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Evolution Armor Systems Introduces Evo-Flex Laminate System Ballistic Armor

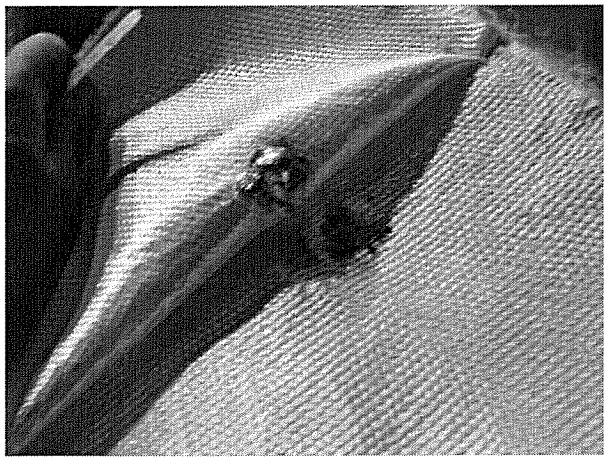
by David Crane
defrev@gmail.com

DefenseReview received the email message-format press release below from Allan D. Bain, President/CEO of Evolution Armor Systems. It discusses the Evolution Armor Evo-Flex laminate ballistic armor system for soft armor and hard composite armor solutions (including soft body armor, helmets, etc.) and other applications. According to Mr. Bain, Evolution Armor will be incorporating/integrating nanotechnology (carbon nanotubes, a.k.a. carbon nano tubes, specifically), to increase the armor's performance.

Back in December (2005), Defense Review reported on ApNano Materials, Inc.'s very interesting Nano-Armor development project being conducted with the assistance of the Nano-Materials Synthesis Group at the Weizmann Institute of Science. DefRev doesn't yet know if Evolution Armor has had any contact with ApNano. Either way, commercial off-the-shelf (COTS) nanotech body armor solutions appear to be on the way.

The following email-format press release has been slightly modified from its original form:...

"From: Allan Bain
Date: Mar 29, 2006 8:39 PM
Subject: Press Release
To: defrev@gmail.com

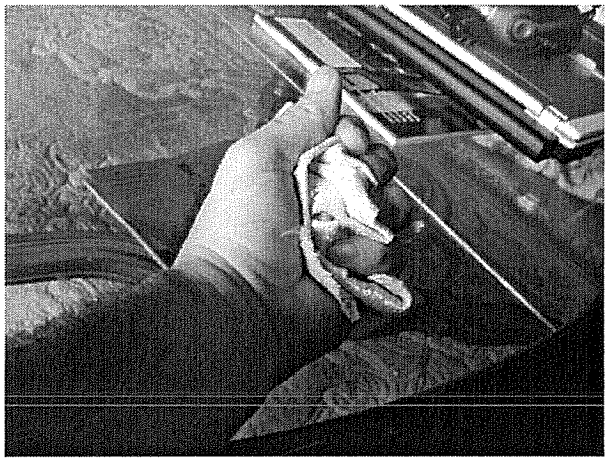


Mr. Crane,

The industry of uni directional textile ballistic materials is opening up past Honeywell and their offerings of Spectra Shield and Gold Flex. Back in the 1980's and 90's 0/90 laminate technology was new compared to plain woven fabrics. 0/90 refers to the direction of a layer of non-woven fibers bundles that have been spread thin and usually impregnated with a elastomer resin. Take two of these spread fibers bundle layers and orientate them in a cross piled fashion and you have a 0/90 laminate.

The advantage of these kind of laminates is you avoid fiber crimp assocated with plain woven fabrics. Even in looser weaves where yarn crimp has been minimized the performance still doesn't meet the level that 0/90 laminates achieve for a couple of reasons:

1) The 0/90 fibers sit flatter and completely in contact with the crosspiled layer. This causes less spaces than a weave and better interaction between the crossing fibers in a ballistic event.

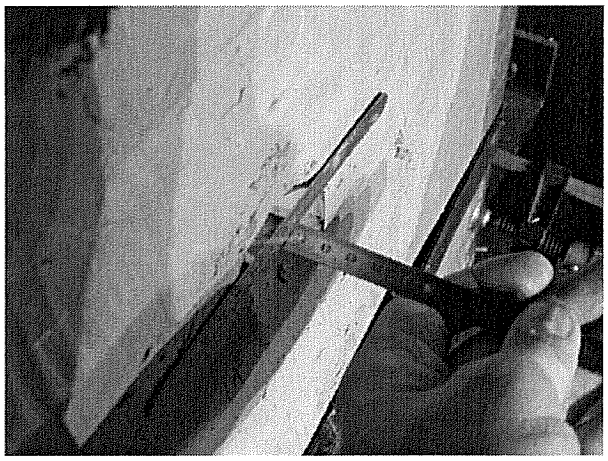


2) Plain woven fabrics tend to transfer energy down the weave gradients and have very little energy transfer in the intersecting direction to the weave gradient. 0/90 laminates have a more evenly dispersed direction of energy transfer from the impact area.This also helps with Back Face Signature (BFS) that is the trauma experienced by the wearer of the vest unit when a bullet is defeated.

Basically, you can do more with less fiber.

Our Patent Pending Evo-Flex Laminate System is a new twist on 0/90 style laminates and is extremely flexible due to it's very low polymer film to fiber weight ratio. It's also the first water resistant aramid laminant. All the other aramid laminates when exposed to moisture will wick it up very fast and render the laminate ineffective. Even in the age where water proof bagging systems will eventually become manditory a redundant water resistant system internally is certainly desireable considering the rough use that armor encounters in military operations. You can't very well discontinue use of the armor in the middle of an operation because the water tight bagging system has been compromised.

The Evo-Flex laminate system is ideal for fragmention situations and blends well with other types of materials, and starting next year will be incorporating a Carbon Nano Tube (CNT) inpregnation into the system for increased performance. These Carbon Nano Tubes have tensile strength and hardness that exceeds ALL of the best fibers currently available. This is a key improvement that we have plans to intergate with our flexible rifle system that is due to be completed later in 2006. Our company jointly pioneered the first generation of flexible rifle resistant armor [titanium composite and ceramic composite discs creating a flexible hard armor scalar matrix], and we are now free to continue this development as a recent non-compete covenant has expired.



We currently have two licensees of Evo-Flex and several others in the negotiation stage."

Evolution Armor Systems can be contacted by phone at 760-277-3292, or via email at info@evolutionarmor.com. Ask for Allan Bain.