



# Aluminum Oxide Fluoride Removal PRODUCT DATA SHEET

**Type:** Processed Zeolite  
**Form Supplied:** Tough Uniform Granules  
**Chemical Class:** Crystalline Aluminum Oxide  
**CAS-no:** 1333-84-2

## Typical Properties

Description	Value
Chemical Structure	Crystalline Aluminum Oxide
Physical Form	Tough Uniform Granules
Screen Size Distribution	
+10 Mesh	10%
-28 Mesh	5%
pH Range	4 – 10
Water Retention	Less than 5%
Solubility	Nil
Shipping Weight	47 lbs/ft <sup>3</sup>

## Suggested Operating Conditions

Description	Value
Maximum Temperature	100° C (212° F)
Maximum Free Chlorine	1 ppm
Minimum Bed Depth	36" (5 to 7 ft Preferred)
Backwash Rate	To achieve 10% to 25% Bed Expansion
Service Flow Rate	1 to 2 gpm/ft <sup>3</sup>

## FLUORIDE REMOVAL

Fluoride is removed by a chemical reaction with the media. The process is flow and pH sensitive. The best results are obtained when the flow is limited to about 1 gpm/ft<sup>3</sup> and the pH is held at 5.5. Higher flows and higher or lower pH causes a significant loss of capacity. The best capacity obtainable is approximately 0.2 lbs. per cu. ft. Leakage of fluoride is generally less than 0.1 mg/l to breakthrough.

- Synthetic aluminum oxide that is specifically processed to have a minimum of fines and other foreign matter.
- Removes metals through a combination of adsorption and chemical reaction with the media, thus the removal is not dependent on ion exchange.
- Has a uniform particle size similar to ion exchange resins. It has minimal shrinkage or swelling and low pressure loss. It is physically stable and can be used over a wide pH range.