

Activated Carbon

At Aqua (Scotland) Ltd our water treatment carbons have been developed to offer customers a range of products that will help them to produce the high standard of treated water, that is required for their process applications and business requirements. Because the Aqua (Scotland) Ltd range of water treatment carbons are manufactured from bituminous coal and coconut shell, in both granular and powder form, customers can be confident of being able to select the appropriate carbon for their particular water treatment application.

All of the Aqua (Scotland) Ltd water treatment carbons are proven as successful solutions for the wide range of water treatment techniques used by our many customers. This is because the range that can be offered is cost effective, high quality and reliable with a proven track record.

Due to the unique properties of activated carbons Aqua (Scotland) Ltd provide customers with the performance they expect from one of the worlds leading carbon suppliers.

Industrial Applications:

- Municipal Water Treatment
- Municipal Effluent Treatment
- Industrial Effluent Treatment
- Soft Drink Plants
- Breweries
- Food Industry
- Power Stations
- Electronics Industry
- Reverse Osmosis Units
- Desalination Plants
- Point of Use Filters
- Pre-filters to ION Exchange media
- Window cleaning systems

Typical Applications:

- Continuous or Periodic Dosing of Drinking and Waste Water
- Decolourisation of Water
- Removal of Taste and Odour
- Elimination of dissolved Pollutants and Pesticides
- Removal of Dissolved Organic Matter
- Steam Condensate Treatment

Packaging

Aqua (Scotland) Ltd, supply water treatment carbons in black 25Kg sacks with a polypropylene liner or in a full polypropylene sack. These can be supplied on pallets of up to 500kg net weight or as individual sacks. Alternative forms of packaging are available on special request.

History of Activated Carbon

Activated carbon is acknowledged for its versatility as a tried and tested adsorbent with a wide range of applications. Organic compounds are retained on the surface of the carbon by weak intermolecular forces - (*Van der Waals* forces).

Historically

The ancient Egyptians used *charcoal* (the precursor of activated carbon) ostensibly for medical purposes in around 1500BC.

The Romans also used charcoal to purify water and beer.

Activated carbon filters were used during the First World War to protect against chemical weapons.

Activated carbon is manufactured by the controlled burning of such carbon rich materials as coal, wood, and coconut shell, and is then either steam or chemically activated to develop the internal pore structure still further. Activated carbons have internal surface areas in the region of 1200m² per gram. It is this enormous area, which readily makes them effective adsorbents.

