

In an age of increasing change and uncertainty, where threats are escalating, technology is playing an essential part in our lives. Our role is critical in helping our customers and partners stay ahead as challenges and opportunities change. This takes many forms: from innovations which provide military advantage, to services and support solutions which maintain and enhance military assets.

## Why Us?

We are proud to equip the British Armed Forces and international customers with a range of products, including:

- Small arms ammunition
- Medium calibre ammunition
- Mortar ammunition
- Artillery ammunition
- Naval ammunition
- Warheads and payloads

Our munitions have been proven in every possible environment, over many decades, with our specialist engineers working in partnership with our customers, to continually make performance improvements.

## Our Small Arms Ammunition

We can produce over one million rounds per day of small arms ammunition in 5.56mm and 7.62mm NATO calibres, including: ball, tracer and blank rounds.

As the British Army's partner of choice since the 1940s, we are trusted to provide high volumes of precision rounds that soldiers know they can rely on.

Our engineers have developed new 5.56mm and 7.62mm rounds which can increase effective range and armour penetration, whilst remaining fully NATO compliant.

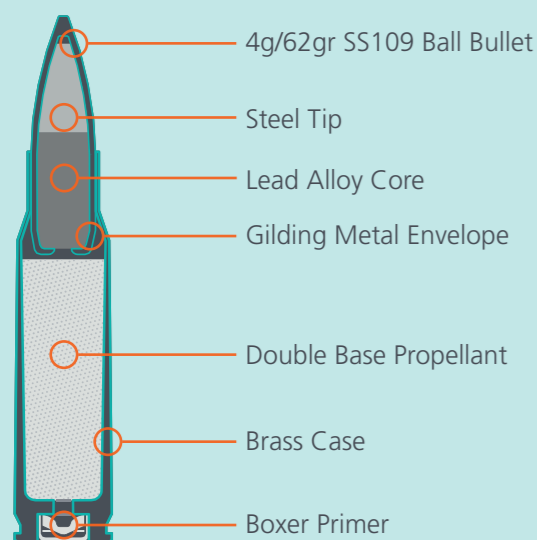
We are also currently designing new, light weight case ammunition that will reduce the weight burden and improve performance.

## Our 5.56 x 45mm Ammunition

### L15 Ball

- We supply this nature of NATO-qualified ammunition to Armed Forces throughout the world
- Known as the SS109, this has a hardened steel tip and lead alloy core
- Various packaging configurations are available, including carton, linked and clipped

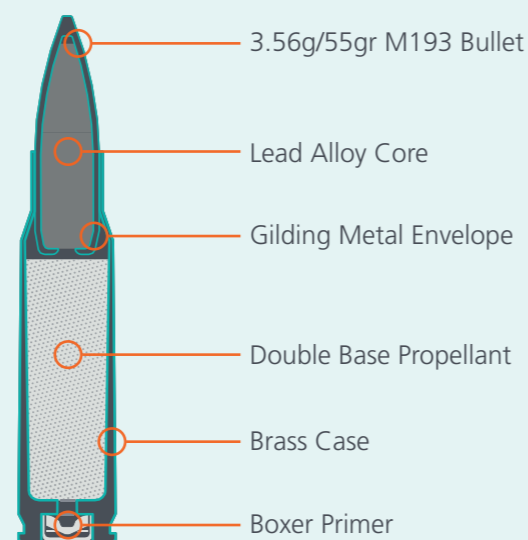
|  |   |
|--|---|
| <b>Bullet weight</b>                         | 4g/62gr   |
| <b>Cartridge weight</b>                      | 12g   |
| <b>Bullet</b>                                | Lead Alloy Core / Steel Tip   |
| <b>Velocity</b>                              | 917m/s (24m from muzzle)  |
| <b>Consistency</b>                           | ≥ 70% hit probability (Rectangular target 350mm x 350mm at 550m range)<br>Equivalent to horizontal and vertical st. dev. of less than 125mm at 550m |
| <b>Trajectory matching</b>                   | Trajectory matched to NATO reference cartridge at 300m and 550m   |
| <b>Temperature range for weapon function</b> | -54°C to +52°C  |
| <b>Primer type</b>                           | Boxer - Non Corrosive   |



