Arsenic Removal By Sorbster® Media

Proficiency for Arsenic

The functionalized activated alumina composition of Sorbster® media provides a strong adsorbent for the reduction of arsenic from industrial wastewaters. Building on the proficiency of plain activated alumina to adsorb arsenic that was identified in the 1980's, Sorbster® media has further enhanced activated alumina by reacting additional proprietary functional chemistry groups including iron throughout the alumina pore structure. This reacted additional chemistry provides arsenic removal with greatly reduced competition from competing anions such as fluoride. As a result, Sorbster® media can simultaneously remove arsenic, fluoride and selenium anions as well as mercury, copper and other cations from wastewater streams. The media is proficient for both arsenic (V) and arsenic (III). Typical expected removal rates of arsenic (V) are 90–99% and 70-90% for arsenic (III) with an expected 30% weight capacity if the arsenic is in a soluble form.

Sorbster® media is recommended for both "heavy lifting" removal of ppm arsenic levels and "polishing" removal to reduce trace levels. Polishing of already installed treatments can be done. Removal is a function of water-to-media contact time, arsenic solubility and the total contaminant loading

Sorbster Arsenic Removal for Various Industrial Waters

Typical Application Conditions: 20 Minute Water-to-Media Contact Time, Flow-Through Vessels, Ambient Temperature, Arsenic measured by EPA Method 200.7

Water Type	Initial Arsenic	Arsenic After Sorbster®	% Removal
FGD Scrubber Wastewater	6 µg/L	Not detected	>90%
FGD Landfill Leachate	4.8 µg/L	Not detected	>90%
FGD Landfill Leachate	2800 µg/L	430 µg/L	85%
California Groundwater	106	4.1 µg/L to not detected	96%
Western USA Refinery Effluent	8.2 µg/L	Not detected	>90%
Mining Process Water	72 µg/L	Not detected	>95%