

# TRAMFLOC, INC.

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## Technical Information Bulletin

### TRAMFLOC® P-188 ACTIVATED ALUMINA

#### Description

P-188 adsorbent is a spherical specialty alumina adsorbent with high capacity and selectivity for fluoride removal. Features and benefits include:

- Optimized pore size distribution leading to higher capacity.
- High degree of macro-porosity for rapid adsorption and short mass transfer zone.
- High surface area substrate to extend bed life.
- Customized active metal oxide for an ultra-low level impurity removal.
- Available in either steel drums or quick load 2000 lb. bags.

#### Application

P-188 non-regenerative adsorbent is a high-capacity adsorbent for defluorination of butane, propane and alkylate streams produced in the HF Alkylation Process. It has demonstrated 30 percent to 40 percent more capacity than standard defluorination activated alumina in side-by-side comparisons. P-188 activated alumina ensures maximum fluoride loading per unit volume of adsorbent resulting in very high conversions of  $AlF_3$ . P-188 adsorbent is also less prone to hydrocarbon coking, resulting in longer life cycle and fewer recharges. Safe loading and unloading of the adsorbent from your equipment are imperative to ensure you realize the full potential of P-188 adsorbent. For proper safety and handling, please contact your Tramfloc, Inc. representative.

#### Typical physical properties (nominal)

	<b>7X12 Beads</b>	<b>5X8 Beads</b>
Bulk density (lb/ft <sup>3</sup> )	47	47
(kg/m <sup>3</sup> )	753	753
Crush Strength* (lb)	12	20
Crush Strength* (kg)	5.5	9.1
Approx. Size	2.4 mm X 1.2 mm	1.4 mm X 0.5 mm

\* Crush strength varies with the sphere diameter. The crush strength is based on an 8 mesh sphere.

#### Uses

P-118 Activated Alumina is used in the treatment of both potable and wastewater as a scavenger of free fluoride. Other uses include chemical processing, as a filtration medium, as a desiccant for liquids and gases, and a scavenger of both organic and free fluoride in an alkylate stream. P-118 can also serve as arsenic removal media, although there are other grades of Tramfloc Activated Alumina which may be more suitable. Please consult Tramfloc for arsenic removal information.

#### Chemical Analysis (Dry Basis)

	<u>Typical</u>
SiO <sub>2</sub>	0.02 wt-%
Fe <sub>2</sub> O <sub>3</sub>	0.02 wt-%
TiO <sub>2</sub>	0.002 wt-%
Na <sub>2</sub> O	0.35 wt-%
Al <sub>2</sub> O <sub>3</sub>	93.6 wt-%
Loss on ignition	6.0 wt-%

#### Technical service

We have the products, expertise and processes that our refining, petrochemical and gas processing customers need for total solutions. From start to finish, our global sales, service and support staff are there to help ensure your process challenges are met with proven technology. Our extensive service offerings, coupled with our unmatched technical knowledge and experience, can help you focus on profitability.

Protect your valuable assets from corrosive attack, reduce downtime due to change outs and address environmental concerns by efficiently removing fluoride from process streams.

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