

Moisture Content in Bauxite

MoistTech Instant NIR Online Moisture Sensors

Bauxite is the main component of aluminum and is often used in a variety of manufacturing processes. As mined Bauxite moisture will range from 7 to 10%, moisture measurement is essential for efficient dryer control.

Normally upon exiting the dryer, the blended bauxite is conveyed delivering thousands of tons per hour for transport. Ideally the moisture level should be 8%, within +/- 1% to maintain acceptable and cost-effective shipping requirements. Too low of moisture will cause the bauxite to be dry and can be carried away in wind; too high of moisture increases shipping costs due to excess water.



Old methods include occasional sampling which cause lag in production times and inaccurate testing results. MoistTech's CCS3000 sensor will monitor the moisture levels closely and guarantee a more profitable conveyor system, by improving the quality of the products produced, reducing waste and effectively managing shipping costs.

The MoistTech bauxite moisture testing sensor should be mounted several inches above the conveyor. The space will ensure the moisture in the bauxite creation process is monitored from start to finish. The sensor can adjust both manually or automatically. Although the bauxite and excess particles won't create permanent damage, dust in the production environment may cause build up on the sensor's window. We recommend installing the air purge system to prevent any problems.

We understand the requirements needed to successfully produce bauxite and pre-set our bauxite moisture testing calibrations, measurement wavelengths, sensor optical requirements and algorithms at the factory. Accuracy is typically about $\pm 0.1\%$ moisture. Typical analog range is 5–15% moisture. The outputs can be adjusted to optimize PLC or recording requirements.

MoistTech technology is based on Near-Infrared (NIR) technology for instant, accurate, repeatable online or offline measurements of moisture. These sensors are made for non-contact, non-destructive measurements of the greatest accuracy. Use an NIR sensor in the lab or on the factory floor or take it into the field for fast, accurate results every time.

Contact us today for more information on Bauxite applications at 941-727-1800 or info@moisttech.com