



ION - ASIA PTE. LTD

Contact No: +65 3159 1557
UEN No: 201622487K
Email: info.sg@ionsingapore.asia

Ion-Asia Pyrolusite

Ion-Asia Pyrolusite is high catalytic filtration media this is a high capacity filtration media consist of solid granules of Pyrolusite crushed in quartz sand for iron, manganese, hydrogen sulfide, arsenic and antimony removal.

It has been used in water and waste water treatment for a long time, to remove iron and manganese (Fe/Mn) etc.

Ion-Asia Pyrolusite has the ability to remove most soluble heavy metal and manganese etc, by oxidizing iron, manganese and hydrogen sulfide from source water, it also has been proved from municipality tap water supply to be good solution compliment to use for making tap water.

Ion-Asia Pyrolusite acts not only as a turbidity filter, but also as a polishing filter for any breakthrough of hydrogen sulfur, iron or manganese with the use of aeration, chlorination or other pre-treatment methods.

Ion-Asia Pyrolusite will work between a pH range of 5 to 9 pH, however, the higher the pH the higher the oxidation capabilities. A 6.5 pH or 7.0 pH is properly. A lower pH than 6.5 may require extra media for contact time. A more logical approach may be a pH neutralizing filter in front of the Ion-Asia Pyrolusite which will bring any pH up to the 6.5 to 7 ideal pH range.

No chemical regeneration is required for Ion-Asia Pyrolusite, but backwash is a must for proper operation. Attrition during backwash can be a benefit as it exposes more surface sites for oxidation of iron and manganese in water, it depends on the source water as well.

Air scour for backwashing are recommended in simultaneous mode. If water backwash alone is used, air scour prior to backwash is recommended with a water backwash designed for 75 m/hr in order to over flow the sediment out from the storage tank. Daily backwashing is recommended at the beginning to maintain the effectiveness of the media for oxidizing and removing iron and manganese and etc.

Ion-Asia Pyrolusite is a hard media with small attrition rates of 2-3% per year, Ion-Asia Pyrolusite has specific gravity about 2.9 like silica sand.

It is a mined ore consisting of 30% to 60% manganese dioxide by weight. And it is an amorphous appearing mineral and mostly granular.



Advantages of Ion-Asia Pyrolusite.

- Very high effective reduction of iron, manganese, hydrogen sulfide, arsenic and antimony.
- Durable media with long life period up to 10 years.
- Less chemical to use.
- Lower operation cost.

Physical and Technical properties

- Physical form : Granular
- Sizing : Effective 0.8,1.2,3.0 mm
- Colour : Dark brown to black
- Active Ingredient : Manganese Dioxide (MnO₂) 30-60%
- Specific Gravity : 2.9
- Manganese Removal.....up to 99%
- Service flow.....10-30 m/hr
- Backwash rate.....50-70 m/hr
- Air Scouring rate.....1-2 Bar of Air Pressure
- Expandable bed..... 30-50%
- Bed Depth.....20 inches minimum
- pH Range..... 6.5-9.0
- Mesh Size.....Support Media bed 0.7mm
- Life time.....5-10 years (Minimum 5 years)
- Attrition Rate.....2% per year (Top Up)



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Packaging

- 40 kg. in 3 layers paper bag. - 1,000 Kg. in PP Bag.

Notice

- Hydrogen peroxide cannot be used as an oxidant.

