AFRICAN PEGMATITE
MILLERS AND PROCESSORS OF BASE MINERALS

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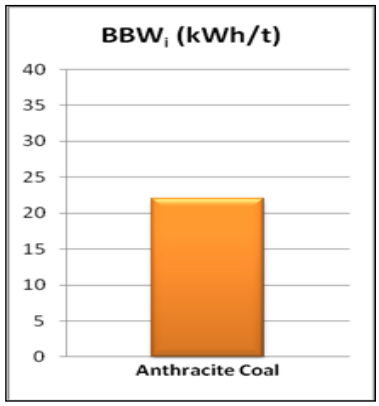
DATA SHEET

Anthracite Water Filter Media
Grade: (+1.0mm; -1.7mm)
Use: Water Filtration

Physical Properties:

Particle Sizing	+1.7mm: max 5%
	-1.0mm: max 3.2%
Inherent Moisture	2.2%
Ash (Dry basis)	16.0%
Calorific Value MJ/kg	29.0 – 31.0
Volatile Matter (Dry basis)	6.0%
Dry Bulk Density kg/m^3	825
Specific Gravity	1.45 g/cm^3
Solubility 40% HCl	0.0%
Fixed Carbon (Dry basis)	75%
Uniformity Coefficient	1.33
Mean Effective Size – D10 micron	1200
Bondwork Index	20-22 (kWh/mt)
Hardgrove Index (ASTMD 409)	47.0
Material Bed Porosity	0.55%



Application & General Characteristics:

-Water filtration applications for the removal of suspended solids in liquids and solvent extraction of non-ferrous metals.
-The overall physical quality of the material is measured by the Bond Work Index, expressed as kWh/mt, indicating the material's resistance to grinding. Higher values indicate higher power input requirement & thus higher quality. African Pegmatite's Anthracite higher value of 22 kWh/mt classifies it as a very hard and durable material.
By comparison TALC (very soft) has1-5 kWh/mt., Coal 14 kWh/mt., Coke 15-21 kWh/mt. & Silicon Carbide 27 kWh/mt.
-The material also has a high chemical resistance.
-Used typically as a component in a dual or multi-media water filtration configuration for attraction of suspended organic particles and the capture of inorganic particles, as well as a single filtration medium in certain applications.
-Particle size distribution, suspended solid characteristics & concentration & filtration velocity will determine filtration efficiency.
-Used also in solvent extraction of non-ferrous metals.
-Backwash velocity and freeboard requirements are defined by what is required for the fluidisation of the more dense medium or media underlying the Anthracite in a dual/multi medium filtration column, as well as material bed depth & vessel diameter.
-A backwash velocity of ± 40 m/h is generally sufficient to provide effective bed fluidisation.

Packaging:

Packed in 40kg polypropylene bags, stretch wrapped on pallets or 1 ton bulk bags.

SABS ISO 9001

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