



ADSORBSIA™ As500 Titanium Based Media

A titanium oxide adsorbent for the removal of arsenic, lead, and other heavy metals

Typical Physical and Chemical Properties

Product Type		Titanium oxide based granulation
Particle size range	Mesh	16-60
On 16 mesh	%	<5
Through 60 mesh	%	<10
Moisture Content	%	<15
Bulk Density	g/L	480
	lbs/ft ³	30
Specific surface area	m ² /g	200
Pore volume	cc/g	0.4
Equilibrium Capacity ^a (@ 50 ppb, pH 7)		
Arsenic (V)	g/Kg	12 - 15
Arsenic (III)	g/Kg	3 - 4
Selenite (IV)	g/Kg	4 - 5
Lead (II)	g/Kg	11 ^b

a. Static equilibrium capacity is measured at room temperature in ANSI/NSF Standard 53 challenge water.

b. Lead data collected at pH 4

Contact a Dow sales representative for a copy of the sales specification.

Typical Properties and Applications

ADSORBSIA™ As500 media is an easy to use granular titanium oxide with strong affinity for arsenic, lead and other heavy metals. This distinct media is designed for non-regenerative applications. The inherently high adsorptive capacity of Dow's titanium oxide based technology has been formulated into a mechanically stable granulation suitable for use in a broad range of potable water applications. When exhausted, it is removed from the vessel and replaced with new media. Spent media from arsenic loading tests have been shown to pass the U.S. Environmental Protection Agency's TCLP extraction protocol as well as both the WET and TTLC tests for California. ADSORBSIA As500 media is NSF/ANSI 61 certified without limitations.

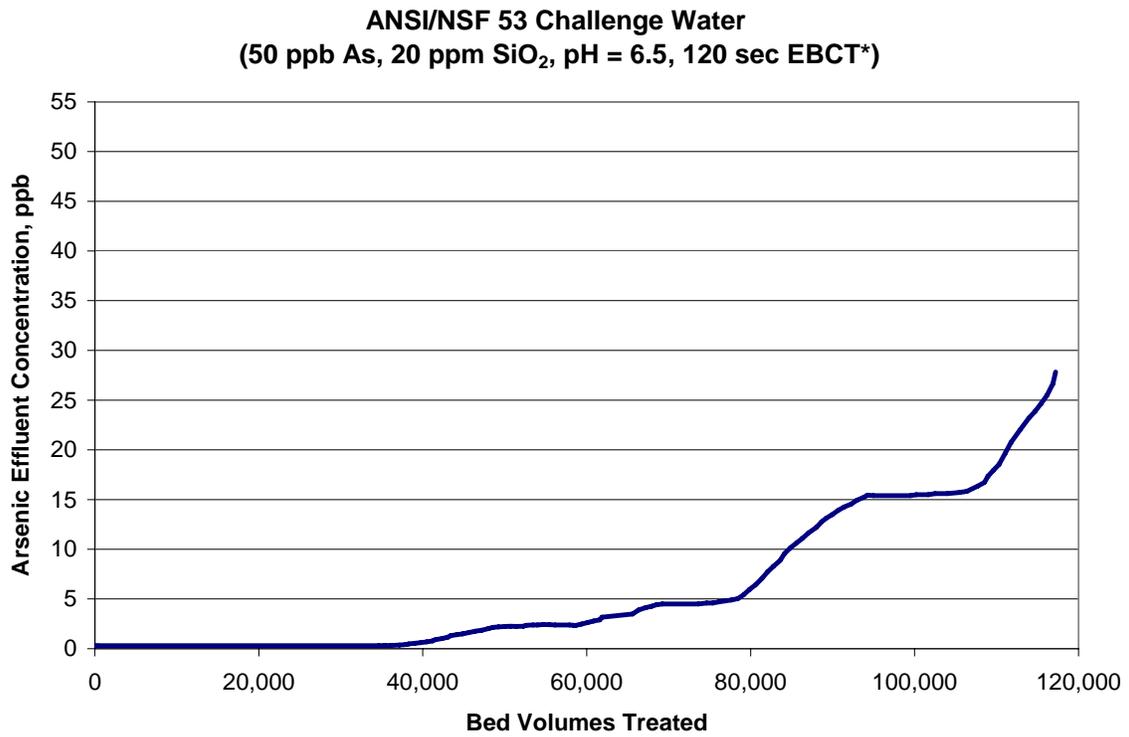


Figure 1. ADSORBSIA™ As500 media dynamic arsenic adsorption at pH 6.5. *EBCT = empty bed contact time

