

Ultra Filter-Tex Fabric

Polypropylene to Ultra Filter-Tex Comparison

Ultra Filter-Tex is a patented hydrophilic (water attracting) and lipophilic (oil attracting) material made of recycled synthetic fibers. The fibers are blended and processed to form a lightweight mass with enormous surface area and interstitial spaces. These properties make Ultra-Filter-Tex an extremely high performing oil sorbent and filter material. It's offered in bulk media form and also in roll form. Ultra Filter-Tex has over 10 years of demonstrated and proven performance in capturing hydrocarbons and filtering oil laden water.

- Polypropylene is hydrophobic (water repelling), and will not let water pass freely through the fabric. However, Ultra Filter-Tex is hydrophilic, and lets the filtered water freely pass through.
- Polypropylene only absorbs oils and hydrocarbons in the outer layers. Ultra Filter-Tex absorbs throughout the entire fabric. So foot for foot, this makes Ultra Filter-Tex more efficient.
- For every gallon of oil that needs to be captured, it will require significantly more polypropylene fabric than is needed with Ultra Filter-Tex to get the job done.
- Ultra Filter-Tex can be infused with Ultra-Microbes. These are oil-eating microbes that transform hydrocarbons into lipids, carbon dioxide, trace carbon, and bacterial cells.

Cost Comparison

Taking into account deployment and retrieval costs for each boom, the Ultra-Filter-Tex material (\$50.48/foot* of boom per gallon of oil) is over three-and-a-half times more cost effective than traditional polypropylene booms (\$176.21/foot of boom per gallon of oil).

Target Quantity of Oil Absorbed= 1 gallon per foot of boom	Ultra-Filter-Tex Boom 5 inch Diameter	Polypropylene Boom 5 inch diameter.
Cost per foot of 5" diameter Oil Absorbing Boom	\$9.75	\$3.50
Gallons of Oil absorbed per foot of boom*	0.79	0.19
Number of times a boom need to be deployed to absorb the target quantity of oil	1.27	5.26
Labor cost to deploy booms needed to absorb the target quantity of oil ²	\$19.05	\$78.90
Labor cost to retrieve saturated booms to absorb the target quantity of oil ²	\$19.05	\$78.90
Total cost per foot of Boom to absorb the Target Gallons	\$50.48	\$179.21

* Prices referenced were current only as of the date of this study. Please contact us for a current price quote for your project.

¹ Based on the thick crude oil from the Deepwater Horizon Gulf oil spill vs. refined oil. Assumes full saturation of the hydrophilic UltraFilter-Tex booms based on actual testing and industry information data and partial absorption (based on discussions with First Responders, polypropylene booms are only absorbing oil into the outside 1 inch of the boom before blinding over, resulting in only a 36% effective area for a 5 inch diameter boom) by the polypropylene boom based on testing and industry information.

² Based on discussions with First Responders, a typical charge to deploy a boom in calm water is \$14-\$16/foot of boom. For the purpose of this exercise, \$15/ foot of boom will also be used for the retrieval of each boom, although in reality this charge will be slightly higher.

