

# Nanotech Briefs™

Engineering Breakthroughs in Nanotechnology & MEMS

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## AWARDING THE BEST IN SMALL TECH



for 2005

In this issue — dedicated entirely to our Nano 50 award winners — *Nanotech Briefs* recognizes the top 50 technologies, products, and innovators that have significantly impacted, or are expected to impact, the state of the art in nanotechnology. From scientists developing novel nanomaterials, to instruments capable of sensing a single atom, the winners of the Nano 50 Awards are the "best of the best" — the innovative people and designs that will move nanotechnology to key mainstream markets.

### PRODUCT AWARD

Nanotech Briefs

#### InMat® , Inc.

Hillsborough, NJ

Nanolok™/Air D-Fense™ Coatings

InMat's nanocomposite coatings improve the barrier properties of polymers and elastomers. The coatings use InMat's proprietary and patented Nanolok technology platform, and are available under the brand names Air D-Fense and Nanolok. These coatings are designed for use in industries such as flexible and rigid packaging, automotive, medical, protective apparel, and sports equipment.

Nanolok coatings are environmentally friendly aqueous suspension of nano-dispersed silicates and either neoprene, nitrile rubber, or polyester resin.

The elastomeric Nanolok technology can be used for ozone, ultraviolet, solvent, fuel, or oil resistance. The non-elastomeric Nanolok technology can be used to provide improved barriers for flexible and rigid packaging.

Air D-Fense is an environmentally friendly aqueous suspension of nano-dispersed silicates and butyl rubber, and can be applied to elastomeric substrates via spray or dip coating. It can be used in any rubber product that flexes and needs to hold air. The first commercial application of Air D-Fense barrier coatings was in the DoubleCore premium tennis ball made by Wilson Racquet Sports. The inner core of the ball is coated with the InMat barrier to maintain air pressure and bounce at least two times longer. Other applications include bicycle, automobile, and truck tires.

Visit [www.inmat.com](http://www.inmat.com).

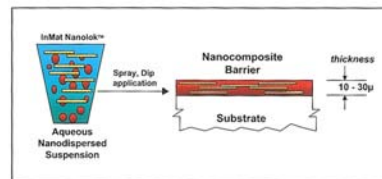


Illustration of how the InMat Nanolok™ technology works.