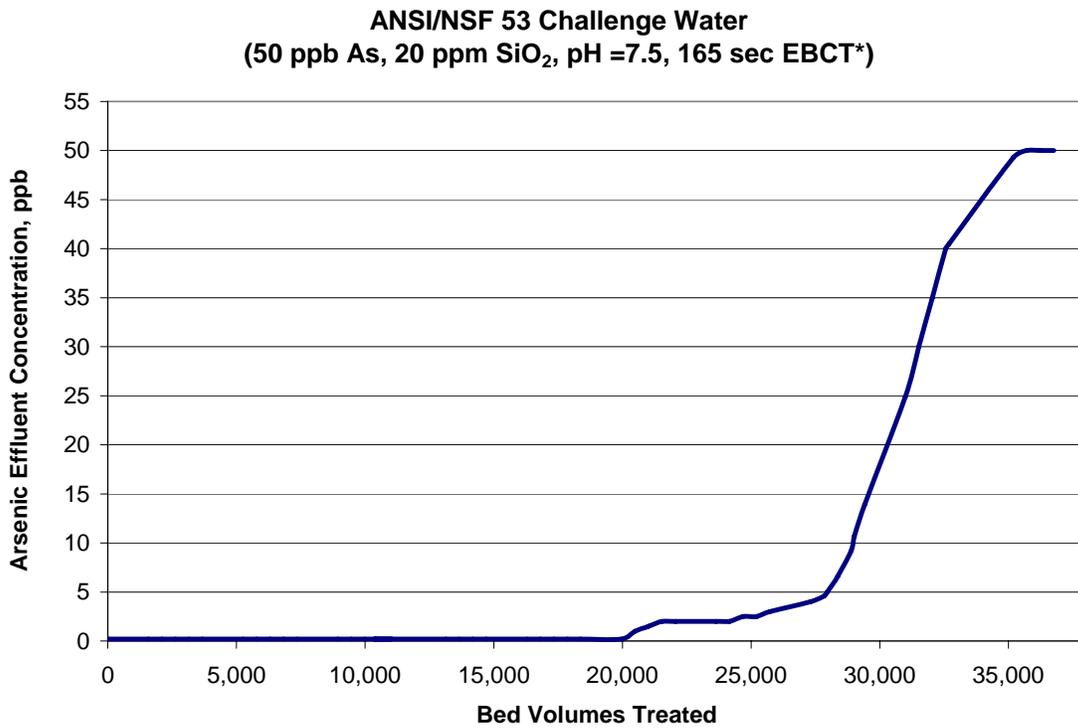


Figure 2. ADSORBSIA™ As500 media dynamic arsenic adsorption at pH 7.5. *EBCT = empty bed contact time

