

Annexure 'A'

Specification of Ampoule Reserve Battery

SR NO.	Parameter	Value
1	Dimension (mm)	Φ32 × h23
2	Open Voltage (V)	≥ 36V
3	Current (mA)	Max. 200mA
4	Activation Time (s)	≤0.4s, @100mA, 20V
5	Functional Time, Capacity	≥200s, @100mA, 25V
6	Weight (gm)	≤ 46
7	Activation Gravity	≥ 1,500G
8	Shock Resistance	-
9	Typical shelf life	Over 20years
10	Operational Temperature	-43°C ~ +63°C
11	Storage Temperature	-54°C ~ +71°C
12	Electrochemistry	Li/SOCL ₂
13	Activation Mechanism	Gun launch
14	Typical Application	Naval/Artillery Gun (76mm/155mm Shell)

1) **Shelf Life:** A) Minimum 20 years under sheltered storage condition .There should not be any leakage during the shelf life of battery.

B) Documents /test report in support of shelf life to be submitted by firm form the authorized agency.

K Kalan
wm/FS-1

Q. S. S.
wm/FS-2

Amritha
AWM/FS

K Kalan
MOS/FS

S-380000027

2) **Environmental condition:** Reserve battery shall function under following conditions.

SR No	Parameters	Min (Degree C)	Max(Degree C)
1	Temperature range for use	-30	+55
2	Temperature range for Storage	-30	55
SR NO	Parameter	Average	Max
1	Relative Humidity	65	95

Vendor to provide certificate of conformity duly supported by requisite certificate for the above.

- 3) **Safety:** The reserve battery in bare/assembled condition should be safe for transportation (vehicles, Railway, Air, and River without any limitation as to the distance & at the speed permissible for this kind of transportation), handling & storage. Safety aspects to be confirming as per MIL -STD-331 (Latest Issue) . Vendor has to provide certificate has to be provided for the same.
- 4) **Velocity & Pressure:** The fuze assembled with reserve battery & other components are subject to use in muzzle velocity range of 180 m/sec to 1100 m/Sec with Chamber pressure up to 440 Mpa. The Reserve Battery in assembled form in the fuze should be able to perform satisfactory under above operating condition.
- 5) **Environmental Tests:** The fuze assembled with reserve battery & other components are is subject to environmental use (Jolt, Vibration, jumble & 1.5 meter drop test) as per MIL-STD-/JSG0102.No leakage should be observed during or after conduction of above test.
- 6) **Test Chart for Activation time & Voltage Sustainable Time:** Firm has to provide test chart for battery activation time & Voltage sustainable time as per Technical Specification.
- 7) Firm should submit the test certificate approved by authorized agency for all the parameters mentioned in specification.

Kulian
WM/FS-1

Q. Prasad
WM/FS-2

Pranav
AWM/FS

K. Kalan
HOS/FS

S-380000027