



Moisture Measurement in Molding Starch

Confectionary items such as jelly bean centers, candy corn, marshmallows, starch gums, caramels, nougat, gummies and cream centers may be manufactured using starch molding techniques. At several stages of the manufacturing process these products are cured, dried, aged and conditioned, making moisture essential.

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.

Confectionary manufacturers are interested in reducing holding times to improve productivity and reduce work-in-progress. The rate at which starch is absorbs moisture is comparatively slow and the dynamic relationship of the product, the rate determines productivity of the process. Unlike most foods, water is a minor constituent of confectionary - but one that has a major impact.

For most starch molded confections, the moisture content of the starch should be in the range of 5.5-7%. Although it can be slightly lower, starch tends to lose some of its ability to hold the shape of the most if it becomes too dry and crumbly.

INSTALL

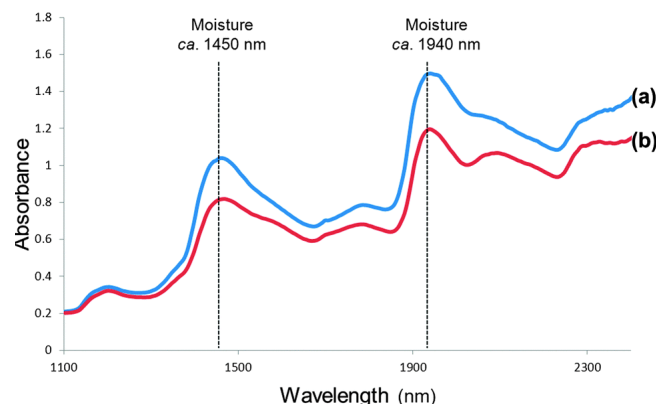
The on-line sensors can be installed into any hopper, silo, material line, belt or screw conveyor and the moisture results are displayed onto an external display or PC.

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!”