FILTEC Specialty Water Treatment Media

Filter Media

Filter Coal / Anthracite

Anthracite Filter Coal is used extensively in water filtration and in water treatment because of its excellent filtration properties.

Anthracite coal is a top quality coal that consists of hard, durable coal particles that come in various sizes. Anthracite is used along with silica sand (dual media system) or with silica sand and filter rock (mixed media system) or by itself (mono media system).

Anthracite promotes higher service flow rates and longer filter runs with less head loss than single media filter beds. Backwash rates are reduced as well. Low uniformity coefficient anthracite filter media extends the life of your filter before the media must be changed out

- Higher service flows and longer filter runs than equivalent filters
- Durable material with long life and temperature range
- Requires lower backwash rate
- Ideal for DI sub-fill requirements and hot process filtering applications
- Contains no silica

SKUs: 82-006, 82-006B, 82-006C Filter Coal options

Filter Sand

Filter sand is hard grained quartz or silica sand having no constituent and is not friable or liable to mechanical breakdown when subject to pressure.

The sand contains no carbonaceous matter, clay or silt and the loss on acid washing and ignition in each case is less than 2% by weight. Its specific gravity is not less than 2.2 or more than 2.5, and is within the size range of 0.6 mm to 2 mm.

SKU: SAND-20KG

Filter Gravel

Filter Gravel is an extremely effective filter media because of its ability to hold back precipitates containing impurities.

Filter gravel size, angularity and hardness are the important filter sand characteristics to ensure proper filtering. Specific Gravity: 2.70

SKU: GRAVEL-20

Garnet

Garnet is a high hardness, high density granular filter media. It is normally used as the lower (final) filtration in a multi-media bed down flow filtration system.

A properly designed multi-media system will maintain its unique grading of large grains on top and small grains on the bottom and provide superior performance even after many backwashings. This stable condition of large grains above finer ones is achieved by the use of materials of different sizes and specific gravities.

Garnet with its high specific gravity of 4.0 forms the lower fine grain layer, its 0.3 mm effective size can filter down to the 10-20 micron range. Filter Sand, (effective size of 0.5 mm) and Anthracite, (effective size of 0.9 mm) can form the larger, less dense layers.

- Two grades:

SKU: GARNETA = course
SKU: GARNETC = fine

Aqualite™

Aqualite™ can only be used in FILTEC designed, installed or approved systems and as per NZDWS2008 FILTEC are required to give a written guarantee on performance.

For filtration applications that demand high flow rates and increased water quality, Aqualite™ Engineered Ceramic Media delivers more performance on a smaller equipment footprint. Available in common filtration sizes, Aqualite™ media spheres optimise filtration performance with their remarkably greater surface area. Aqualite™ is tough and durable. It's a chemically inert medium that provides excellent resistance to acids, caustics, oxidants, and ferric salts.

Uniform properties of Aqualite™ include the shape, size, sphericity, density and composition of the filter granules. These qualities bring uniformity to filter bed porosity, bulk density and macroscopic behaviour.

- Ideal for use in surface water filtration and membrane pre-filtration
- Removes Cryptosporidium to 2 logs
- Aqualite™ has been tested by Massey University to meet AS/NZ4348:1995

SKU: AQUALITE

FILTEC
Making Water Safer

Adsorption Media

Activated Carbon

Activated carbon, also called activated charcoal, activated coal, carbo activatus or an "AC filter", is a form of carbon processed to have small, low-volume pores that increase the surface area available for adsorption or chemical reactions.
Due to its high degree of microporosity, just one gram of activated carbon has a surface area in excess of 500 m^2, as determined by gas adsorption. An activation level sufficient for useful application may be attained solely from high surface area; however, further chemical treatment often enhances adsorption properties.

FILTEC supplies a wide range of bulk Granular Activated Carbon (GAC) filter media to handle organics removal in industrial, municipal, remediation and other applications. We have an extensive line of granular activated-carbon filter media for both liquid phase and vapour phase adsorption applications. FILTEC can supply virgin coconut activated carbon and coal-based GAC as well as reactivated carbon for various adsorption processes.

- For standard chlorine and organic removal use SKU: AQUASORB H200

ARSENIC REMOVAL MEDIA

A proven, safe, and simple solution to arsenic removal challenges for potable use.
GFH® DRY Media is a specially designed adsorbent media based on granular ferric hydroxide. It is specifically designed for the removal of arsenic (arsenate (As+5) and arsenite (As+3)) from water and can remove other heavy metals as well. The arsenic removal requires no preconditioning or pre-oxidation. Applied in a downflow packed bed configuration, it is easily applied to municipal wellhead applications.

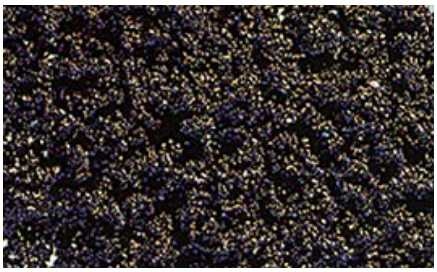
Features and Benefits

- ANSI / NSF 61 Certified for use in Potable Water Applications
- Consistent removal of both arsenate and arsenite forms of arsenic, even during sudden changes in influent arsenic concentration.
- Standard systems using GFH® DRY Media are designed for flows from 1 to 5,000 gpm and higher.

