product data

Fluorograde AA400G

Description of the Product

AA-400G Fluorograde is a granular activated alumina designed for removal of fluoride from water. It is available in several sizes although tests have shown the 14 x 28 mesh size to be most suitable. Conditioning of the material with dilute aluminum sulfate prior to use greatly enhances performance.

Background

Fluoride containing effluents which are treated with lime still contain about 8 ppm of fluoride. This level is not acceptable to most pollution boards and further treatment is required. Moreover some natural waters contain too much fluoride for drinking purposes and also many people wish to remove the municipality-added fluoride from their water. Activated alumina is known to adsorb fluoride efficiently at these low levels and Alcan Chemicals is offering a superior product with good adsorption capacity and long life.

Advantages

Easy to Condition: the adsorbent needs only to be contacted for
1 h with 29 g/L aluminum sulfate ($AL_2(SO_4)_3 \cdot 18H_2O$) solution and is ready for use.

Easy to Use: the feed solution is simply pumped through the bed, to yield an effluent containing less than 1 ppm fluoride.

Highly Adsorbent: AA-400G Fluorograde is able to adsorb as much as 1.4 g fluoride per 100 g alumina. For example, a 10 kg unit will keep a stream containing 8 ppm F with 120L/h flow rate virtually free of F for 6 days without risking fluoride break-through.

Easy to Regenerate: Once saturated, the alumina bed can be regenerated by following three simple steps:

- Neutralization with 1% NaOH
- Rinse with H_2O
- Reactivation with 0.05 N H_2SO_4

Economical: Because of its high adsorption capacity, a unit will be operative for a longer time before change out. This means savings on handling costs too.

Availability

Packaging in bulk railcar or truck, steel/fibre drums and one tonne super bag.

AA-400G Fluorograde Properties

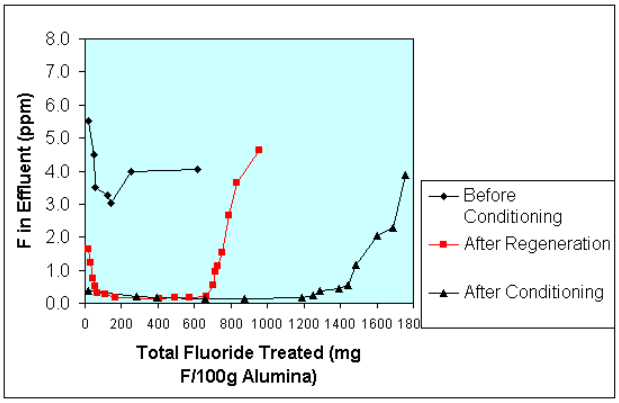
TYPICAL CHEMICAL ANALYSIS

Constituents	Weight %
Soda as Na_2O	0.4
Iron as Fe_2O_3	0.015
Silicon as SiO_2	0.02
Titanium as TiO_2	0.002
Loss on Ignition	5.5 – 6.0

TYPICAL PHYSICAL PROPERTIES

Bulk Density (g/cm^3)	0.67
Specific Surface Area (m^2/g)	350-380
Pore Volume (cm^3/g)	0.44
Static water adsorption (%)[1]	19 - 22

Note: 1. At 60% relative humidity and 20°C



Typical Performance of AA-400G Fluorograde

Distributed By:

Doulton USA
19541 Cherry Hill Rd
Southfield, MI 48076
USA
Tel: 248-258-5500 toll free in USA; 888-664-3336 www.doultonusa.com
Fax: 248-258-6977

ALCAN
imagination materialized