

## Super Material Soaks Up Crude Oil

By [Alyssa Danigelis](#) | Mon Jun 21, 2010 07:57 AM ET



Finally, a glimmer of hope: A unique material created by a professor at Texas Tech University is proving that it can successfully trap crude oil and absorb the toxic vapors that the oil gives off.

The material, called [Fibertect](#), was developed by [Seshadri Ramkumar](#), an associate professor of nonwoven technologies at the university's Institute of Environment and Human Health. Top and bottom layers are made from raw cotton to absorb the oil and the center consists of a fibrous activated carbon where the oil gets contained, according to [a description](#) from the university. The material, which is biodegradable on its own, can absorb up to 15 times its weight.



Initially Fibertect was intended to be used by the U.S. military in case of a chemical or biological attack because it can even effectively trap agents such as mustard gas. In late May, the EPA approved Fibertect for use cleaning up dangerous materials. Since then its distributor, First Line Technology, has put it to the test on the front lines of the mind-bogglingly bad oil spill in the Gulf that started two months ago.

Grand Isle, Louisiana, has been so hard hit by the spill that local fisherman Doug Shaw recently [described the area](#) as "dead" to a *New York Daily News* reporter. In other words, it's the right place to try out the material. Preliminary tests in Grand Isle demonstrated that

Fibertect could handle an oily mess. When the material was put on top of an oil glob that had washed ashore, Fibertect picked it up and wouldn't release it.

One of the key differences between this material and the more common absorption materials being employed to mop up oil is that it's made from organic components instead of polypropylene, which is derived from petroleum. Granted there are large leaps being made with recycling bottles into polypro, but the less processing involved in having to manufacture cleanup tools, the better. Another advantage is that these super cotton pads can handle toxic gases, which helps protect cleanup crews who already have a host of horrors to face.

I just wish that Texas Tech University's professors could figure out a way to construct enormous, record-breaking rafts wrapped in Fibertect-like material that we could use to speed the cleanup. By one [academic estimate](#), oil from the spill is already enough to power at least 38,000 cars for an entire year, and that's a low estimate. We're going to need all the wipes they can make.

*Photo: TTU associate professor of toxicology Ernest Smith uses Fibertect on crude oil found near Orange Beach, Alabama, following the spill in the Gulf of Mexico (top). An oil-soaked Fibertect (bottom). Credit: First Line Technology.*

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