### M193 Ball

- The original 5.56mm Ball bullet, the M193, is based on a traditional lead-core design
- The lighter 3.56g bullet is favoured by some armed forces depending on their choice of assault rifle and is available with the same packaging options as the L15 Ball
- Designed and manufactured to STANAG 4172 requirements, the M193 round will perform flawlessly in conditions ranging from arid desert to sub-zero Arctic environments

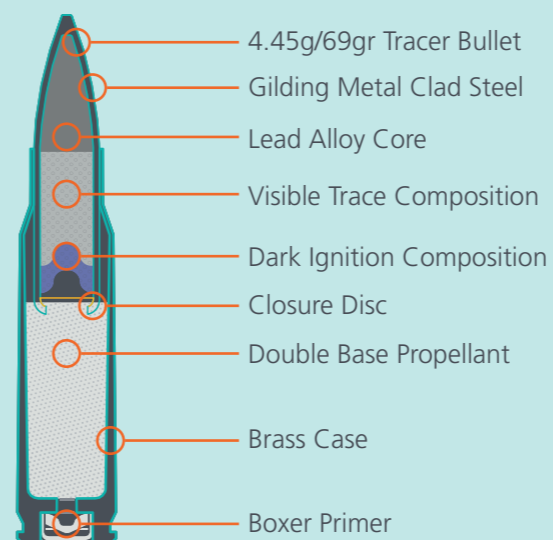
|  |  |
|--|--|
| <b>Bullet weight</b>                         | 3.56g/55gr   |
| <b>Cartridge weight</b>                      | 11.7g  |
| <b>Bullet</b>                                | Lead Alloy Core  |
| <b>Velocity</b>                              | 965m/s (24m from muzzle)   |
| <b>Consistency</b>                           | Combined horizontal and vertical st. dev. of shot distribution, at 500m range, shall not exceed 120mm, nor exceed 180mm for any individual target (When using an accuracy barrel with rifling twist of 1 in 12 inches) |
| <b>Temperature range for weapon function</b> | -54°C to +52°C   |
| <b>Primer type</b>                           | Boxer - Non Corrosive  |



### L16 Tracer

- Our NATO-qualified L16 Tracer round provides a highly accurate ballistic trace for assault rifles and fully-automatic belt-fed weapons
- It is most commonly used in 4-to-1 or 1-to-1 ratios and is highly visible in both day and night
- It also features a tracer delay composition to conceal the location of the shooter

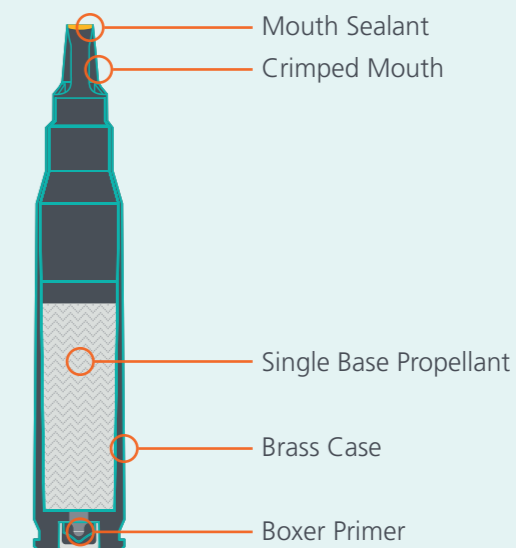
|  |   |
|--|---|
| <b>Bullet weight</b>                         | 4.45g/69gr  |
| <b>Cartridge weight</b>                      | 12.25g  |
| <b>Bullet</b>                                | Lead Alloy Core / Tracer Comp.  |
| <b>Velocity</b>                              | 872m/s (24m from muzzle)  |
| <b>Consistency</b>                           | ≥ 70% hit probability (Rectangular target 650mm x 650mm at 550m range)<br>Equivalent to horizontal and vertical st. dev. of less than 220mm at 550m |
| <b>Trajectory matching</b>                   | Trajectory matched to NATO reference cartridge at 300m and 550m   |
| <b>Tracer performance</b>                    | Invisible for 13m min. from the muzzle. Continuous visible trace beginning at 140m max. and continuing for 600m min. from the muzzle                |
| <b>Temperature range for weapon function</b> | -54°C to +52°C  |
| <b>Primer type</b>                           | Boxer - Non Corrosive   |



