

Oil Retention Study

A Comparison: **Adsorb-it®** vs Reactive Polymer

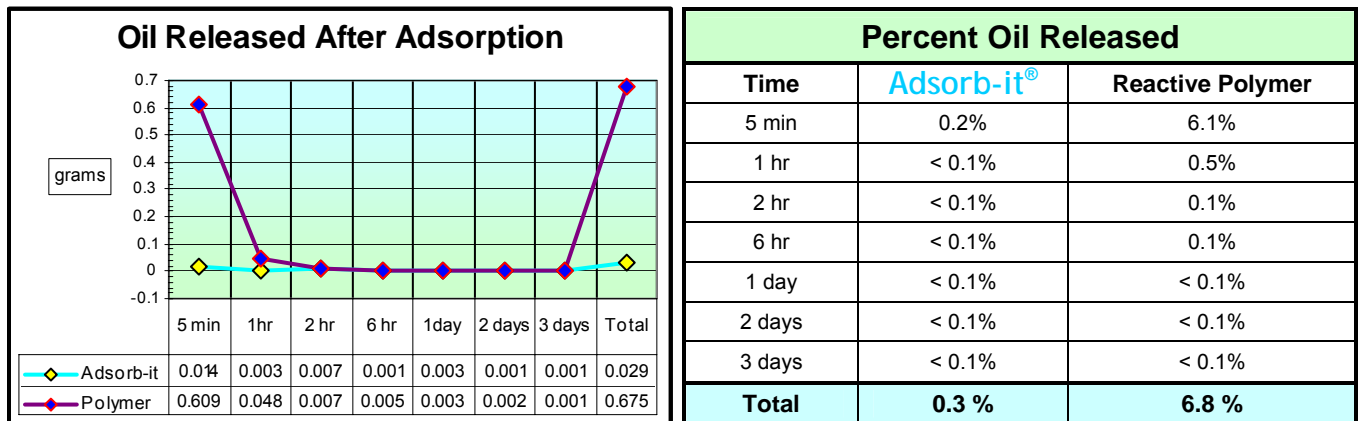
Studies have shown the remarkable ability of **Adsorb-it®** to filter and adsorb petroleum hydrocarbons. In many applications, filter media is required to endure long dry periods subsequent to the retention of these hydrocarbons. It is imperative that a filter media have not only the ability to retain petroleum hydrocarbons in wet or dry conditions, but to function cyclically through wet and dry periods with a high degree of efficiency.

Method

For comparison, a retention study was performed using **Adsorb-it®** geo-textile filtration fabric and a granulated reactive polymer. This study was performed to document the relative oil loss from each media through alternating periods of flushing and drying.

20 grams of **Adsorb-it®** and 20 grams of granulated reactive polymer were placed into a filtration apparatus. 10 grams of motor oil was poured onto the **Adsorb-it®** and 10 grams of motor oil was poured onto the granulated reactive polymer. Both were allowed to stand for 5 minutes. Subsequently, 1 liter of water was poured through each media. Additional flushing with water was continued at measured intervals up to 3 days. Flushing waters from each interval was collected and analyzed in accordance with EPA Method 413.1 to document the weight of any oil released from either media. The results of this study are presented in the graph and table below.

Results



Conclusions

Given the extreme test conditions, both products retained oil well after the first hour. The reactive polymer released a substantial amount in the first hour, which may be the time required to complete the media/oil reaction. Oil adsorption to the **Adsorb-it®** media was almost immediate. After one day, the percent of oil flushed from either media was less than measurable.