



Moisture Measurement in Biomass

Many biomass materials are produced as byproducts, residues or wastes from some other process, operation or industry. Most of these have a valuable energy content that can usefully be channeled into fuel including wood, food waste, agricultural residues, industrial waste and co-products.

MoistTech utilizes near-infrared (NIR) technology that allows for a non-contact solution to provide accurate moisture content readings. Insensitive to material variations such as particle size, material height & color, the sensors provide a continuous, reliable reading with zero drift and no maintenance. There is a one-time calibration with a non-drift optical design allowing operational personnel to make immediate line adjustments based on real-time measurements.

Moisture measurement and control in biomass applications is a critical portion of the production process. It has been estimated that an increase in the moisture content in some forms of biomass can decrease the heating value by up to 70%. MoistTech engineers are very experienced in the biomass industry and can optimize your process control and help implement lean manufacturing practices.

INSTALL

The on-line sensors can be installed into any hopper, silo, material line, belt or screw conveyor and the moisture results are displayed onto an external display or PC.

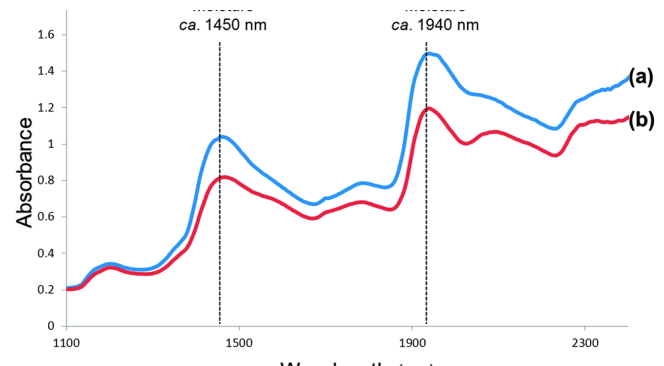
The moisture content is a critical parameter for biomass as its vital to correct operation of the boiler. Most fuel boilers are designed to operate with a limited moisture range. Feeding fuel outside the tolerated range leads to increased emissions.

Installing a moisture measurement and control system prevents bad product due to undesirable moisture levels. Fine tuning the setup and process of the manufacturing line allows for instant improvements both in the product and in the efficiency in which it is produced.

IMMEDIATE BENEFITS:

- Improved Product Quality
- Lower Waste & Energy Costs
- Process Optimization
- Increased Plant Efficiency
- Dryer Control
- Reduced Downtime

An ideal moisture control system accurately detects the moisture levels at different stages of the process, is easily maintained and has the ability to withstand even the harshest of manufacturing conditions. The IR-3000 series of sensors manufactured by MoistTech are specifically designed to be unaffected by ambient light or material variations to be able to provide continuous, repeatable, accurate readings to improve the manufacturing line and product.



“The addition of the MoistTech IR3000 has provided me with the ability to control our process by instantly increasing or decreasing material flow into the dryer. Prior to the MoistTech technology proved to be a guessing game and time consuming!”