

Specification Natural Charcoal

Product Code: 090500000002

Natural Charcoal is currently used by a number of companies as a unique adsorption media for the removal of colour and metals from surface water for the production of drinking water.

Colour in water is often caused by either organic molecules such as humic or fulvic acids or by the metals ions of iron and manganese.

Natural Charcoal is unique in that it will adsorb both types of colourant. It consists of a mixture of a complex calcium phosphate and carbon arranged around an extensive pore structure. The pores are "macropores", ideal for the adsorption of large organic molecules such as humic and fulvic acid, while the complex phosphate structures remove iron and manganese by a complex method including ion exchange. Natural bone char will also remove heavy metals such as lead, cadmium, copper and zinc from contaminated water.

Where surface water is used to manufacture drinking water, the sources are often contaminated with organic molecules, are remote and can be cut off by snow and rain during winter months. Water Companies still need to supply these places with drinking water.

For water companies or local authorities, the supply of high quality water to these remote areas at all times, without high capital investments and high operating costs, is a difficult challenge.

A Natural Charcoal adsorption unit can be installed to provide drinking water to these rural sites. A fully automatic, individual unit can be installed that can function for weeks between checking and servicing.

There are no chemicals to prepare and no on-going spent chemicals to dispose of. The only power required is that to pump the water to the users. and under some circumstances the whole unit can be gravity fed – a truly unique solution.

Typical Analysis:

ACID INSOLUBLE ASH:	5% max
WATER EXTRACTABLE: PAH	0.02 µg/l max
GRIST DETAILS:	15% max on 16 Tyler mesh, opening 1000 µm
	6% max through 48 Tyler mesh, opening 300 µm
	2% max through 60 Tyler mesh, opening 250 µm
CARBON	8.5% minimum
MOISTURE	5.0% maximum
BULK DENSITY	0.6 to 0.7 grms/cm ³
TOTAL SURFACE AREA(Bet N ²)	80 -130 m ² /g
CARBON SURFACE AREA	40 - 60 m ² /g

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