



filter  
media

# GoSorp<sup>®</sup> F

## Removal of Fluoride:

High performance adsorbant for drinking water.

### The problem

Worldwide, people in many regions are struggling with high concentration of fluoride in ground and surface water released from the soil as geogenic contamination. The affected regions are in South America, in North-East Africa and in South-East Asia.

Due to high proportions of fluorine containing rocks, the dissolved concentration in groundwater and surface water is far above WHO recommendations for safe drinking water. Consumption of water with high fluoride concentration for a long term leads to serious damage to health by dental and skeletal fluorosis.

### The solution

**GoSorp<sup>®</sup> F** is a highly efficient adsorbent material which remove fluoride from water selectively but sustains the natural content of minerals and trace elements. It was developed to supply people with clean, safe and affordable drinking water.

**GoSorp<sup>®</sup> F** is a white, pure apatite granulate which is synthesized from high quality raw materials. It's extremely high adsorption capacity of up to 10 gF/kg **GoSorp<sup>®</sup> F** enables compact filter systems to treat the polluted water. After saturation of the granular, **GoSorp<sup>®</sup> F** can be regenerated and reused in the same application, whereby waste can be avoided, and costs saved.



GoSorp<sup>®</sup> F





## Applications

- **GoSorp® F for public water supply**

Defluoridation filter systems for flow rates according to clients' specification including integrated and automatic back-wash and regeneration of **GoSorp® F** filters.

- **Decentralized water kiosks**

Water filters for communities, hospitals, schools and other institutions operated with electrical power from the grid or from solar panels. **GoSorp® F** filter granular is changed and regenerated using a deposit system.

- **Household filters**

Small cartridge filters or bucket systems for individual households. One unit produces up to 18,000 liters of clean defluoridated water.

## Specifications

### Chemical composition

$\text{Ca}_5(\text{PO}_4)_3\text{OH}$  Hydroxyapatite > 95 %

### Physical constants

- Apparent weight: 500 – 750 kg / m<sup>3</sup>
- Particle size: > 90 % 0,5 – 2 mm
- Filter flow rate: 3 – 6 m / h
- Residence time: 10 – 20 min

### Regeneration

- Desorption of fluoride using NaOH solution  
Neutralisation (e. g. using gaseous CO<sub>2</sub>)

**We gladly advise  
you individually!**

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