

FILTRASORB® 400

Granular Activated Carbon for Municipal Specifications



Description

FILTRASORB® 400 is a granular activated carbon developed by Calgon Carbon Corporation for the removal of taste and odor compounds, disinfection by-product precursors, and other dissolved organic compounds from potable water. Although this product can be used for ground water applications, it was specifically developed for surface water applications with higher levels of background total organic carbon.

This activated carbon is made from selected grades of bituminous coal to produce a high activity, durable granular product capable of withstanding the abrasion associated with repeated backwashing, air scouring, and hydraulic transport. Activation is carefully controlled to produce a product with a significant volume of lower energy pores as measured by iodine number, while still maintaining a high trace capacity number for effective adsorption of a broad range of high and low molecular weight organic contaminants. The product is also formulated to comply with all the applicable provisions of the AWWA Standard for Granular Activated Carbon, edition B604-05, the stringent extractable metals requirements of ANSI/NSF Standard 61, and the Food Chemicals Codex.

Specifications

Specifications	Value
Iodine Number.	1000 mg/g (min)
Moisture by weight	2% (max)
Effective size	0.55 - 0.75 mm
Uniformity Coefficient	1.9 (max)
Abrasion No.	75 (min)
Trace Capacity Number	10 mg/cc (min)
Screen Size by weight, US Sieve Series	
On 12 mesh	5% (max)
Through 40 mesh	4% (max)

Typical Property

Typical Property	Value
Apparent Density	0.52 g/cc
Ash by weight	9%

Features

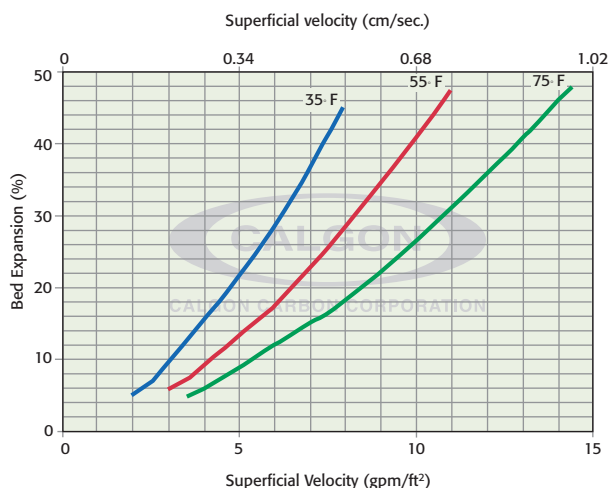
Bituminous-based raw material
Coal is pulverized and reagglomerated with suitable binder

Benefits

Provides higher hardness relative to other raw materials reducing the generation of fines and product losses during backwashing.
Pore structure provides a product with a significant volume of lower energy pores as measured by iodine number, while still maintaining a high trace capacity number.
Wets readily, and does not float, thus minimizing loss during backwash operations.
Creates optimal transport paths for faster adsorption.

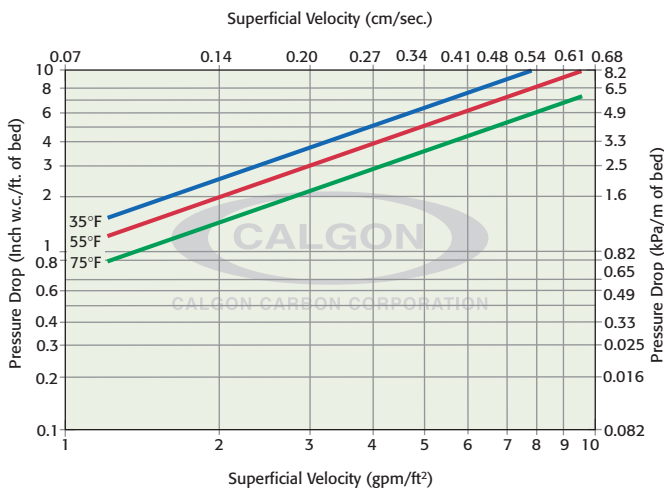
Bed Expansion

Based on backwashed and segregated bed



Pressure Drop

Based on backwashed and segregated bed



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Applications

FILTRASORB® 400 activated carbon can be used to treat surface and groundwater sources for the production of drinking water. This product can be used as a complete replacement for sand and anthracite media. FILTRASORB® 400 activated carbon functions as a dual purpose media, providing both filtration and adsorption. FILTRASORB® has been used successfully in drinking water applications for over 40 years.

Design Considerations

As a replacement for existing filter media, conversion to FILTRASORB® 400 granular activated carbon imposes no major changes to a plant's normal filtration operations. Calgon Carbon Corporation can also provide complete modular adsorption systems as an add-on treatment stage if required.

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.



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