Making Water and Air Safer and Cleaner



FILTRASORB® 100 & 200

Granular Activated Carbons for Potable Water

Description

FILTRASORB® 100 and FILTRASORB® 200 are two 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 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 B604-05, the stringent extractable requirements of ANSI/NSF Standard 61, and the Food Chemicals Codex.

Applications

FILTRASORB® 100 and 200 activated carbons can be used to treat surface and groundwater sources for the production of drinking water. These carbons can be used as a complete replacement for sand and anthracite media. FILTRASORB® 100 and 200 carbons function as 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® 100 and 200 granular activated carbons impose 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.

S pecifications	F100	F200
A.D. g/cc (max)	0.62	0.48-0.62
lodine Number, mg/g (min)	850	850
Moisture, weight % (max)	2	2
Abrasion Number (min)	75	75
Effective Size, mm	0.8-1.0	0.55-0.75
Uniformity Coefficient (max)	2.1	1.9
Ash, weight % (max)	-	8
Apparent Density, g/cc (min)	-	0.48
US Sieve Series, weight %		
Larger than No. 8 (max)	15	-
Smaller than No. 30 (max)	4	-
Larger than No. 12 (max)	-	5
Smaller than No. 40 (max)	-	4

Features

Benefits

- Bituminous-based raw material
- 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 minimizing generation of fines in operations requiring backwashing
- Coal is pulverized and reagglomerated with suitable binder
- Pore structure provides a wider range of contaminant removal capabilities relative to other starting material
- High density, wets readily, and does not float, thus minimizing loss during backwash operations
- Creates optimal transport paths for faster adsorption

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