FILTRASORB® 816D & 820D

Granular Activated Carbons for Drinking Water

Description

Filtrasorb 816D and Filtrasorb 820D are two high activity granular activated carbons developed by Calgon Carbon Corporation for the removal of taste and odor compounds and dissolved organic compounds in potable water treatment.

These activated carbons are manufactured 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 an exceptionally high internal surface area with optimum pore size for effective adsorption of a broad range of high and low molecular weight organic contaminants.The product is also designed to comply with all the applicable provisions of the AWWA Standard for Granular Activated Carbon edition B604-90, the stringent extractable metals requirements of ANSI/NSF Standard 61 and Food Chemicals Codex.

Features

- Bituminous-based raw material
- High density
- 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.
- Generates the hardness and abrasion resistance required for thermal reactivation and minimizes generation of fines in operations requiring backwashing.
- Pore structure provides a wider range of contaminant removal capabilities relative to other starting materials.
- Wets readily and does not float, thus minimizing loss during backwash operations.
- Creates optimal transport paths for faster adsorption.

Specifications	F816D	F820D
Iodine Number	900 mg/g (min)	900 mg/g (min)
Methylene Blue	200 mg/g (min)	200 mg/g (min)
Moisture by Weight	2% (max)	2% (max)
Abrasion Number	75 (min)	75 (min)
Hardness Number	90 (min)	90 (min)
Apparent Density	0.47 g/cc (min)	0.47 g/cc (min)
Apparent Density	0.57 g/cc (max)	0.57 g/cc (max)
Effective Size	1.3 mm (min)	1.0 mm (min)
Effective Size	1.5 mm (max)	1.2 mm (max)
Uniformity Coefficient	1.4 (max)	1.4 (max)
Screen Size by Weight, US Sieve Series		
On 8 mesh	15.0 (max)	5.0 (max)
Through 16 mesh	5.0 (max)	—
Through 20 mesh	—	4.0 (max)

Typical Properties	F816D	F820D
Ash by Weight	12%	12%

Applications

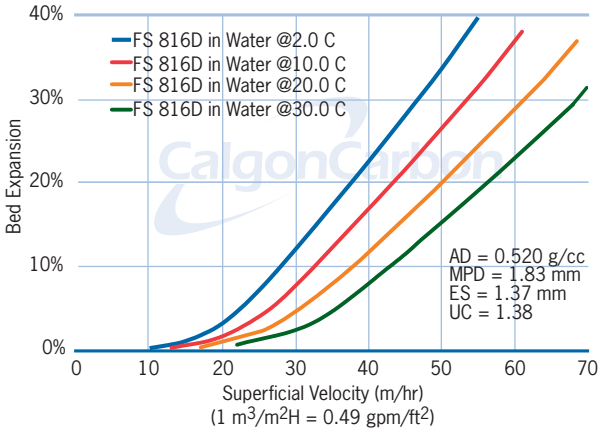
Filtrasorb 816D and 820D are used primarily to treat surface water sources for the production of drinking water.These carbons are coarser mesh media and are generally used in deep bed filters where pressure drop may be a concern. Filtrasorb 816D and 820D carbons function as dual purpose media, providing both filtration and adsorption.

Design Considerations

As a replacement for existing filter media, the conversion to Filtrasorb 816D or 820D activated carbon imposes no major changes to a plant's normal filtration operations. If more contact time is required, the height of the backwash troughs can be increased. Calgon Carbon Corporation can also provide complete modular adsorption systems as an add-on treatment stage if required.

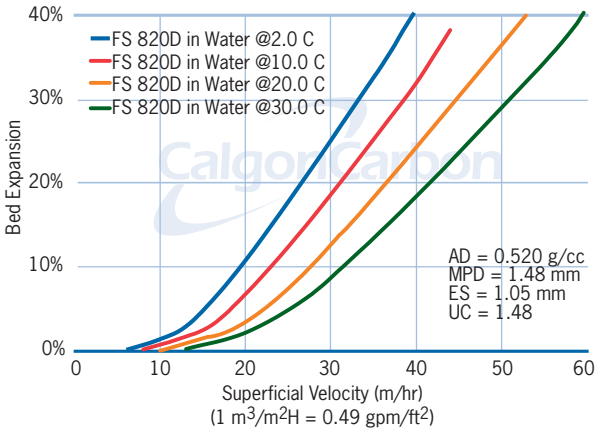
FILTRASORB 816D Bed Expansion

Backwashed and Segregated



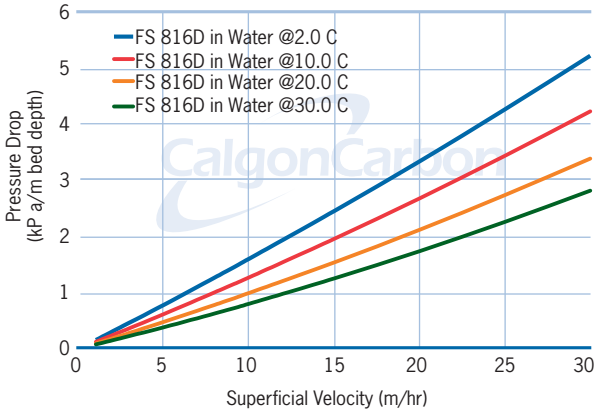
FILTRASORB 820D Bed Expansion

Backwashed and Segregated



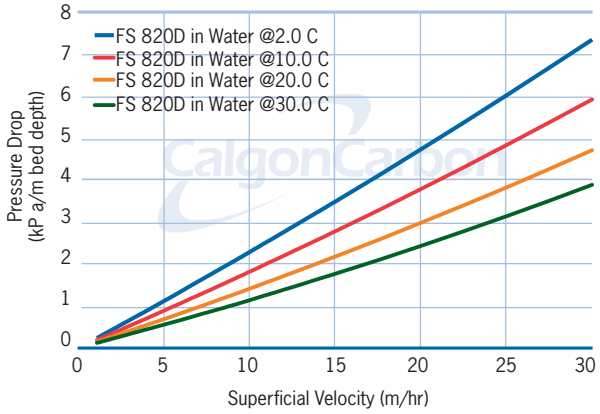
FILTRASORB 816D Pressure Drop

Backwashed and Segregated



FILTRASORB 820D Pressure Drop

Backwashed and Segregated



Packaging

Packaged in 25 kg polyethylene and

500 kg polypropylene bags shipped from our warehouse in Tianjin.

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.

Making Water and Air Safer and Cleaner

CalgonCarbon

Your local representative