

Advanced Materials for the DoD Logistics Transformation



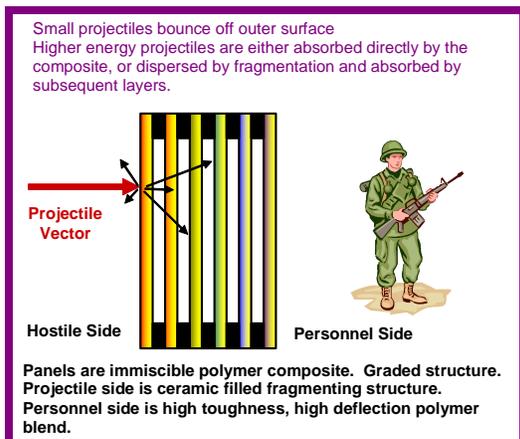
Overview

AMIPP engineers and scientists work closely with the US Army's ARDEC research teams to develop advanced and useful concepts for materials that will greatly assist in the Department of Defense's Logistics Transformation. The new materials include lightweight low cost composite packaging materials, field installable flame sprayable radar absorbing materials, and lightweight ballistic resistant materials.

Progress

Polymer composites prepared from ordinary polymers, such as polyethylene, polystyrene, polymethylmethacrylate, and polycarbonate, have been processed and fabricated into lightweight strong structures that have multiple uses in logistics supply chains and in war-fighter performance environments. Specifically, these composites are used for pallets, I-beams, and decking that facilitates mobility and supply under adverse conditions. More importantly, these materials, which are made substantially from low-cost recycled raw feed, have excellent shrapnel and small arms projectile resistance and can be used for protective shelters in the field. Field applicable flame spray coatings impart a range of specific properties including radar invisibility [stealth] and visible luminescence for air drops into hostile or friendly regions, respectively. This project is closely linked with the on-going 463L pallet replacement program.

Tables and Figures



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