

The background features a dark blue gradient with a pattern of water droplets. Overlaid on this are several semi-transparent financial charts, including a candlestick chart and a line graph with a dashed trend line. A large, stylized 'Y' logo is visible in the upper left quadrant. The text is centered in the lower half of the image.

Delivering In-Line Monitoring and Data Analysis of Moisture Distribution on Products Before Packaging

 **YORAN**
IMAGING
QUALITY. DATA. EFFICIENCY.

In-Line Monitoring of moisture distribution on products before packaging

Based on decades of expertise in thermal imaging inspection, Yoran Imaging delivers an innovative, in-line solution for the detection of pre-packaged product moisture distribution.

Proven technology

Based on Yoran Imaging's award-winning thermal imaging technology and decades of inspection expertise.

Seamless integration

All monitoring is done inline, without direct contact and without interfering with the line speed.

Scientific inspection

The system instantly converts a thermal image into moisture content level (%).

Ongoing consistency

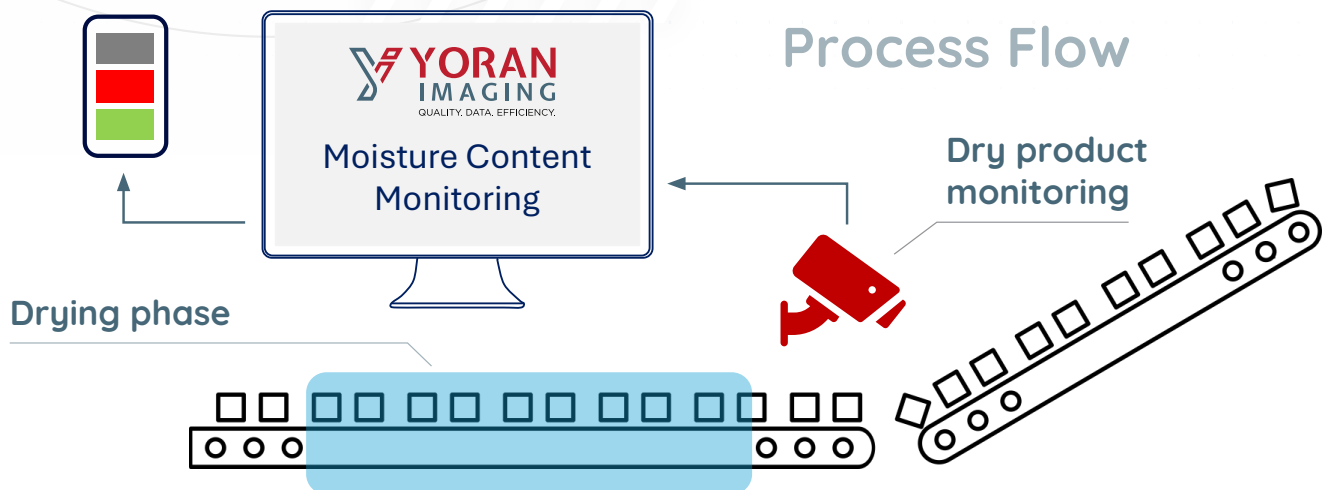
The process is continuously monitored to help ensure maintenance within pre-defined moisture parameters.

Deep data

Automatic generation of digital data for analysis and documentation of the process.

Instant alerts

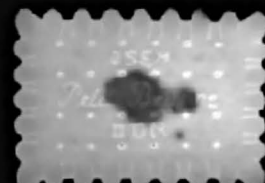
As soon as the system detects a trend in moisture content, it alerts the operator.