Compact designs that require minimal operator attention.

- High arsenic capacity resulting in long media bed life and reduced frequency of media exchange.
- Does not impact water pH.

In addition to arsenic, GFH DRY Media has been demonstrated to provide removal of several other contaminants, including:
- Phosphate
- Antimony
- Copper



pH Neutralising Media

Akdolit® CM G (Gran)

Granulated dolomitic material for fast neutralisation

Akdolit® CM G (Gran) is a highly reactive half-burnt dolomitic filter material with a spherical granular form, especially suitable for pneumatic conveying and silo feeding. It is used for the neutralisation of water (by filtering) in order to achieve the calco-carbonic equilibrium and to meet the requirements of the Drinking Water Ordinance. Through this calco-carbonic equilibrium process, an increase in the concentration of the calcium, magnesium and hydrogen carbonate ions is achieved, which is favourable to prevent corrosion.

SKU:AKDOLIT-25 AKDOLIT CM GRAN - 25Kg Bag

Oxidation Media

Greensand Plus™

Greensand Plus™ is a purple-gray filter media used for removing soluble iron, manganese, hydrogen sulfide, arsenic and radium from well water supplies.

The substrate media has a manganese dioxide coated surface that acts as a catalyst in the oxidation- reduction reaction of iron and manganese. The difference between Greensand Plus™ and manganese greensand is in the substrate that forms the core of the media and the method by which the manganese dioxide coating is attached to that substrate. Greensand Plus™ has a silica sand core and the coating is fused to it while manganese greensand has a glauconite core and the coating is ionically bound to it.

The silica sand core of Greensand Plus™ allows it to better withstand operating conditions in waters that are low in silica, TDS and hardness. Thus, if you currently are using manganese greensand and are feeding sodium aluminate, you will likely be able to eliminate the aluminate feed by switching to Greensand Plus™.

Also, Greensand Plus™ can withstand higher operating temperatures and higher differential pressures than can manganese greensand. The higher differential pressure may allow for a longer run length, but, if nothing else, allows for more operational margin of error.

- Greensand Plus™ uses chlorine to regenerate – removing the need to use potassium permanganate

SKU: GREENSAND

Ion Exchange Media

Softener Resin

SKU: CAT100E – **for Standard Domestic and Commercial use**.
SKU: HPR1200H – **for scale (Calcium) removal as well as iron and manganese**

A water softener is packed with resin beads. Hard water with calcium and magnesium flows through this resin and, in a process called ion exchange, the hardness ions in the water trade places with soft ions on the resin beads. The result is soft water.
Over time, the resin beads in the water softener will become covered with calcium and magnesium ions, diminishing their capacity to soften hard water. Through a process called regeneration, water is automatically flushed through the water softener with a concentrated amount of regenerant. Now the resin beads pick up the soft ions from the regenerant in exchange for the hardness on the beads.

Colour Change Resin Beads

SKU: MB-6113 AmberLite H/OH Ion Exchange Resin
SKU: AP12DI-RFL Deionising Refill Pack

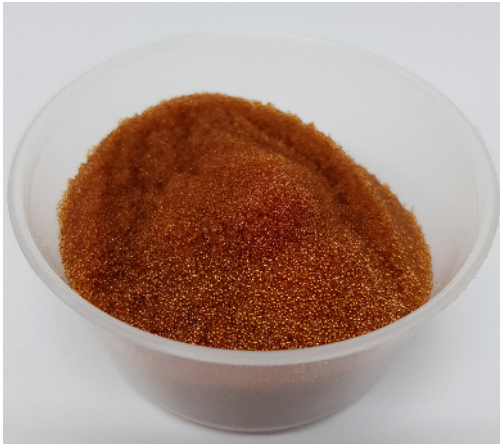
This mixed bed (cation and anion) moist spherical bead deionisation resin is ideal for small cartridge deionisation systems where ultra-pure water is required (medical, dental, aquarium, etc.) with LOW flow rates.

- Colour change resin beads throughout the media give visual indication as the media becomes exhausted (from blue-green to amber-yellow)
- Laboratories and low water use applications (<5 L/min)
- Corrosive test chambers
- Dentistry, Laboratories

Deionising Resin (Ion/Cation)

SKU: 4200CL AmberLite HPR4200CL Anion Resin
SKU: 1000H AmberLite HPR1200H Cation Resin

Used in High Quality Water Systems to provide less than 2 micro siemens conductivity water for boilers, membrane rinsing, after Reverse Osmosis Systems (ROs), steaming, etc.



Non-colour Change Resin

SKU: MB20 AmberLite H/OH Ion Exchange Resin

This mixed bed (cation and anion) moist spherical bead deionisation resin is ideal for ultra-pure water applications (medical, dental, aquarium, etc.) with HIGH flow rate.

Used in Reverse Osmosis Polishers (as used by Auckland University), or for making up Deionised Water for power stations, etc.

- This is a more cost effective resin, used in applications with higher water flows up to 75 L/min
- Media is replacement only and not regenerated

Note: FILTEC does not warranty the effectiveness or water quality resulting from equipment using the media in this brochure. The media is supplied to specification only.

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