

Adsorption Capacity of ADSORBIT® Compared to Other Oil Sorbent Media

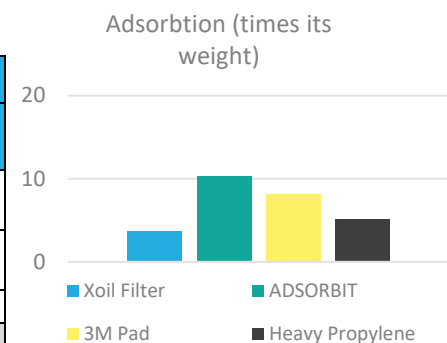
Polypropylene products are the most widely used oil adsorbent products on the market today... not the best... just the most widely used. This study compares the adsorptive qualities of ADSORBIT®, 3M Polypropylene Pads, Heavy polypropylene geo-textile as used for storm water filtration, and Xoil bilge filter with Clerify filter media.

Method

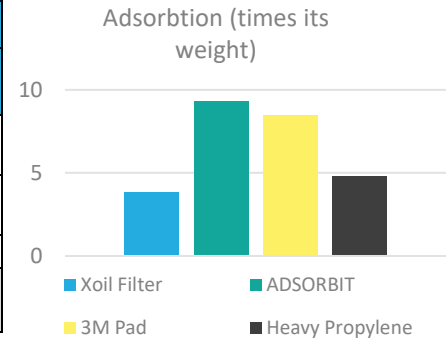
ASTM Method F726-81, "Sorbent Performance of Adsorbents" measures the maximum adsorption of oils and floating immiscible liquids. Testing under these ASTM guidelines, representative samples of the media to be tested were treated with three equivalent solutions of 50 weight motor oil, #2 diesel fuel, and a 50/50 solution of motor oil and diesel fuel. Each media was tested 3 times with each solution and the results of the 3 tests were averaged for each tested media to obtain an accurate representation of the adsorption capacity. Results of this adsorption capacity comparison are presented in the tables below.

Results

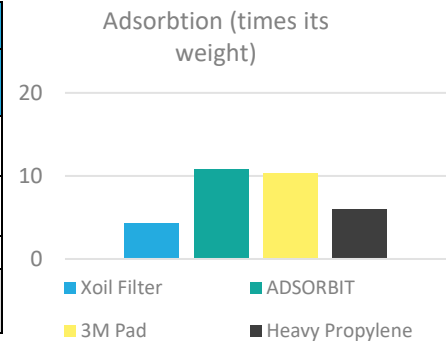
| #2 Diesel Oil | | | | |
|-------------------------------|-------------|-----------|--------|-----------------|
| Weight in grams | Xoil Filter | ADSORBIT® | 3M Pad | Heavy Propylene |
| Dry Weight of Media | 1.175 | 0.5674 | 0.3857 | 0.3857 |
| Oil Saturated Weight | 5.453 | 6.4084 | 7.919 | 5.97 |
| Weight of Oil | 4.278 | 5.841 | 7.046 | 4.9843 |
| Adsorption (times its weight) | 3.64 | 10.29 | 8.07 | 5.06 |



| 50/50 Diesel / Motor Oil | | | | |
|-------------------------------|-------------|-----------|--------|-----------------|
| Weight in grams | Xoil Filter | ADSORBIT® | 3M Pad | Heavy Propylene |
| Dry Weight of Media | 1.1508 | 0.7448 | 0.9049 | 1.0635 |
| Oil Saturated Weight | 5.5925 | 7.666 | 8.5334 | 6.1893 |
| Weight of Oil | 4.4397 | 6.921 | 7.6285 | 5.1258 |
| Adsorption (times its weight) | 3.85 | 9.29 | 8.43 | 4.82 |



| #2 Diesel Oil | | | | |
|-------------------------------|-------------|-----------|---------|-----------------|
| Weight in grams | Xoil Filter | ADSORBIT® | 3M Pad | Heavy Propylene |
| Dry Weight of Media | 0.9886 | 0.7128 | 0.7935 | 0.98045 |
| Oil Saturated Weight | 5.2013 | 8.3665 | 8.9828 | 9.80125 |
| Weight of Oil | 4.2128 | 7.6536 | 8.18925 | 5.8219 |
| Adsorption (times its weight) | 4.26 | 10.74 | 10.32 | 5.94 |



Conclusions

Test results clearly show that ADSORBIT® out-performed the other filtration media with an average adsorption factor in excess of 10 times the weight of the ADSORBIT® filtration fabric. 3M Polypropylene Pads ran second to the ADSORBIT®, however, it should be noted that 3M Polypropylene Pads cannot be used as a filtration media because water will not readily pass through the polypropylene pad, nor can they be re-used as the ADSORBIT® can be.