



Graver Technologies

Filtration | Separation | Purification

MetSorb® POWDERED ADSORPTION PRODUCTS for Carbon Block and Functionalized Filter Media Manufacturing using HMRP, STP or STP Hybrid Adsorbents to reduce lead and mercury

APPLICATION BULLETIN

MAKE BETTER BLOCKS

Carbon Block and Functionalized Media filters utilize **MetSorb® adsorbents** for reduction of lead and mercury to meet NSF/ANSI 53 requirements. MetSorb® adsorbent media are also used to scavenge other heavy metals including arsenic, antimony, cadmium, etc. that may extract from additional filter components.

Background

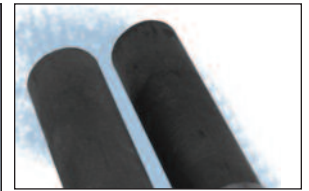
Carbon blocks have been used for decades to remove chlorine, taste and odor (CTO) from drinking water. As the recognition of contaminants in water has grown, additional claims have been added. Discerning customers began requesting more stringent requirements for removing additional organic compounds as well as inorganic compounds, including lead and mercury. Lead and mercury are removed from water using functional adsorbents like **The MetSorb® family of powder products including MetSorb® HMRP, MetSorb® STP and MetSorb® STP-Hybrid.**

Common carbon block manufacturing methods include compression molding and extrusion of activated carbon and a binder(s) with a functional additive like MetSorb® HMRP, STP or STP-Hybrid adsorbents added at 5-10% by weight to meet stringent requirements of drinking water industry standards including the aesthetic effects (chlorine, chloramine, TDS, etc.) and health effects (reduction of lead, mercury and other heavy metals) dictated by NSF/ANSI standards 42 and/or 53.

Reference :

https://d2evkimvhatqav.cloudfront.net/documents/dw_nsf_ansi_42_53_401.pdf?mtime=20200417153151&focal=none

In addition to lead and mercury claims, MetSorb® adsorbents are also used to scavenge heavy metals like arsenic, antimony, cadmium and others that may be extractable from the activated carbon or other filter components.



MetSorb® HMRP, STP and STP-Hybrid powdered adsorbents are all certified to NSF/ANSI 42 Standard

