Majuba power station

Owned, financed, and operated by Eskom - Powering most of South Africa. Majuba was brought on line in 1996, one of the most advanced coal-fired plants in the world. That means a unique and high-quality fly ash…for all your supplemental cementious materials needs.

Facts about Majuba Power Station:

- Majuba is the latest of Eskom's "6 pack" power plants
- Majuba is Eskom's second largest power plant with an installed capacity of 4 110MW
- Units 1-3 capacity: 657 MW per unit (612 MW sent out)
- Units 4-6 capacity: 712 MW per unit (669 MW sent out)
- Majuba has no dedicated mine and currently purchases coal through short/medium term supply contracts (15 suppliers)
- Majuba has 2 shifting capabilities

What makes Majuba Power Station unique?

- Different sources of coal
- Only Eskom plant operating a train tippler plant
- Coal delivered per month by rail 0.42 MT, by road 0.74 MT, approximately 700 trucks per day
- Majuba utilizes two different cooling technologies: Indirect dry cooling and Wet cooling
- Only coal fired power station in the country that has predominantly 2-shifted
- Only station in RSA that has axial FD and ID fans

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MILL REPORT

ASTM C618/AASHTO M295 Testing of Fly Ash

Received:

Source: MAJUBA Power Station

Location: Mpumalanga, South Africa

Sample ID: MAB02

Sample Type: Monthly

Month Issued: August 2025

Chemical Analysis	Results	ASTM Limits Class F/C	ASSHTO Limits Class F/C
Silicon Dioxide (SiO_2)	54.2%		
Iron Oxide (Fe_2O_3)	5.3%		
Sum ($SiO_2+Al_2O_3+Fe_2O_3$)	87.8%	50.0 min	50.0 min
Sulfur Trioxide (SO_3)	1.2%	5.0 max	5.0 max
Calcium Oxide (CaO)	6.0%	18.0 max	18.0 max
Magnesium Oxide (MgO)	1.7%		
Sodium Oxide (Na_2O)	0.8%		
Potassium Oxide (K_2O)	0.9%		
Total Alkali (Sodium Oxide Equivalent)	1.6%		
Moisture		3.0 max	3.0 max
Loss on Igniton	0.4%	6.0 max	5.0 max
Physical Analysis			
Fineness, % retained on a No. 325 sieve	32.6	34 max	34 max
Fineness, % retained on a No. 150 sieve	5.8	10 max	10 max
Strength Actvity Index – 7 and 28 day requirement*			
7 day, % of control	86.4%	75 min	75 min
28 day, % of control	112%	75 min	75 min
Water Requirement, % control		105 max	105 max
Density			

The test data listed herein was generated by applicable ASTM methods. The reported results pertain only to the sample(s) or lot(s) tested.

*7 & 28 day strengths were at one-to-one, 20% cement replacement; Southern California materials.

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Report Updated: 20/10/2025