### L18 Blank

- This Blank ammunition has an extended case, simulating the form of the bullet round
- Blank training ammunition can be supplied in a variety of configurations to suit customer requirements

|  |                       |
|--|-----------------------|
| <b>Cartridge weight</b>                      | 7.72g                 |
| <b>Temperature range for weapon function</b> | -20°C to +40°C        |
| <b>Primer type</b>                           | Boxer - Non Corrosive |

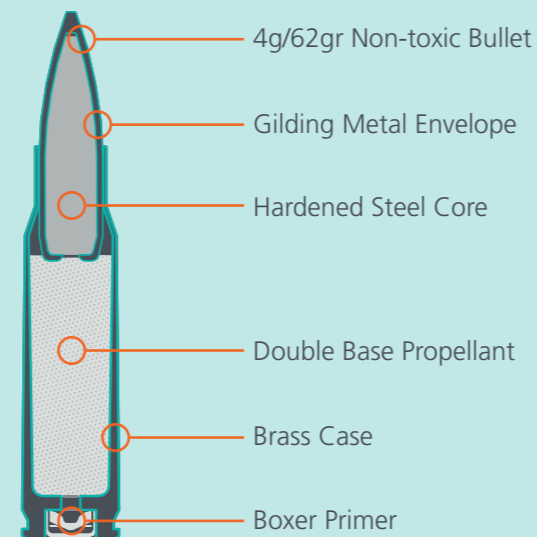




### L31 Enhanced Performance (EP) Ball

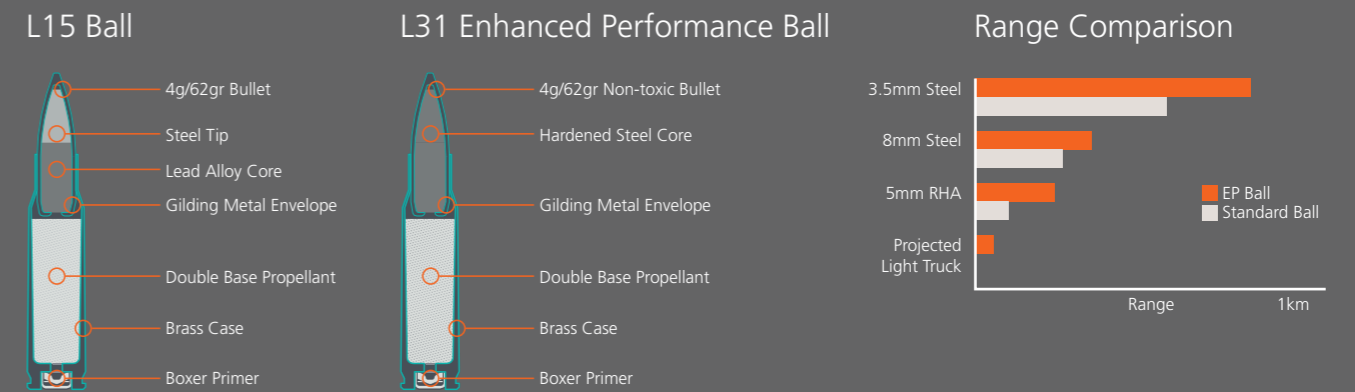
- This 5.56mm round delivers enhanced penetration, range and lethality
- A lead-free bullet compatible with all 5.56mm NATO weapons
- For use with existing weapons, delivering enhanced performance

|  |   |
|--|---|
| <b>Bullet weight</b>                         | 4g/62gr   |
| <b>Cartridge weight</b>                      | 12g   |
| <b>Bullet</b>                                | Hardened Steel Core   |
| <b>Velocity</b>                              | 911m/s (24m from muzzle)  |
| <b>Consistency</b>                           | ≥ 70% hit probability (Rectangular target 350mm x 350mm at 550m range)<br>Equivalent to horizontal and vertical st. dev. of less than 125mm at 550m |
| <b>Trajectory matching</b>                   | Trajectory matched to NATO reference cartridge at 300m and 550m   |
| <b>Temperature range for weapon function</b> | -54°C to +52°C  |
| <b>Primer type</b>                           | Boxer - Non Corrosive   |



