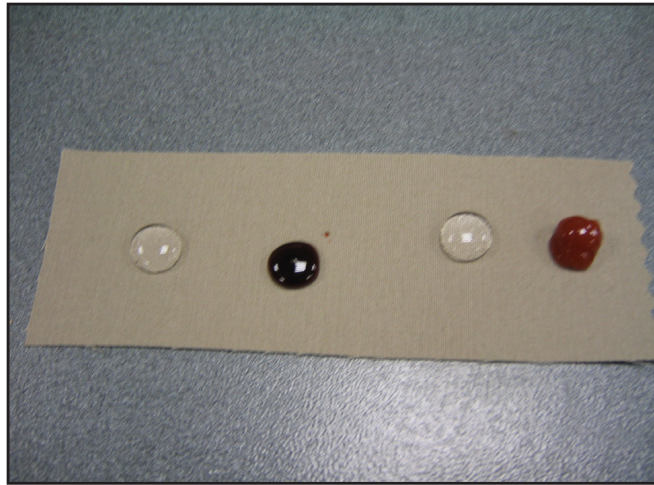


Experiments with Nano-Tex, the Nanofabric

Find out if nanotechnology can keep your clothes clean.



Materials

- swatches of Nano-Tex fabric
- swatches of untreated cotton fabric
- several stain agents (e.g., grape juice, salad dressing, ketchup)
- paper towels
- water

To Do and Notice

1. First feel both the treated and untreated fabric with your hands. Is there a noticeable difference in the texture of the two fabrics? Take a look at the two fabrics. Is there a visible difference between the two?
2. Spend some time investigating the stain resistance of both the treated and untreated fabrics. After applying various stain agents, let the stains sit for a few minutes. Then try wiping the fabrics clean with a paper towel, and rinsing the fabrics clean with water.
3. Record your detailed observations including variables such as the type and amount of stain agent used and how long the stain was allowed to sit.
4. How did the Nano-Tex fabric compare to the untreated fabric? Is Nano-Tex really more stain resistant? Do other properties suffer as a

trade-off? Was the fabric really good at repelling some stains, but not others?

5. You might want to investigate other properties such as wrinkle resistance or durability.

What's Going On?

Used by a number of clothing manufacturers, Nano-Tex is fabric that has been treated with a solution of nanofibers 1/1000 the width of a human hair. These fibers act like whiskers, or peach fuzz, creating a cushion of air on the surface of the fabric. Like peach fuzz, these fibers cause water to bead up and roll off. Therefore, the nanofiber-treated fabric resists water and water-based stains. But because the nanofibers are so tiny, they don't change the look or feel of the fabric.



This series of activities was supported by the National Science Foundation under Grant No. ESI-0532536, and Grant No. PHY-0424401.

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