

DATASHEET

No. 1211
Aug 2005

HYDRODARCO® 4000

GRANULAR ACTIVATED CARBON

HYDRODARCO 4000 is a carbon designed for water treatment applications. It is produced by high temperature steam activation of lignite coal. **HYDRODARCO 4000** has a wide pore size distribution and large pore volume. These characteristics provide **HYDRODARCO 4000** with rapid adsorption rate and high capacity for dissolved organics.

Potable Water

HYDRODARCO 4000 adsorbs taste, odor, color and toxic organic compounds from drinking water. It has the highest capacity of any commercial water carbon for tannic and humic compounds, which are precursors for trihalomethane (THM) formation. **HYDRODARCO 4000** effectively removes pesticides, herbicides, synthetic organic chemicals and many other suspected carcinogenic compounds, which may find their way into water supplies. **HYDRODARCO 4000** meets all AWWA B604 standards for activated carbon for rapid gravity filters and pressure contactors used in potable water purification systems. **HYDRODARCO 4000** is Kosher certified and meets ANSI/NSF Standard 61.

Wastewater and Contaminated Groundwater

Whether applied at point source or in a polishing filter, **HYDRODARCO 4000** can be used to meet discharge limits for most regulated organics. The broad pore size distribution of **HYDRODARCO 4000** allows treatment of complex wastewater streams containing large and small molecular pollutants. The macroporous structure of **HYDRODARCO 4000** provides high tolerance for natural organic matter (NOM), which interferes with adsorption of other organic contaminants.

Product Specifications

Molasses decolorizing efficiency	90 min.
Iodine number, mg/g	500 min.
Abrasion resistance (AWWA), %/mm	70 min.
Moisture, % as packed	8 max.
Mesh size (U.S. Sieve Series)	
Greater than 10 mesh (2.00 mm), %	5 max.
Less than 30 mesh (0.60 mm), %	5 max.
Dust, %	0.30 max.
Effective size, mm	0.6-0.8
Uniformity coefficient	2.1 max.

Typical Properties*

Tannin value, mg/L	140
pH, water extract	4.9
Apparent density, vibrating feed, g/mL	0.38
lb/ft ³	24
Bed density, backwashed and drained, lb/ft ³	21.5
Food Chemical Codex	Passes

*For general information only, not to be used as purchase specifications.

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HYDRODARCO® 4000 (continued)

Packaging/Transportation

Standard package is 40 lb bags, 30 bags per pallet for a net pallet weight of 1200 lbs. Alternate packages include woven polypropylene bulk bags, 880 lbs net, with a glued plastic liner.

Activated carbon (NOT REGULATED)

Exempt from DOT, IATA, and IMDG regulations

Import/Export classification: 3802.10.0000 (HS Tariff Classification)

Domestic Freight Classification: NMFC 040560

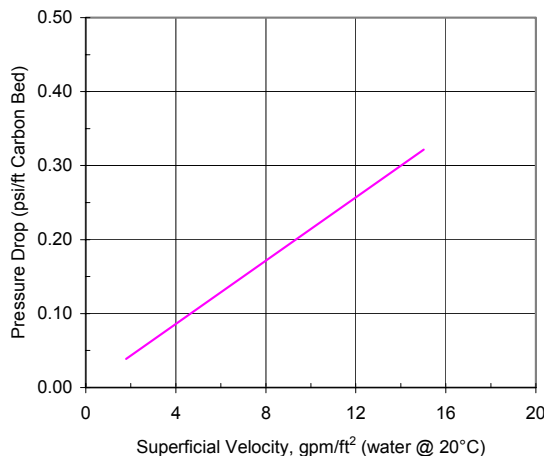
CAS # 7440-44-0

Safety

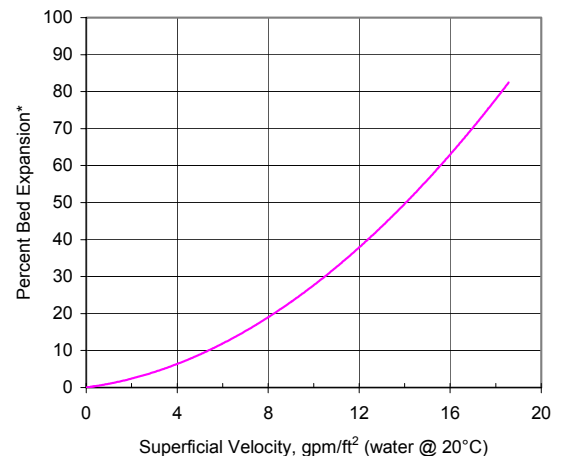
Wet activated carbon depletes oxygen from air and, therefore, dangerously low levels of oxygen may be encountered. Whenever workers enter a vessel containing activated carbon, the vessel's oxygen content should be determined and work procedures for potentially low oxygen areas should be followed. Appropriate protective equipment should be worn. Avoid inhalation of excessive carbon dust. No problems are known to be associated in handling this material. However, the product may contain up to 12% silica (quartz). Long-term inhalation of high dust concentrations can lead to respiratory impairment. Use forced ventilation or a dust mask when necessary for protection against airborne dust exposure (see Code of Federal Regulations - Title 29, Subpart Z, par. 1910.1000, Table Z-3).

Engineering Data

**Pressure Drop Curve
for HYDRODARCO 4000**



**Bed Expansion Curve
for HYDRODARCO 4000**



***Expansion is expressed as percent of the backwashed and settled bed depth.**

Note: Any specification given was valid at time of issuance of the publication. However, we maintain a policy of continuous development and reserve the right to amend any specification without notice.

