

HIGHLY EFFECTIVE NORIT[®] ACTIVATED CARBON FOR SEDIMENT REMEDIATION

Our benefits

- ◆ Activated carbon grades for adsorption of PCBs, PAHs, dioxin, furan
- ◆ Grades with high tolerance for natural organic matter (NOM)
- ◆ Partition coefficients (k_p , $1/n$) for cap design using CAPSIM model available
- ◆ Largest global manufacturer of activated carbon

Challenge and solution

Sediments accumulated on the bottom of waterbodies are sinks for toxic, bio-accumulative chemicals that can be transferred to invertebrates and fish via food webs. Increasingly, practitioners are turning to in situ treatment of contaminated sediments to reduce the ecological and human health risks posed by contaminants, as conventional technologies (dredging, conventional sand capping) have not always demonstrated risk reduction. This new approach of in situ sediment treatment via contaminant sequestration involves applying activated carbon treatment amendments onto the surface of sediments.

We have developed two lignite coal-based activated carbon grades specifically for removing PCBs, PAHs, dioxin and furan in contaminated sediments.



NORIT SEDIMENTPURE powdered activated carbon	For Powdered Activated Carbon (PAC) amendments that incorporate binders and weighting and are applied to sediment surface
NORIT SEDIMENTPURE granular activated carbon	For reactive cap layers that incorporate Granular Activated Carbon (GAC) and sand and are applied to sediment surface

NORIT SEDIMENTPURE activated carbon has an optimal pore size distribution proven to be highly effective for the removal of these compounds in the presence of natural organic matter (NOM) concentrations typical in sediment pore water (Figure 1). This broad pore size distribution is critical for high performance, as NOM can partially or completely block the adsorptive capacity of more microporous carbons.

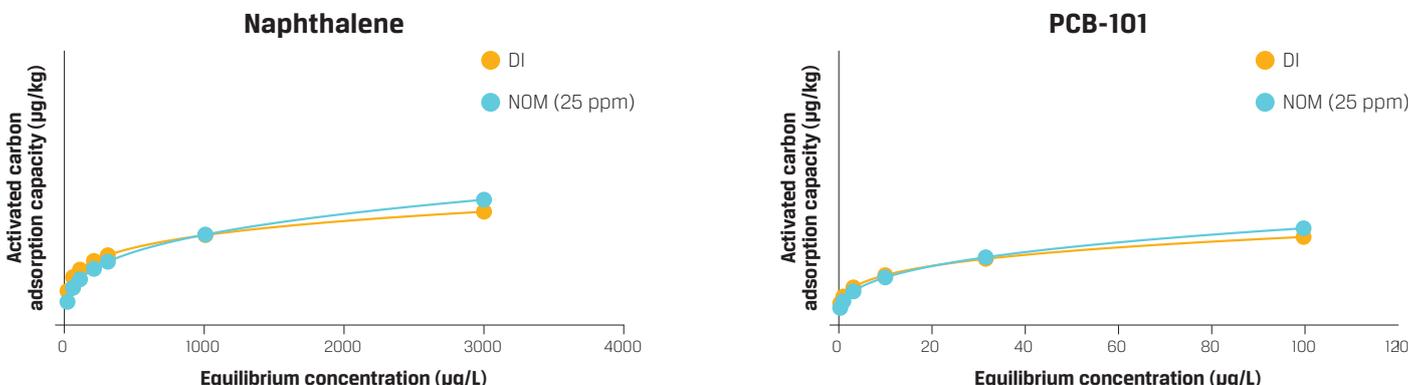


Figure 1