### Comparing Standard and Enhanced Performance Ammunition

Our L31 Enhanced Performance (EP) Ball ammunition can penetrate armour at greater ranges, giving troops a significant tactical advantage

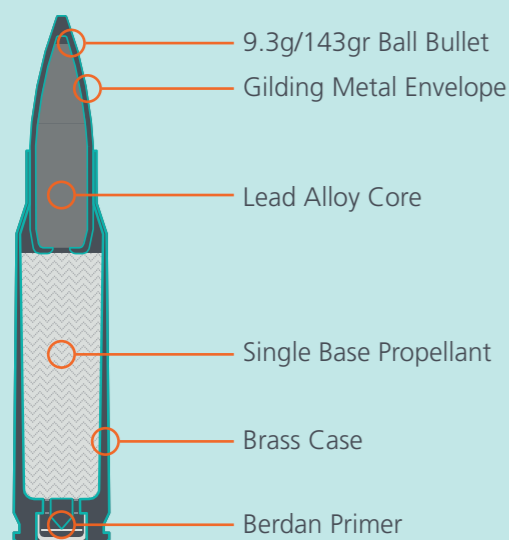


## Our 7.62 x 51mm Ammunition

### L44 Ball

- We supply this NATO-qualified ammunition to armed forces worldwide
- This product provides exceptional accuracy, consistency and reliability

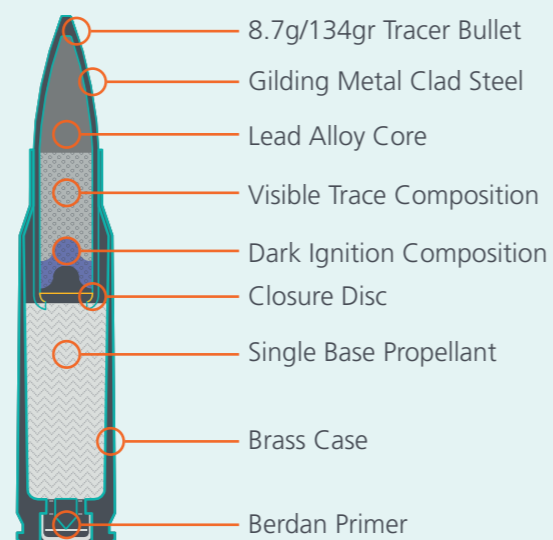
|  |  |
|--|--|
| <b>Bullet weight</b>                         | 9.3g/143gr   |
| <b>Cartridge weight</b>                      | 24g  |
| <b>Bullet</b>                                | Lead Alloy Core  |
| <b>Velocity</b>                              | 830m/s (24m from muzzle)   |
| <b>Consistency</b>                           | ≥ 70% Hit probability (rectangular target 350mm x 350mm at 550m range)<br>Equivalent to horizontal and vertical st. dev of less than 125mm at 500m |
| <b>Trajectory matching</b>                   | Trajectory matched to NATO reference cartridge at 300m and 550m  |
| <b>Temperature range for weapon function</b> | -54°C to +52°C   |
| <b>Primer type</b>                           | Berdan - Non Corrosive   |



### L45 Tracer

- Our NATO-qualified 7.62mm Tracer is ballistically matched to the L44 Ball and the L59 High Performance (HP) Ball
- It also features a tracer delay composition to conceal the location of the shooter

