

African Pegmatite (Pty) Ltd
27 Van Der Bijl Street,
PO Box 598, Meyerton 1960
Gauteng, South Africa
Email: wenger@pegmatite.co.za
reception@pegmatite.co.za
Website: www.mineralmilling.com

Tel: +27 016 362 0600/1/2/3/4
Int: +27 16 362 0600
Fax: 016 362 1239

MILLERS & PROCESSORS OF BASE MINERALS

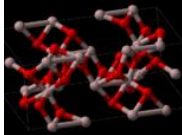


Approved By:
Compiled By: J Sowerby

Doc No. : DSA 001
Rev No. : 04

Date: 29 June 2007
Page 1 of 1

Data Sheet



Product : Activated Alumina
Grades : 0.8 – 3.0mm
-5 +3mm

CHEMICAL ANALYSIS %

	98% Calcined Alumina granules	
Typical:	Absorption Capacity:	10 mgs/litre – 1mgs/litre
	Contact time:	20 – 180 seconds. Depending on Fluoride levels
	Flow rate:	250 liters/min – 15 000 liters per sq. meter per hour

PROPERTIES:

0.8 – 3mm	MoH Hardness: 8
Dry Bulk Density: 1.7 1700kgs/cube	Bed Depth: 800mm recommended minimum
Regeneration:	
1) Acidification – Alumina HOH + 3.5% HCL → Alumina HCL + HOH Acidic alumina is formed.	
2) Ion Exchange – Alumina HCL + NAF → Alumina HF + NACL. Fluoride ions displace chloride ions under acidic conditions.	
3) Regeneration – Alumina is saturated with a dilute solution 3 – 5% sodium Hydroxide (caustic soda) alumina. HF + 2 NaOH → alumina NaOH + NAF + H ₂ O	
4) Repeat Acidification – To restore fluoride removal capacity is immersed with dilute HCL. Alumina NaOH + 2HCL → Alumina HCL + NACL + HOH. As per step 1 and is ready for another fluoride absorption cycle.	
Note: Sulphuric acid can also be used.	
Regeneration minimum 30 minutes each	
Backwash plain water 20 minutes every 10 weeks depending on fluoride contamination	
Removal 0.35gms F per kg activated alumina	

APPLICATION:

Extraction of Fluorides from borehole, stream and mine waters

PACKING:

Packed in 40kg bags or 1000kg bulk bags

The information and recommendations in this product data sheet are based on data we believe to be reliable. They are offered in good faith, but do not imply any warranty or performance guarantee, as conditions and methods of use of our products are beyond our control. As such, African Pegmatite, South Africa makes no express or implied warranties of any kind with respect to this product, including but not limited to any implied warranty of merchantability or fitness for a particular purpose.

We recommend that the user determine whether the products and the information given are appropriate, and that the suitability and performance of our products are appropriate by testing with its own equipment. Specifications are subject to change without notice.

The information and recommendations given in this product data sheet should not be understood as a recommendation for the use of our products in violation of any patent or as a license to use any patents of the African Pegmatite Company, South Africa.

Tel: +27 16 362-0600/4 Fax: +27 16 362-1239 Website: www.mineralmilling.com