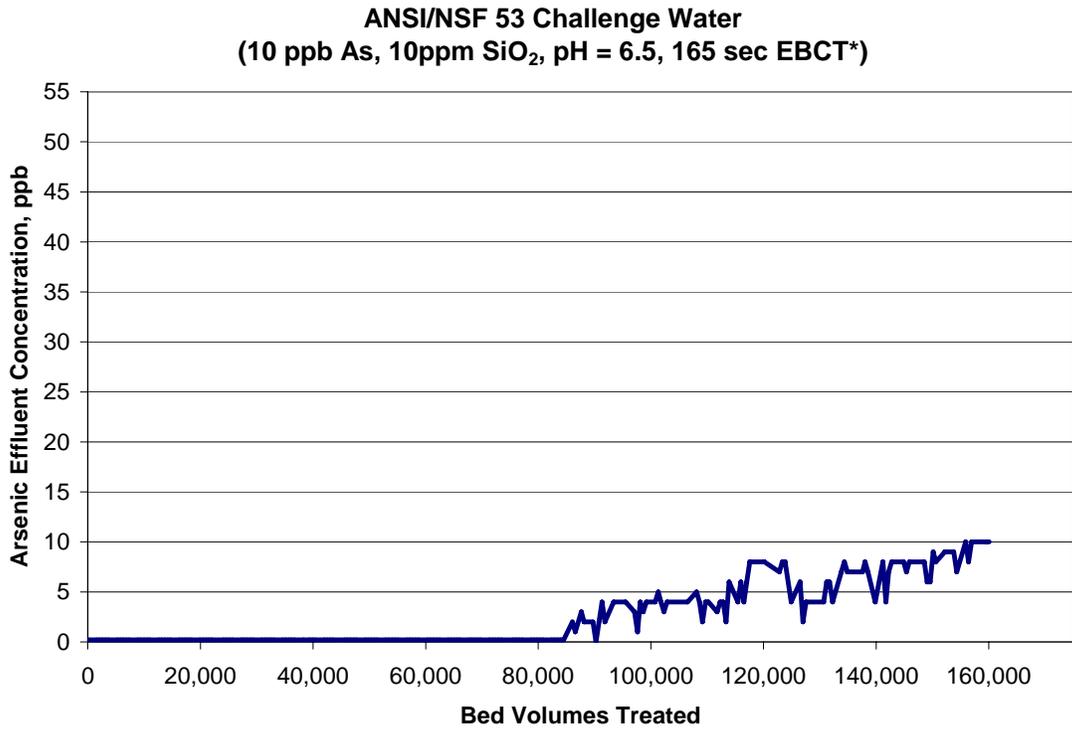


Figure 3. ADSORBSIA™ As500 media dynamic arsenic adsorption at pH 6.5, with low arsenic level. *EBCT = empty bed contact time

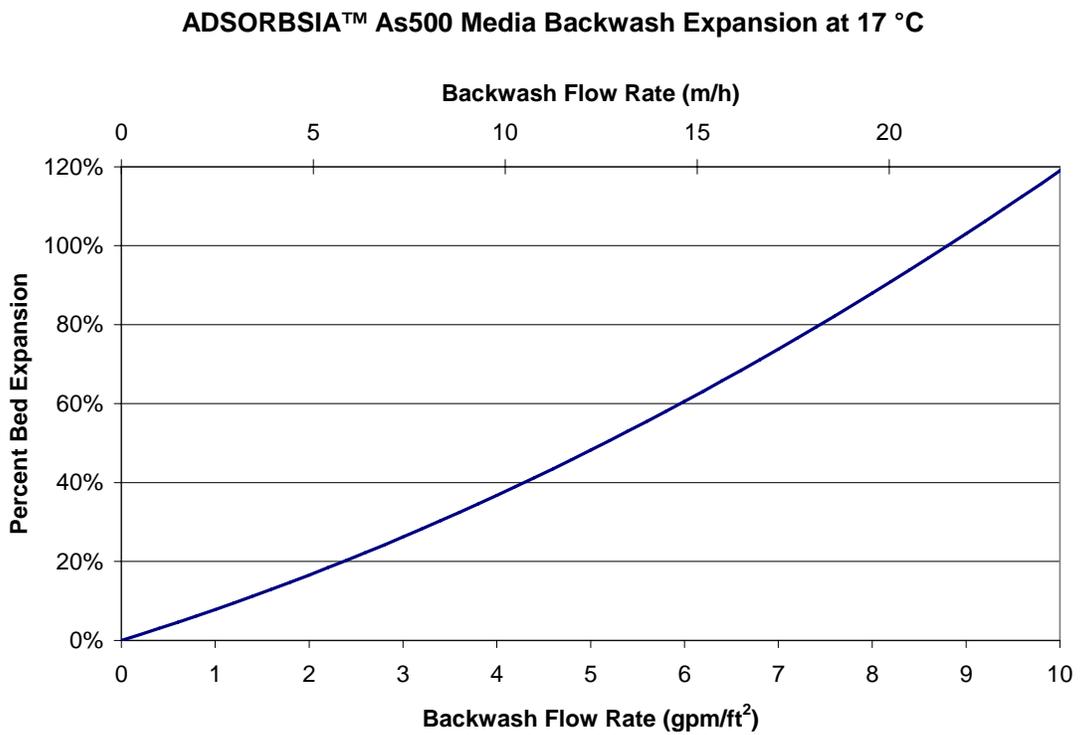


Figure 4. Backwash expansion data.

