

PB-Particleboard

Moisture measurement & control Resin measurement

Having the correct moisture levels in particleboard process has become a critical component during the various stages of production. Moisture control of both infeed and outfeed will result in better resin addition, reduced energy usage and a high quality material prior to blending. Fiber quality can be influenced by moisture content and incorrect moisture resin addition can not only waste money but can cause dramatic process interruptions. Precise control of raw material fiber will not only improve the resin addition but also provide an extra benefit of high quality board properties. The resin moisture addition will result significant cost savings. The major benefit will be on the forming line when the press will not have any down time due to blown boards, a common result of high moisture content furnish. With the help of industry partners and 30 years of knowledge and experience, MoistTech has developed the *IR 3000* Moisture Sensor that is ideally suited to measure the moisture levels in the particleboard process.

Installation....

By mounting the sensor several inches above the conveyor will allow the user to continuously monitor the process and can control the moisture/resin content either manually or automatically in the PB process. The unique feature of the IR 3000 is that is able to monitor the process even with small gaps in product flow without impacting the accuracy. MoistTech has also developed sample systems and optical windows using sapphire optics which will provide a viewing area for real time process measurement. Details of this can be seen on our section in sampling technology.

Environment....

Dust from the product is not normally a problem however in extreme dusty environments we recommend the installation of an air purge system to prevent the accumulation of material on the sensor's window. If the sensor has to be installed close to dryer outlet where it will be susceptible to extreme heat conditions, it may be necessary to cool the sensor with either air or water.

Benefits....

- improved product quality
- lower energy costs
- less waste
- 100% product inspection
- less downtime
- significant resin cost savings
- precise blending control
- dryer control

MoistTech is very experienced with the moisture sensing requirements in the particleboard process. Our sensor calibrations, measurement wavelengths, algorithms and sensor optical requirements are pre-set at the factory. Typical accuracy is about $\pm 0.1\%$ moisture. Typical

analog range is 0-20% moisture. The outputs can be adjusted to optimize PLC or recording requirements. For addition information or to discuss your application, please contact our headquarters.

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