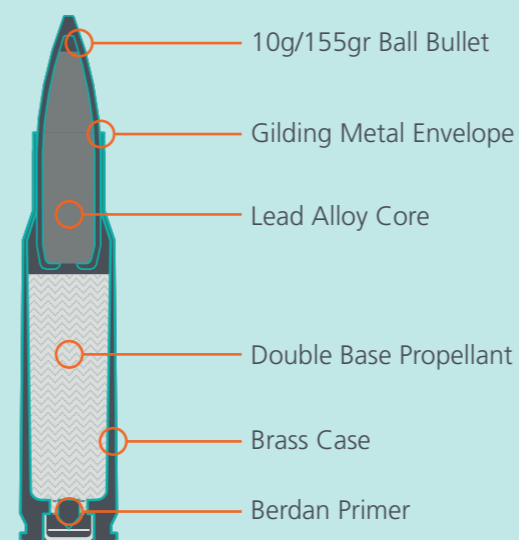
|  |   |
|--|---|
| <b>Bullet weight</b>                         | 8.7g/134gr  |
| <b>Cartridge weight</b>                      | 23g   |
| <b>Bullet</b>                                | Lead Alloy Core / Tracer Comp.  |
| <b>Velocity</b>                              | 828m/s (24m from muzzle)  |
| <b>Consistency</b>                           | ≥ 70% Hit probability (rectangular target 650mm x 650mm at 550m range)<br>Equivalent to horizontal and vertical st. dev of less than 220mm at 500m                              |
| <b>Trajectory matching</b>                   | Trajectory matched to NATO reference cartridge at 300m and 550m   |
| <b>Tracer performance</b>                    | Invisible for 13m min. from the muzzle. Continuous visible trace shall begin at a distance not greater than 140 metres and continue to a distance of 914 metres from the muzzle |
| <b>Temperature range for weapon function</b> | -54°C to +52°C  |
| <b>Primer type</b>                           | Berdan - Non Corrosive  |



### L42 Sniper

- The sniper ammunition is designed for use where long range accuracy is of major importance
- This round that is supplied to the British Army Combat Shooting Team for use in international events, as well as to British Army Sharpshooter users
- It uses a 10 gram (155 grain) Full Metal Jacket bullet with a solid lead alloy core, providing excellent accuracy at long ranges
- Sniper ammunition is suitable for use in bolt-action and semi-automatic sniper rifles
- The Sniper round is designed to stringent UK specifications which exceed the requirements of NATO STANAG 2310, providing outstanding performance and reliability

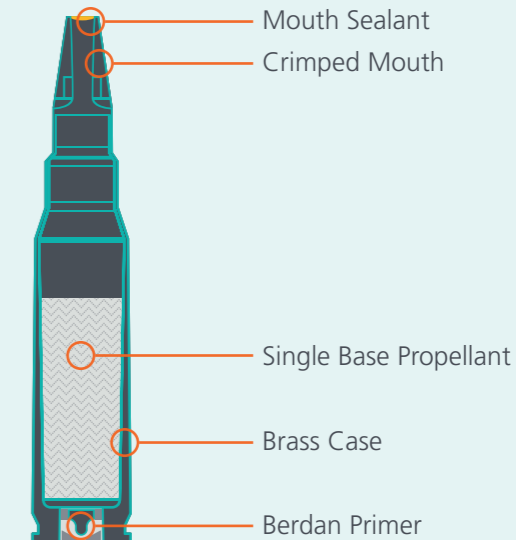
|  |  |
|--|--|
| <b>Bullet weight</b>                         | 10g/155gr  |
| <b>Cartridge weight</b>                      | 24g  |
| <b>Bullet</b>                                | Lead Alloy Core  |
| <b>Velocity</b>                              | 845m/s (24m from muzzle)   |
| <b>Consistency</b>                           | ≥ 94% Hit Probability (rectangular target 250mm x 250mm at 550m range) |
| <b>Temperature range for weapon function</b> | -54°C to +52°C   |
| <b>Primer type</b>                           | Berdan - Non Corrosive   |