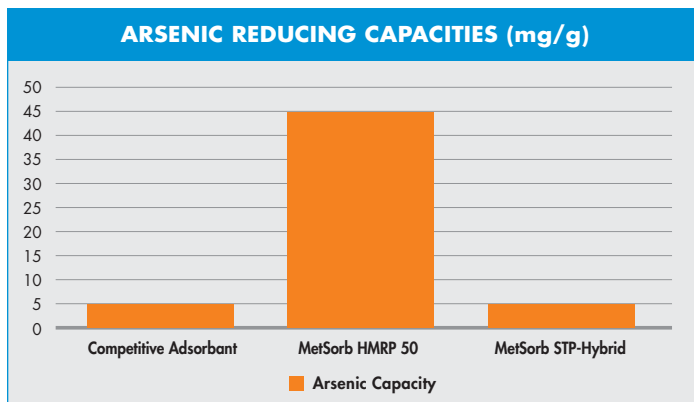
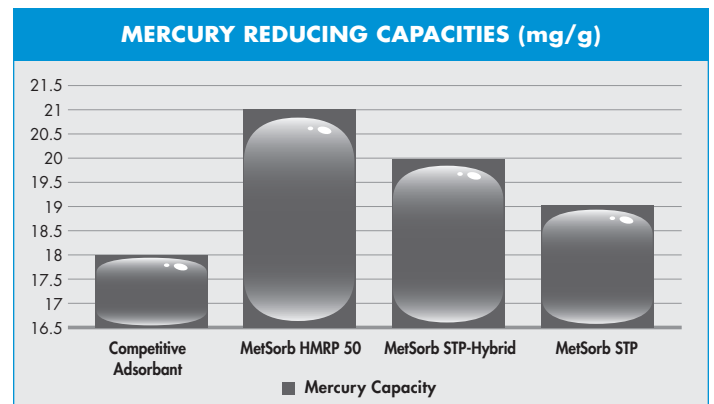
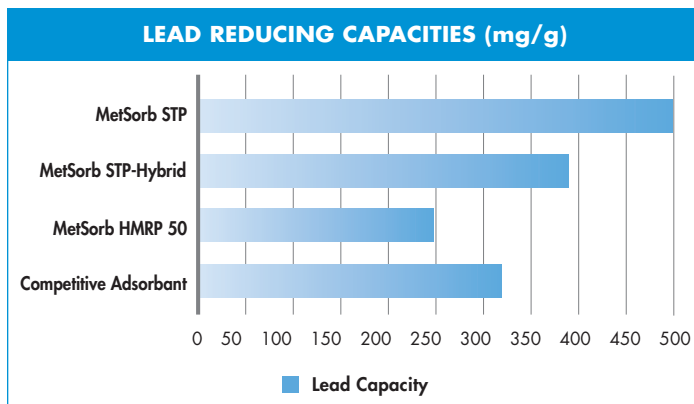
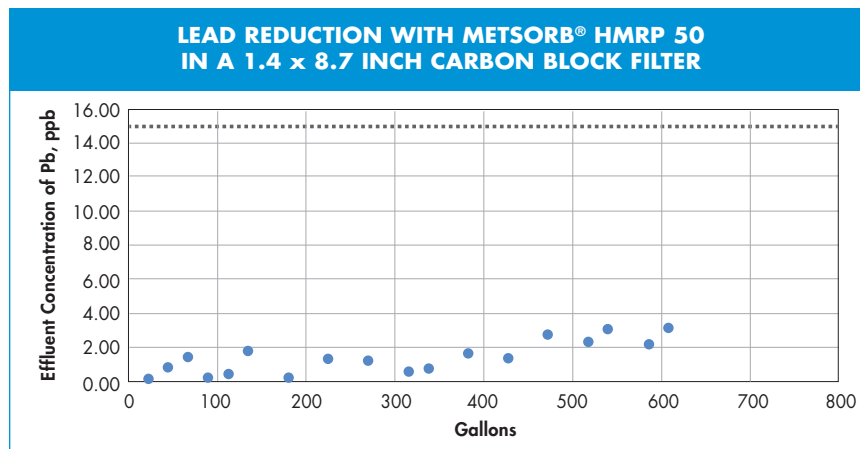
- Protected under US patents; 6,919,029; 7,473,369; 7,497,952; 8,580,226 and other patents internationally

Objectives

As consumers become more aware of contaminant presence in their drinking water the contaminant reduction requirements have become more stringent. In order to allow standard claims (CTO) and additional specialty claims (a growing list of organic and inorganic contaminants) to be met, advanced adsorbents with high capacity and great kinetic performance are required.

Most adsorbent providers are marketing entities that act as independent sales consultants for manufacturers. They represent functional adsorbents in addition to many other products. When you work with Graver Technologies, you are working directly with the scientists and engineers who develop, manufacture and supply industry leading advanced adsorbents. We're proud of our long history of partnering with carbon block and other functionalized filter manufactures in support of meeting consumers needs for high quality drinking water products!

Product Performance



Recommendations

Graver Technologies' suite of adsorbent medias are the perfect choice for lead and mercury reduction in your carbon block and functionalized filter media cartridges.

MetSorb® HMRP – 70% of the cost of industry standard lead and mercury reduction media plus additional capacity to scavenge oxyanions like, arsenic, vanadium, antimony, etc.

MetSorb® STP-Hybrid – gives similar lead and better mercury reduction performance at a lower price point than the competitive market product.

MetSorb® STP – offers industry leading performance for the reduction of lead and mercury in your application. STP also adds further capacity for additional metals removal including zinc, copper, and other cations.

For more information

MetSorb® Customer Service: 1-800-533-6623



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Member of:



American Water Works Association
The Authoritative Resource on Safe Water™

Water Quality Association

Rural Water Association

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