Sample 2D scan of a biscuit



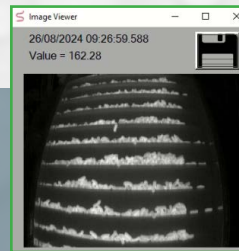
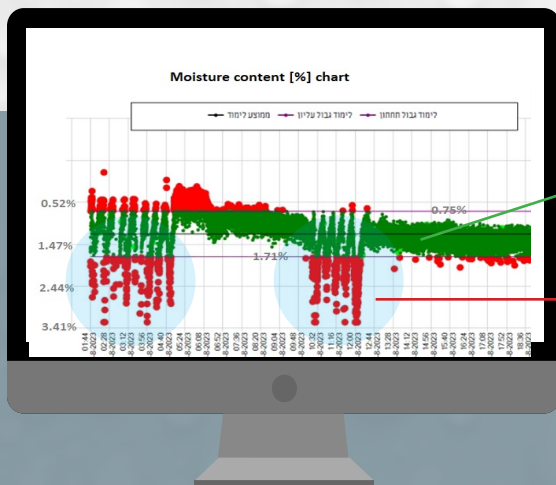
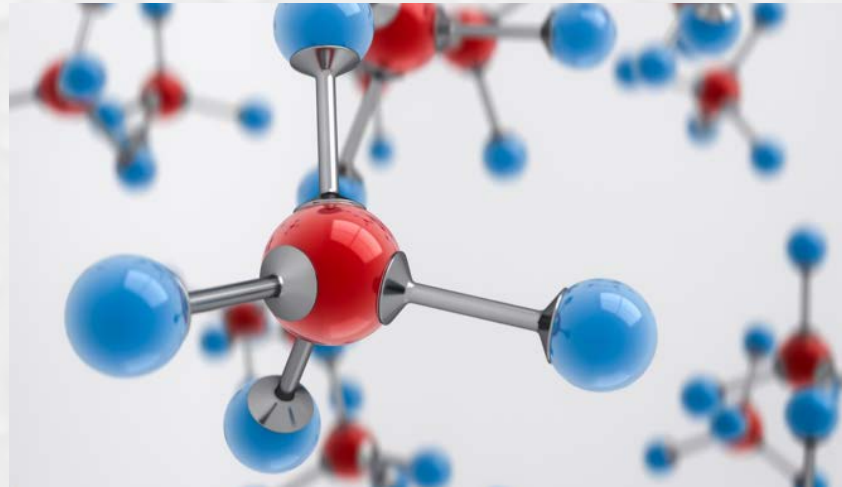
Sample 3D scan of a biscuit, showing package moisture



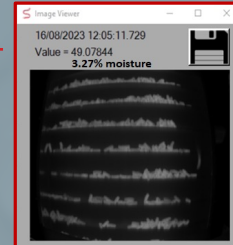
H₂O molecules absorb IR energy

The thermal image of “dry” material is higher compared to “moist” material due to IR absorption effect.

The absorption effect is caused by vibration modes of the H₂O molecules.



High moisture content



The system sensitivity is

0.05%

difference in
moisture content

The system shows a high correlation between the thermal image and the measured moisture content.

It is so sensitive it can detect a 0.05% deviation in moisture, allowing for alerts in real-time.

Benefits vs. Traditional Inline NIR (Near Infra-Red) Spectroscopy:

- Thermal imaging sees the entire picture while spectroscopy focuses on a small region
- Thermal imaging can see process failures due to underheat/overheat of the product during the drying phase.
- Thermal imaging can see structure, size, distribution of the products and the distribution of the moisture.
- Thermal imaging doesn't need illumination vs. the illuminating light needed in spectroscopy.
- Thermal imaging is intuitive vs. the non-intuitive analytical results of spectroscopy.

Delivering Process Efficiency Across A Wide Spectrum of Industries



Food & Beverage



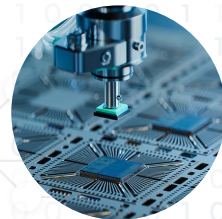
Cosmetics



Pharmaceutical
& Medical Device



Consumer Goods



Electronic
Components

Drawing upon more than two decades of experience in thermal imaging inspection, Yoran Imaging's solutions provide non-invasive, 100% in-line inspection combined with data collection and analysis. This powerful combination allows for real-time visibility of line performance and precise optimization of the overall production process.

Our patented and award-winning solutions help leading companies around the world to optimize their production processes and safeguard their brand reputation. The company's thermal imaging inspection systems deliver enhanced peace of mind by replacing outdated, manual inspection procedures with highly automated and extremely precise data-driven technologies.



Discover how this award-winning technology can deliver instant ROI for your operations.



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