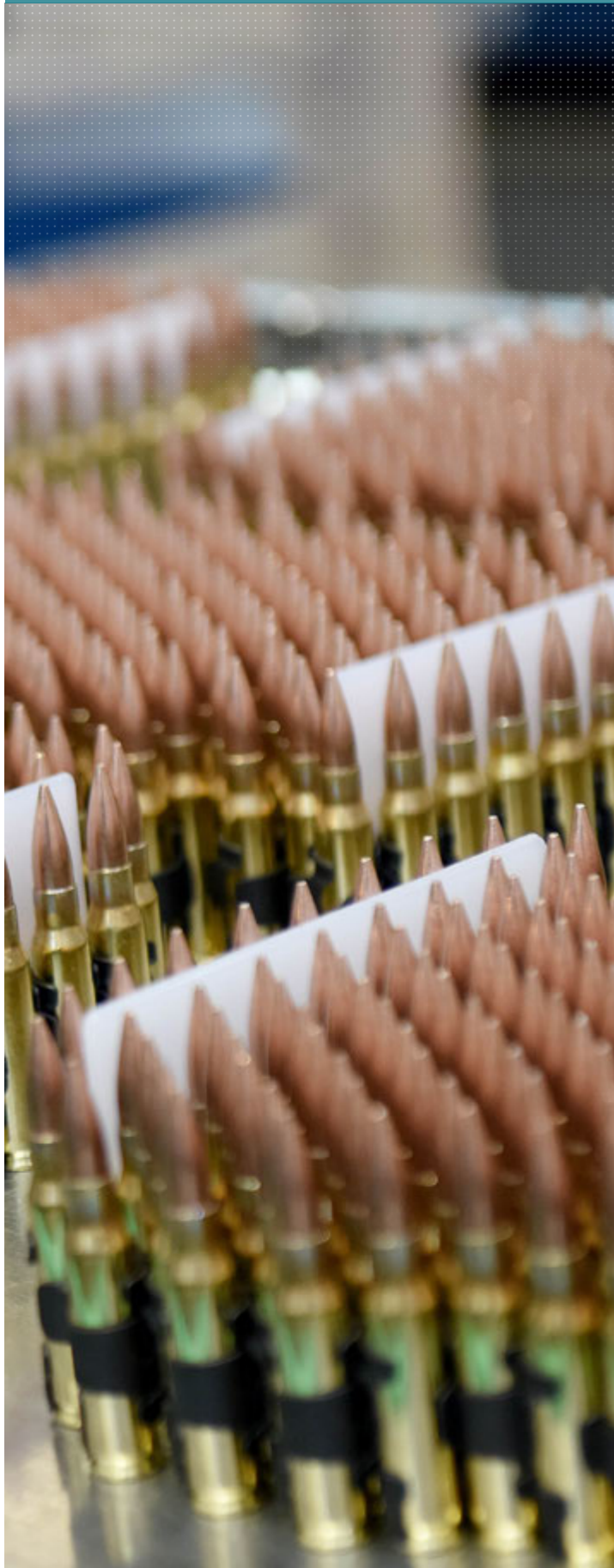


### L43 Blank

- This Berdan primed Blank ammunition has an extended case, simulating the form of the bullet round
- Blank training ammunition can be supplied in a variety of configurations to suit customer requirements

|  |                        |
|--|------------------------|
| <b>Cartridge weight</b>                      | 12.6g                  |
| <b>Temperature range for weapon function</b> | -20°C to +40°C         |
| <b>Primer type</b>                           | Berdan - Non Corrosive |