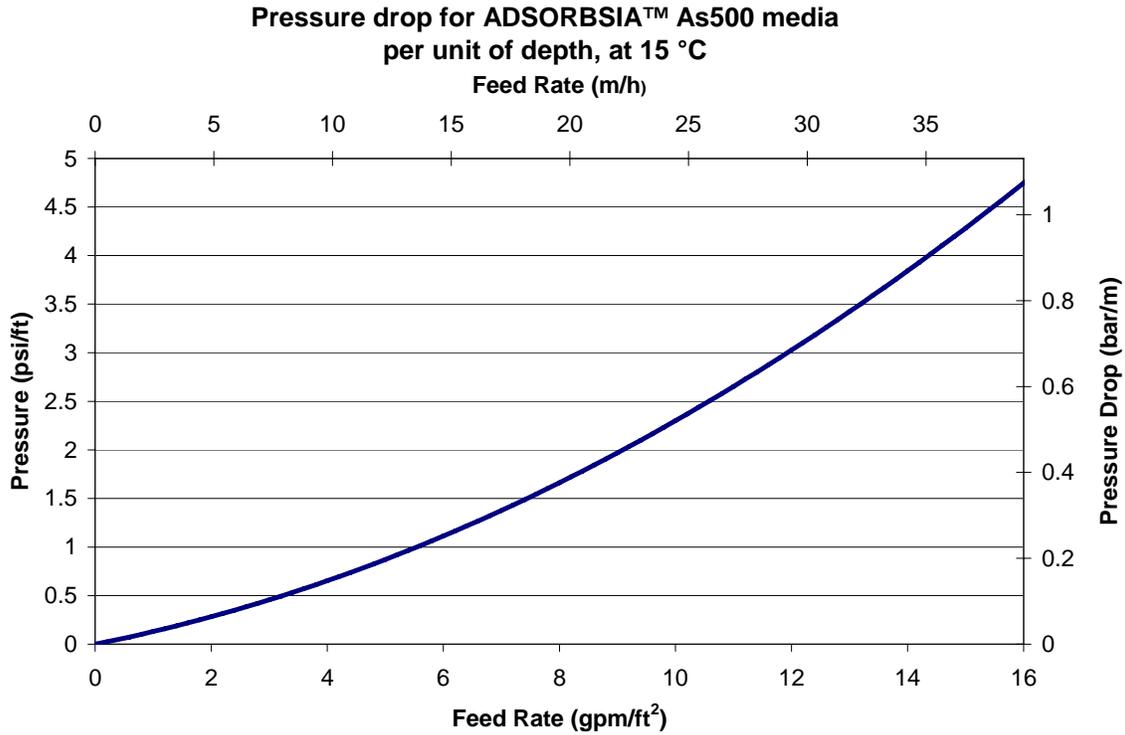


Figure 5. Pressure drop as a function of feed rate.

Note: This product may be subject to drinking water application restrictions in some countries; please check the application status before use and sale.

ADSORBSIA™ Titanium-based Media
For more information about ADSORBSIA, call Dow
Water & Process Solutions:
 North America: 1-800-447-4369
 Latin America: (+55) 11-5188-9222
 Europe: (+32) 3-450-2240
 Pacific: +60 3 7958 3392
 Japan: +813 5460 2100
 China: +86 21 3851 1000
<http://www.adsorbsia.com>

Notice: Spent media from arsenic loading tests have been shown to pass the U.S. EPA's TCLP extraction protocol as well as the WET and TTLC tests for California. These test results indicate that spent media can meet the criteria for disposal in a landfill as non-hazardous waste. However, use conditions can vary and Customers must confirm that spent media meets their local landfill requirements for disposal as non-hazardous waste.

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