

High Performance Gun Propellant

High Energy Materials Research Laboratory (HEMRL) has successfully developed wide range of Single, Double & Triple base propellant for tank and artillery gun ammunition. However, the energy levels of gun propellants of these classes have reached saturation level. Conventional double and triple base propellants are also beset with the problems of NG migration leading to limited shelf life of ammunition.

In order to overcome the limitations of conventional double/ triple base propellant, HEMRL has developed High Performance Gun Propellant (HPGP) technology for operational temperature from sub-zero to elevated temperature. Due to higher energy, the propellant can be used in various tank gun ammunition like 105mm/ 120mm/ 125mm to achieve higher Muzzle Velocity (MV) without exceeding chamber pressure limits of tank guns.

1. Interested Companies/industries are requested to apply against this EoI to the following address:-

**To,
The Director,
High Energy Materials Research Laboratory (HEMRL)
Sutarwadi, Pune-411 021
Email- director.hemrl@gov.in**

2. A copy of interest may be sent to the following address without any attachment:-

**To,
The Director,
Directorate of Industry Interface & Technology Management (DIITM)
Room No. 447, DRDO Bhawan Rajaji Marg, New Delhi-110 011
Email-diitm.hqr@gov.in**

List of Support documents to be attached with EoI:-

- (a) Memorandum and Articles of Association (Should be incorporated as per Indian Companies Act, as amended time to time).
- (b) Certificates of registration as a manufacturing unit, if any.
- (c) Audited Balance Sheet for the preceding three years.
- (d) Income Tax returns for the preceding three year period.
- (e) Details of shareholding/ownership pattern especially foreign partners/shareholders, foreign employees, directors, etc. The company must adhere to the prevailing Govt of India policies and regulations on Foreign Direct Investment (FDI)/ DIPP norms as applicable.
- (f) Annual budget for R&D during last three years.
- (g) Numbers and details of IPR or patents, etc., held by the company.
- (h) Number of technically or professionally qualified personnel.

- (i) Record of past performance (e.g., Supply orders executed against of Ministry of Defence orders, Public Sectors and Paramilitary Forces, if any).
- (j) Availability of adequate infrastructure (List of machines and their production capacities) and technical expertise.
- (k) List of Testing and Support equipments.
- (l) ISO/ ISI certification or any other certification.
- (m) Relevant clearances form the authorities/ ministries (if any).
- (n) Capacity and capability to undertake developmental work and to accept attendant financial and commercial risks.
- (o) Capacity/capability to market the product through the marketing network, sales and service network, reliability to maintain confidentiality.
- (p) PESO and DPIIT license for explosive handling if ToT is for high energy Material, explosives, propellants, and component/ system dealing with it etc.
- (q) Under taking form company seeking ToT that none of its Directors, Independent Directors, non-executive Directors, Key management personnel are involved in any corrupt practices, unfair means and illegal activities.
- (r) Details of the industries license for Defence manufacturing be provided by the industry seeking ToTs.