

DEFENCE

Government Gives Nod To Indigenous Technology For Light Weight Bullet Proof Materials For The Indian Soldier

by Anupama Airy - Jan 29, 2018, 7:29 pm



Indian soldiers look on from their position by a road overlooking army barracks. (Photo credit should read ROUF BHAT/AFP/Getty Images)

Snapshot

- *The Indian Army will soon have indigenous light-weight bullet proof jackets.*

India's very own high tech light weight bullet proof jackets for the frontline soldiers will be ready soon.

The indigenous technology for these ultra light bullet Proof Materials proof jackets has got government's nod and prototypes of the same will be readied jointly by Larsen and Toubro (L&T) and Coimbatore based Amrita University.

Presently, India imports these jackets from the US and a single jacket costs anywhere up to Rs 1.5 lakh.

Initial estimates put the cost of an indigenous bullet proof jacket at around Rs 50,000 thereby saving billions of dollars of precious foreign exchange outgo every year.

Sources said a grant of close to Rs 10 crores for Development of the prototype has been given under the Technology Development Fund (TDF) by the Defence Research and Development Organisation (DRDO).

The TDF grant will be used to set up a pilot scale facility at Amrita University for processing these materials, supporting research at Amrita University for developing the configuration, realisation and testing of panels and delivery of a prototype vest from the facility.

In fact this is also the Indian Army's very first TDF project that has taken off the ground. The TDF certificate for the same was handed over recently by Defence minister Nirmala Sitharaman to L&T and its academia partner Amrita University at a defence industrial event in Chennai.

Mr Jayant D Patil, who is the Director on board of L&T and Head of Defence and Aerospace business at L&T received this TDF certificate from Ms Sitharaman.

Sharing details Mr Patil said that L&T and Amrita have entered into an Agreement with DRDO for grant of a technology development project titled Development of Light Weight Bullet Proof Materials.

He added that L&T will be the Development Agency in collaboration with Amrita University as the technology development partner.

This Project, aims targeted development of an high performance thermoplastic polymeric composite with high energy absorbing characteristics so as to provide necessary bullet proof resistance to save lives of our soldiers facing enemy fire. The technology targets use of Indigenously developed thermoplastic resins with carbon fibre fabric and processes for optimising the solution.

"We at L&T and Amrita University are hopeful of developing a game changing light weight body armour for the Indian soldier as a force multiplier for the brave men guarding our borders," said Patil.

Dr Shantanu Bhowmik, the innovator of this technology at Amrita University said, "We are very happy to have received the first TDF project. Along with L&T, we shall now set up 10 equipments to develop the composite panels for the light weight bullet proof jackets for Indian Army within two years."

This first TDF project gives shape to the current Army Leadership to create a User-Industry-Academia ecosystem for developing cutting edge technologies that enable the Nation to Fight Indian Wars with Indian Solutions.

The product material so developed will be tested and validated before realising a light weight prototype vest within 24 months.

As per L&T, the proposed material configuration is unique and revolutionary compared to the current technology in use for the same application which uses hard ceramics and thermosetting resin based composites.

The proposed configuration proposes to provide a new methodology and unique solution for light weight bullet proof material for the required threat level and freeing our soldiers to carry useful payloads to fight more effectively.

Mr Patil said that L&T's new composites manufacturing unit being setup at Coimbatore in addition to the existing facility at Vadodara, and our in-house R&D will support this development effort and subsequent scale up.

A Project Monitoring & Mentoring Group of specialists will monitor the project for achieving the defined objectives with respect to the time and costs projected.

The foreground intellectual property generated will be jointly owned by DRDO, L&T along with its Academic Research Partner Amrita University.

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