Moisture Measurement in Medium Density Fiberboard (MDF)

Moisture content in MDF determines the overall strength and durability of the board and surface appearance/quality is governed by moisture distribution.

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 control can save on fuel costs due to the intricate process of MDF manufacturing. Some forms of incoming wood are debarked, chipped and screened prior to being washed and entering the digester. Resin, wax and in some cases urea water is added to the fibers which is then flash dried while being conveyed into a fiber bin before being laid onto a mat and sent to the forming pre-press. Typically moisture measurement is seen on the incoming green wood chips, on the refined fiber and on the pre formed mat.

INSTALL

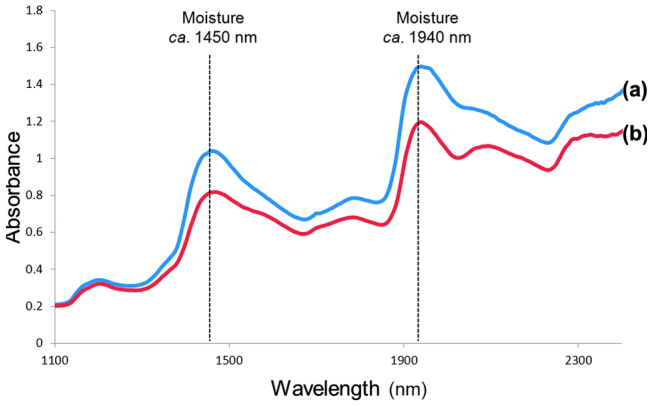
Install can differ depending on the process; the gauge is mountable over a conveyor, over or side of the mat, looking into a fiber bin or the under-side of a gravity chute through a viewing window. Its is advisable to hook the air purge window up to a compressed air line, in order to prevent resin and dust from settling on the viewing window.

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!"