

Best Practice

Inline Moisture Measurement of Roasted Coffee

Green coffee beans are having a typical moisture level of 11 – 12%. During the roasting of the coffee beans in a drum roaster a high temperature of ~ 230 °C will be applied. The well-known Maillard reaction will take place and the coffee develops its typical aroma. At the same time the moisture is significantly reduced. To assure that a pre-specified moisture level which might be a limit set by law (in Germany e.g. 5%) will not be exceeded the roasted coffee is measured right after the cooling stage using a process measurement system.

Inline Moisture Measurement of Soybeans

The harvest campaign of soybeans is 2 – 3 months/year whereas the processing takes place all year round. Therefore, the soybeans need to be stored in huge silos to enable a continuous production process. Coming fresh from the field the moisture level of soybeans is likely too high and therefore they need to be dried in large dryers before storage. In addition, it is a known fact that at a moisture level of 12% the soybeans will deliver the most oil during pressing. The TEWS microwave measurement is the optimum solution to make sure that the soybeans are dried to the setpoint for storing and to avoid over drying to be in best possible condition for the next processing step.

Areas of Application

Cereals

Cocoa Beans & Nibs

Dried Herbs

Fruit & Spices

Gelatin

Green & Roasted Coffee

Hop Umbles

Marzipan

Nuts

Oil Seeds

Pasta & Instant Noodles

Snacks

Soft Candy

Wafer & Crisp Bread

Advantages of Microwave



Moisture and density measurement



Measurement of core and surface moisture



Simple and longterm stable calibration



Independent of dust or dirt



Helps to reduce CO₂ footprint



Short ROI



ATEX protection possible



Industry 4.0 ready



Online-Cloud-Based support



Worldwide Service

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TEWS
MEASURABLY BETTER



**Food Industry
As a Partner.**

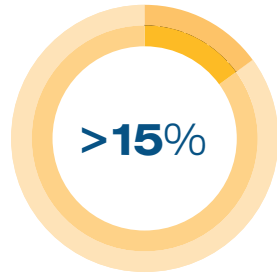
HIGH PERFORMANCE SOLUTIONS



Your production process combined with our patented solutions. The result: the most accurate data about the moisture & density of your products.

Facts and Figures

Energy



savings – due to improved dryer control

Time



faster – in the lab due to readings within milliseconds

Quality



control – of finished products like soup cubes

TEWS Measures Moisture and Density Independently

Traditional 1 - parameter - measurement

0,12%
unknown layers

0,24%
unknown layers

0,36%
unknown layers



3 different layers of the same material with a typical 1 Parameter Method: Each layer increases the moisture → **misleading results**

TEWS - 2 - parameter measurement

5%
1 layer

5%
2 layers

5%
3 layers



3 layers of same material show the same moisture, the density is recognized and moisture result compensated → **correct results**

About TEWS

TEWS was founded in Hamburg, Germany back in 1970. Today, the company is owned and managed by André Tews in the 2nd generation of leadership. As the market leader in high performance moisture and density measurement solutions, TEWS is at the center of today's business for almost 50 years, now.

TEWS helps you streamline your processes, giving you the ability to collect and use data by applying a unique patented microwave technique across your production business. When you run TEWS high performance solutions, you run measurably better.

Let's look at your production structure together. And in a new, agile way we exchange, attach, discuss, omit or add knowledge. From this we develop new opportunities together. Bringing them into life brings your business forward at the same time. We call this Co-Improving.