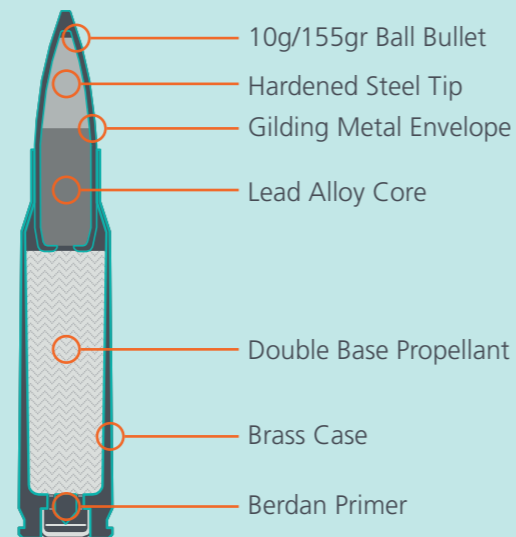




### L59 High Performance (HP) Ball

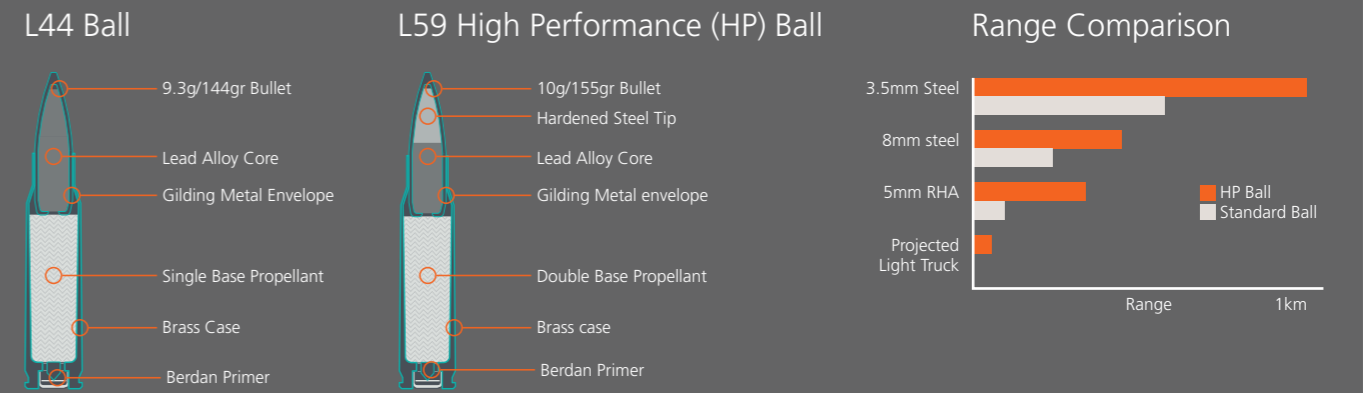
- Our premier NATO-qualified 7.62mm High Performance (HP) round gives superior range, accuracy and firepower
- It is available in a variety of configurations to suit assault/sharpshooter rifles, machine guns or rotary fire weapons

|  |  |
|--|--|
| <b>Bullet weight</b>                         | 10g/155gr  |
| <b>Cartridge weight</b>                      | 24g  |
| <b>Bullet</b>                                | Hardened Steel Tip / Lead Alloy Core   |
| <b>Velocity</b>                              | 825m/s (24m from muzzle)   |
| <b>Consistency</b>                           | ≥ 70% Hit Probability (rectangular target 350mm x 350mm at 550m range)<br>Equivalent to horizontal and vertical st. dev of less than 125mm at 550m |
| <b>Trajectory matching</b>                   | Trajectory matched to NATO reference cartridge at 300m and 550m  |
| <b>Temperature range for weapon function</b> | -54°C to +52°C   |
| <b>Primer type</b>                           | Berdan - Non Corrosive   |



### Comparing Standard and High Performance Ammunition

Our L59 High Performance (HP) Ball ammunition can penetrate armour at greater ranges, giving troops a significant tactical advantage



### Engineering the Future

Staying one-step ahead of the enemy is key on the modern battlefield. Having the right equipment, in the right place, at the right time is essential to provide advantage.

Our world-class scientists and engineers are continually pushing the boundaries, to deliver a tactical edge.

We provide the highest quality, cutting-edge products, to equip those who protect us.

Visit our website for latest news,  
updates and information



**Registered company:**

BAE Systems Global Combat Systems Munitions Ltd

This publication is issued to provide outline information only. No advice given or statements or recommendations made shall in any circumstances constitute or be deemed to constitute a warranty or representation by BAE Systems as to the accuracy or completeness of such advice, statements or recommendations. BAE Systems shall not be liable for any loss, expense, damage or claim howsoever arising out of the advice given or not given or statements made or omitted to be made in connection with this document. No part of this document may be copied, reproduced, adapted or redistributed in any form or by any means without the express prior written consent of BAE Systems.

© 2023 BAE SYSTEMS. All rights reserved. BAE SYSTEMS is a registered trademark of BAE Systems Plc.

Images © Crown Copyright 2023  
Images © BAE Systems  
CM336823.01.v02