

Pinaka Mk-II Rocket System

Pinaka Mk-II rocket is an indirect fire, free flight artillery rocket system designed to neutralize variety of area targets over range of 20 to 60 km. These rockets loaded in specifically designed pod (6 rockets in one pod) and are fired from Pinaka launcher system. Rocket can be integrated with all the warheads developed for Pinaka Mk-I rocket. Rocket system mainly comprises of solid propellant based propulsion system, wrap around fin stabilizer system, warhead and Fuze. Technologies employed for achieving desired performance of rocket system are as below:

- Single flow-formed motor tube of high L/D ratio
- EPDM-II based rocket motor lining
- Energetic solid composite propellant
- Case bonded propellant grain for high volumetric loading
- Nozzle end ignition
- Stabilization of rocket during flight using flat fin based stabilizer
- Variable thickness FRP Launcher Tube
- Bolted pod

Brief specifications of the rocket are as follows:

- a. Caliber: 214 mm
- b. Range: Minimum 20 km, Maximum 60 km
- c. Weight of rocket: 325 kg
- d. Weight of warhead: 112 kg
- e. Weight of propellant: 131 kg
- f. Length of rocket: 5175 mm
- g. Operating temperature range: -20°C to $+55^{\circ}\text{C}$
- h. Fuze: Turbo powered, Proximity/ Point Detonating, Height of burst 4 m to 16 m
- i. Brake rings: 1
- j. Propellant: Energetic solid composite
- k. Nozzle end ignition
- l. Warhead types: Preformed Fragment (PF) & Restricted High Explosive (RHE)
- m. Accuracy & consistency: 1.5% of Range (PE)