KT-20

High Performance Iron Removal Media

KT-20 is an efficient and high performance media for the reduction of dissolved iron and manganese compounds from raw water supplies. It may be used in either gravity fed or pressurized water treatment systems. KT-20 filter media acts as an insoluble catalyst to enhance the reaction between dissolved oxygen (D.O.) and the iron compounds. In ground waters the dissolved iron is usually in the ferrous bicarbonate state due to the excess of free carbon dioxide and is not filterable. KT-20, acting as a catalyst between the oxygen and the soluble iron compounds, enhances





the oxidation reaction of Fe++ to Fe+++ and produces ferric hydroxide which precipitates and may be easily filtered.

PHYSICAL PROPERTIES:

0	·Color	Black
0	·Bulk Density	72 lb/ft³
0	·Mesh Size	2 x 50
0	·Specific Gravity	2.0 gm/cc
0	·Effective Size	0.48 mm
0	·Uniformity Coefficient	2.7

CONDITIONS FOR OPERATION:

•	water temp	100 _i F/38 _i C
•	Water pH	6.8-9.0
•	Dissolved Oxygen	15% of iron & 29% of manganese content.
•	Bed depth	30-36 in.
•	Freeboard	40%
•	Backwash rate	10-12 gpm/sq. ft.
•	Service flow rate	3.5-5 gpm/sq. ft

INFLUENT AND BACKWASH LIMITATIONS

- Free chlorine concentration less than 0.5 ppm
- Hydrogen Sulfide should be removed prior to contact with KT-20 media
- Oil: None Present
- Polyphosphates: None present

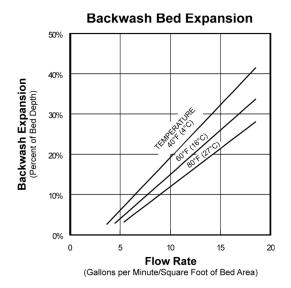
APPLICATIONS

- Under the proper conditions, no chemicals to purchase for maintenance.
- Regeneration not required.
- Iron removal efficiency is extremely high.
- Negligible labor cost: only periodic backwashing required.
- Durable material with a long life and wide temperature range.

KT-20 Pressure Drop Graph

Service Flow Pressure Drop Pressure Drop (Pounds per Square Inch/Foot of Bed Depth) 0.6 0.5 0.4 0.3 0.2 0.1 .05 Flow Rate (Gallons per Minute/Square Foot of Bed Area)

KT-20 Backwash Expansion Graph



ADVANTAGES

- △ The shape of particles allows suspended particles to be retained over the depth of the filter bed
- △ It complements mixed filters very well, particularly KT-20 filter media
- △ Allows for higher flow rate compared to sand
- △ Smaller pressure drop compared to sand
- △ Faster backwash rate compared to sand
- △ High resistance to a variety of chemicals
- △ Greater physical strength for use in industrial water purification.
- △ Prevents filtration blockage and more.
- △ Prevention of mad ball forming at the surface of the sand layer.
- Can easily transform from Single Media Filtration to Dual Media Filtration (sand)

WARNING:

For safety and handling purposes, we recommend appropriate protective measures when entering a wet vessel containing granular anthracite, because wet anthracite depletes oxygen from air and therefore, dangerously low levels of oxygen may be encountered. In such a case, the oxygen level inside the vessel shall be determined before entering and appropriate protective equipment should be worn when entering, or leave the vessel open until the oxygen level in the vessel is normal.

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