

## **Anthracite Grade 2**

Size range 1.2 – 2.5mm (other sizes are available)

### **Application**

Used in water filtration for the removal of algae, turbidity and bacteria and to ensure longer filter runs.

### **Characteristics**

Source:	Pure Welsh Anthracite
Fixed Carbon:	90%
Specific Gravity:	c 1.4
Bulk Density:	c 740 kg/m <sup>3</sup>
Hardness:	c 3 MOh
Effective Size:	1.3
Uniformity:	<1.5
Attrition Loss:	Maximum 0.4% after 100 hours backwash
Solubility:	Maximum 1.5% in 10% HCl @ 20°C, Maximum 1.5% in 10% NaOH @ 20°C

### **Mechanical Analysis**

<b>Sieve Size</b>	<b>Typical Grading % Retained</b>	<b>% Cumulative Retained</b>	<b>% Passing</b>
2.5	2.2	2.2	97.8
2	22.5	24.7	75.3
1.6	32.4	57.1	42.9
1.4	22.5	79.6	20.4
1.2	16.1	95.7	4.3

### **Advantages**

Anthracite is designed so that the larger anthracite particles are at the top of the filter and the smaller sand particles are at the bottom of the filter. This has several advantages over a single media filter

- Increased filtration rates
- Longer filter runtimes
- Reduced backwash water consumption

A bed of anthracite placed on top of the sand layer provides the filter with

- Larger grain particles to the surface of the filter which delays binding and pressure drop across the filter.
- A larger reservoir in which the floc may be held before backwashing.

Anthracite is produced to the European Standard **BS EN 12909 - 2005**.

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