FILTRASORB® 400

Granular Activated Carbon

Description

FILTRASORB 400 is a granular activated carbon developed by Calgon Carbon Corporation for the removal of dissolved organic compounds from water and wastewater as well as industrial and food processing streams. These contaminants include taste and odor compounds, organic color, total organic carbon (TOC), and industrial organic compounds such as TCE and PCE. This activated carbon is made from select grades of bituminous coal through a process known as reagglomeration to produce a high activity, durable, granular product capable of withstanding the abrasion associated with repeated backwashing, hydraulic transport, and reactivation for reuse. Activation is carefully controlled to produce a significant volume of both low and high energy pores for effective adsorption of a broad range of high and low molecular weight organic contaminants. FILTRASORB 400 is also formulated to comply with all the applicable provisions of the AWWA Standard for Granular Activated Carbon (B604), the stringent extractable metals requirements of ANSI/NSF Standard 61, and the Food Chemicals Codex.

Features

- Calgon Carbon's reagglomerated coal-based granular activated carbons have several properties which provide superior performance in a wide range of applications.
- Produced from a pulverized blend of high quality bituminous coals resulting in a consistent, high quality product.
- The activated carbon granules are uniformly activated through the whole granule, not just the outside. This results in excellent adsorption properties and constant adsorption kinetics in a wide range of applications.
- The reagglomerated structure ensures proper wetting while also eliminating floating material.
- High mechanical strength relative to other raw materials, thereby reducing the generation of fines during backwashing and hydraulic transport.
- Carbon bed segregation is retained after repeated backwashing, ensuring the adsorption profile remains unchanged and therefore maximizing the bed life.
- Reagglomerated with a high abrasion resistance, which provides excellent reactivation performance.
- High density carbon resulting in a greater adsorption capacity per unit volume.

Specifications	FILTRASORB 400
Iodine Number	1000 mg/g (min)
Moisture by Weight	2% (max)
Effective Size	0.55 - 0.75 mm
Uniformity Coefficient	1.9 (max)
Abrasion Number	75 (min)
Screen Size by Weight, US Sieve Series	
On 12 mesh	5% (max)
Through 40 mesh	4% (max)

Typical Properties*	FILTRASORB 400
Apparent Density	0.54 g/cc
Water Extractables	<1%
Non-Wettable	<1%

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

Recycling by Thermal Reactivation

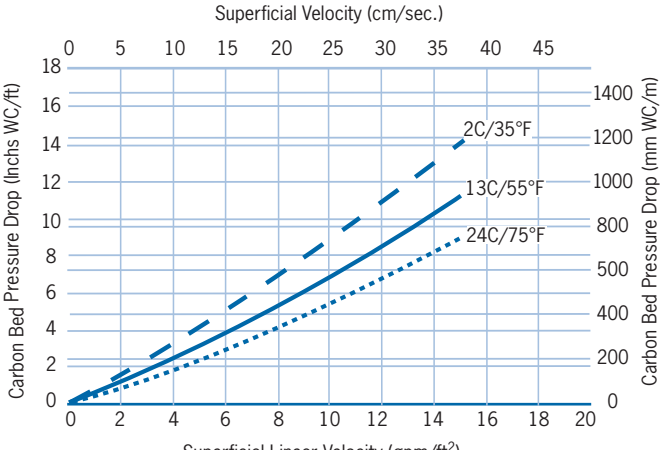
After a granular activated carbon's adsorptive capacity has been exhausted, it can be returned to Calgon Carbon for thermal reactivation. The thermal reactivation process involves a high temperature reaction with steam, which destroys the adsorbed organic compounds and restores the adsorptive capacity of the activated carbon.

Through reactivation, the spent activated carbon can be recycled for reuse, eliminating the costs and long-term liability associated with disposal of spent GAC. The benefits of a reactivated product over a virgin carbon are several, including economic, as reactivated GAC cost less than virgin GAC and environmental, as reactivated GAC conserves natural resources and reduces CO_2 emissions compared to the manufacture of virgin GAC. A further benefit of reactivating and reusing spent granular activated carbon is the ability for customers to ensure for themselves a reliable supply of media when needed, as the spent/reactivated carbon represents a renewable resource.

FILTRASORB 400 is designed with high mechanical strength and a dense, fully-developed pore structure to ensure low losses throughout the reactivation process and excellent adsorption performance upon reuse.

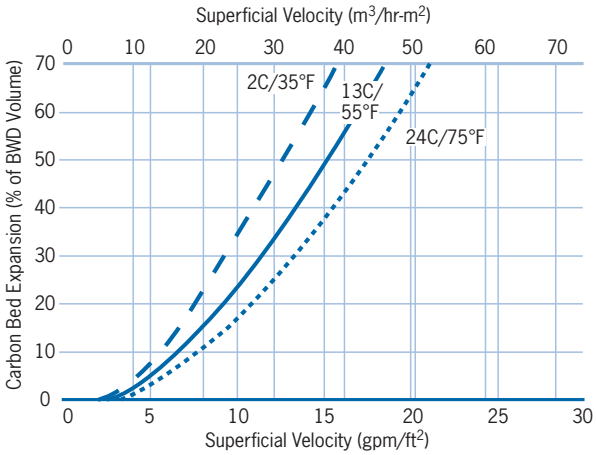
Pressure Drop

Based on Backwashed and Segregated Bed



Bed Expansion

Based on Backwashed and Segregated Bed



Applications

FILTRASORB 400 activated carbon can be used in a variety of liquid phase applications for the removal of dissolved organic compounds. FILTRASORB 400 has been successfully applied for over 40 years in applications such as drinking and process water purification, wastewater treatment, and food, pharmaceutical, and industrial purification.

Design Considerations

FILTRASORB 400 activated carbon is typically applied in down-flow packed-bed operations using either pressure or gravity systems. Design considerations for a treatment system is based on the user's operating conditions, the treatment objectives desired, and the chemical nature of the compound(s) being adsorbed.

Packaging

55 lb. (25 kg) poly bag

1,000 lb. (454 kg) super sack

Bulk truck

Safety Message

Wet activated carbon preferentially removes oxygen from air. In closed or partially closed containers and vessels, oxygen depletion may reach hazardous levels. If workers are to enter a vessel containing carbon, appropriate sampling and work procedures for potentially low oxygen spaces should be followed, including all applicable federal and state requirements. Please refer to the MSDS for all up to date product safety information.

Filtrasorb is 100% freshly manufactured virgin granular activated carbon. Recycled granular activated carbon is not used in the production of Filtrasorb.

Making Water and Air Safer and Cleaner

www.calgoncarbon.com

Corporate Headquarters
Calgon Carbon Corporation
500 Calgon Carbon Drive
Pittsburgh, PA USA 15205
800.422.7266
412.787.6700
412.787.6713 Fax

www.calgoncarbon.com

European Operations
Chemviron Carbon Corporation
Zoning Industriel C de Feluy
B-7181 Feluy, Belgium
+ 32 (0) 64 51 18 11
+ 32 (0) 64 54 15 91 Fax

Asia Operations
Calgon Carbon Asia Pte Ltd.
9 Temasek Boulevard
#26-02 Suntec Tower Two
Singapore 038989
+65 6221 3500
+65 6221 3554 Fax

Your local representative

Copyright© 2012 Calgon Carbon Corporation, all rights reserved.