SPECIFICATION FOR SUPPLY

9mm BERDAN M561A1 PRIMERS

1. SCOPE

This specification details the supply requirements of 9mm Berdan M561A1 Primers used as a propellant igniter in 9mm ammunition.

2. DESCRIPTION

This is a mechanical primer consisting of a brass cup (70/30), a brass anvil, a Lead Styphnate based, non-corrosive priming composition and a paper closing disc sealed with a lacquer / varnish.

3. PHYSICAL CHARACTERISTICS AND PERFORMANCE

The primers need to comply with the following physical characteristics and performance requirements:

3.1 Physical Characteristics

Characteristic	Specification
Outside diameter	$4.55\ ^{+0.01}_{-0.03}$ mm
Bottom thickness	COA
Cup Height	COA
Overall length	$2.36\ ^{-0.2}$ mm
Priming mass	COA

3.2 Performance requirements

3.2.1 Sensitivity (Rundown method)

All Primers shall function after a ball with a mass of 55g is dropped from a height of 254mm onto a firing pin striking its base.

3.2.2 Insensitivity (Rundown method)

No cap shall function after a ball with a mass of 55g is dropped from a height of 76mm onto a firing pin striking its base.

3.2.3 Shot time (T4) and Ignition delay time (T2)

The individual shot time value of cartridges conditioned at +21ºC ±2ºCshall not exceed 4 milliseconds, or 10 milliseconds at -40°C ±3°C.

4. LOT IDENTIFICATION

The lot size shall not exceed 500 000. Each lot of primers shall be identified by a lot number and the type and calibre. The Lead Styphnate shall be the lot component and may not be used in more than one lot of primers. The COA shall specify this.

5. WORKMANSHIP

A tightened sample as indicated in MIL-STD-105 shall be applied.
The primers shall be free from the following defects:

No.	Description of Defects	Classification
1	Mixed types (Berdan/Boxer)	Major A
2	No anvil	Major A
3	No composition	Major A
4	Deformed caps and cracks	Major A
5	Inverted, sideways or turned anvil	Major A
6	Double or loose anvils	Major A
7	Corrosion on cup or anvil	Major B
8	No closing disc	Major B
9	Damaged closing disc	Major B
10	Loose closing disc	Major B
11	Dense, draw marks or deep drawn scratches	Major B
12	Excessive varnish	Major B
13	Overall length exceeds max or min	Major B
14	Outside diameter exceeds max or min	Major B
15	Mixed calibres	Major B
16	Spilly metal	Major B
17	Double or multiple closing discs	Major B
18	Overall length exceeds max or min	Minor
19	Outside diameter exceeds max or min	Minor
20	Ragged closing disc	Minor
21	Metal on closing disc	Minor
22	Surface scratches	Minor
23	Dirty or tarnished cups	Minor
24	Poor varnishing	Minor
25	Slipped closing discs	Minor
26	Loose composition	Minor

6. PACKING

The primers shall be packed in such a way that the primers are properly sealed without compromising the integrity of the contents and no damage to the outside and inside containers will be allowed to ensure no spillage of primers.
No incorrect, misleading, defective or unidentifiable markings are acceptable.

7. DOCUMENTATION REQUIREMENTS

During Tendering

An original Specification sheet of the intended primers to be offered, together with the original manufacturers name and address shall be supplied with the tender.

During delivery

A Certificate of Conformance shall state that the whole consignment was subjected to planned close control of all supply and manufacturing activities and have been inspected and tested in accordance with this specification (as stated in point 3) by the original manufacturer to ensure compliance and the results thereof shall accompany the COC.
A copy of the priming mass record shall be forwarded to the Acceptance authority upon request.

8. OTHER REQUIREMENTS

Should a Tenderer not be able to meet the requirements of this document, the details must be declared in writing during the tender phase.
If the Tenderer is not the original manufacturer, the details of the intended manufacturer shall be declared and the details mentioned in point 7 shall apply.

The provided specification sheet will be evaluated during the tender phase and if it is found to be acceptable, a sample of 800 primers must be submitted for ballistic evaluation and testing, before any order can be placed.

Compiled by:

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