

### What is it?

Pioneered by InMat® Inc., NanoLok™ coatings are aqueous suspensions of nanodispersed silicates and elastomers. They are environmentally friendly, compatible with rubber processing conditions and can be applied via spray or dip coating processes to a variety of substrates. When applied to elastomeric substrates, these coatings provide an extremely efficient barrier on elastomeric substrates while retaining a high degree of applied to elastomeric substrates.

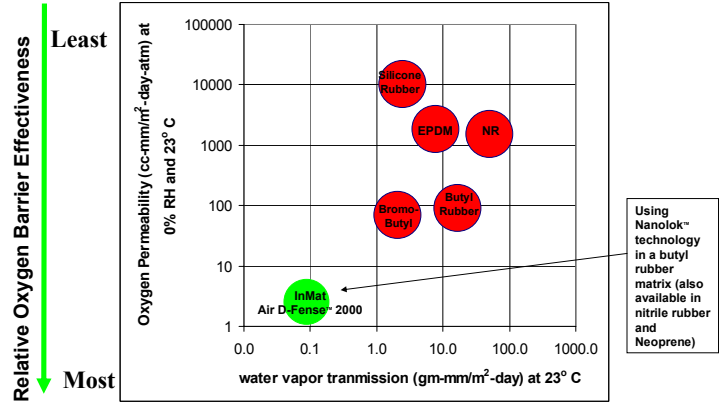


InMat's Air D-Fense™ 2000 coating using Nanolok™ technology in a butyl rubber matrix is used commercially in Wilson's Double Core Tennis Balls - the Official Ball of the Davis Cup.

These tennis balls last twice as long because they retain air longer. A thin layer of Nanolok™ on the inner rubber lining of these balls increases air retention compared to the uncoated rubber.



### InMat's Butyl Nanocomposite Coatings Provide a Unique Combination of Moisture and Oxygen Barrier for Elastomers



Using Nanolok™ technology in a butyl rubber matrix (also available in nitrile rubber and Neoprene)



Soccer Balls that don't lose air and play better



Tires that improve gas mileage and retain air longer

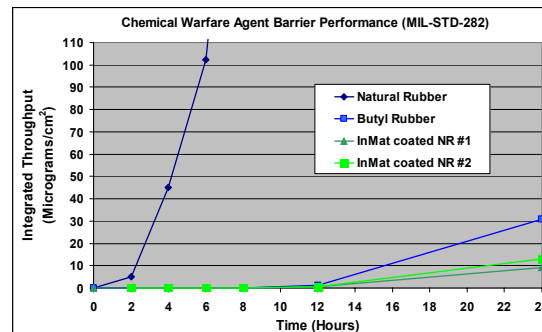
### What are the benefits?

- Reduced material costs
- Reduced weight
- Thin coating highly cost effective vs. butyl rubber
- Selectable matrix for optimal secondary properties
- Compatible with rubber processing conditions
- Flexibility
- Recyclability
- Environmentally friendly



Protective gloves that provide better chemical resistance and greater dexterity

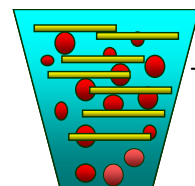
### 50 microns of InMat coating provide superior chemical protection compared to a butyl rubber glove



### How does it work?

The Nanolok™ aqueous suspension is applied via dip or spray coating process onto an elastomer substrate. Once dry, a very thin coating (10-30 microns) of Nanolok™ forms on the substrate. This coating contains hundreds of nanodispersed platelets per micron of coating thickness. These platelets form a tortuous path for molecules to penetrate, dramatically increasing the barrier properties of the substrate. Nanolok™ coatings form an extremely efficient barrier which can be 1000 times less permeable than the uncoated substrate, depending on the type of rubber and thickness of coating used. Thin coatings are applied, making these coatings highly cost-effective: approximately 0.01mm of Nanolok™ coating, for example can replace 1mm of butyl rubber to achieve the same gas barrier levels.

Nanolok™ aqueous suspension



Nanolok™ Coating

