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Corosex® is specially processed hard, bead-like magnesia, adapted for use in filters to neutralize acidity by increasing the pH value.

Corosex® and Corosex II

Corosex®

By neutralizing the free carbon dioxide in water, Corosex® can correct acidic water conditions and render it less corrosive. Corosex®, being a highly reactive magnesium oxide, is used most effectively where pH correction is substantial or high flow conditions are in use. pH correction and media consumption are affected by a number of water chemical variables. Being soluble to acidity, Corosex® will slowly dissolve and will need to be replenished periodically.

On a per weight basis, magnesium oxide can neutralize much more acidity than can calcium carbonate, (five times as much). This results in greatly reduced chemical usage for the same pH correction. **Please note, under certain low flow conditions, Corosex® may overcorrect and create a highly basic (high pH) condition.**

Under certain hardness conditions, pH correction can cause hardness minerals to precipitate out of solution, resulting in cementing or solidification of the Corosex® mineral bed. Upflow service is generally recommended with hardness exceeding five grains per gallon. (Always use an in-line filter ahead of an upflow system to prevent plugging of the lower distribution screen.)

As Corosex®'s magnesium oxide neutralizes the water, it will increase hardness and a softener may become necessary after the neutralizing filter.

Corosex® can be effectively combined with Clack Calcite to combine the high flow neutralization properties of Corosex®, along with the slower reacting low flow properties of Calcite, reducing potentially high basic properties due to overcorrection.

ADVANTAGES

- High degree of activity and speed of correction allowing high flow
- High capacity...less chemical usage

PHYSICAL PROPERTIES

Corosex®

- Color: Brownish white
- Bulk Density: 75 lbs./cu.ft.
- Mesh Size: 6 x 16
- Specific Gravity: 3.6 gm/cc
- Effective Size: 1.4 mm
- Uniformity Coefficient: 1.7
- Composition: MgO 97% min.

Corosex II

- Color: White
- Bulk Density: 100 lbs./cu. ft.
- Mesh Size: 6 x 16
- Specific Gravity: 3.4gm/cc
- Effective Size: 1.3 mm
- Uniform Coefficient: 1.5
- Composition: MgO 99% min.

CONDITIONS FOR OPERATION

- Downflow service is generally satisfactory on waters with a hardness of less than five grains/gal. or where it's combined with Calcite at least 50-50. Upflow service is generally recommended with hardness exceeding five grains/gal. to prevent "cementing of the Corosex bed"

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CorosexII

Also available is a high purity, high density magnesium oxide that overcomes some of the drawbacks of the original Corosex®. The advantage of Corosex II is that it is a slower reacting, more stable form of magnesium oxide, yet it retains the advantages of substantial corrections to low pH waters and reduced chemical usage..

- Use distributors designed for upflow applications
- A gravel support bed is recommended
- Water pH range: 4.5-6.0
- Bed depth: 24-30 in.
- Freeboard: 50% of bed depth (min.)
- Backwash frequently to prevent possible cementing
- Backwash rate: 10-12 gpm/sq.ft.
- Service flow rate: 5-6 gpm/sq.ft. but may be modified to adapt to local conditions

