

## Thinking outside the box is decisive

*Patented measurement solutions for complete picture of produced materials*



The manufactures' declared aim is not only to enhance the plant's pace considerably but also to secure the continuous quality of the products. It is crucial to reduce the material waste to a minimum and to keep the production efficiency on a maximum level. Automated quality control and regulation plays a vital part in this context and contributes significantly to achieving the set goals. Eva Knorr, CEO of MeSys GmbH with its headquarters in Greifenberg, Bavaria, explains what possibilities there are currently, which technical features need to be considered by manufacturers and in which way the trend is moving in the next couple of years.

**What importance do the measurement systems have by now for the produc-**

**tion of flat products and what risks exist?**

Eva Knorr: It is not possible to determine continuous effects that change with the measurement's frequency with a standardized measurement system. Not only does it result in a wrong tread; it effects blatantly the automated regulation in the production. The result is a product of poor quality.

**How do the solutions need to be, in order to have a trendsetting nature and with what characteristics do they score?**

Our Team of the MeSys GmbH is focused on patented, non-radiometric system solutions for continuous up to completely gapless quality control – and the demand

proves us right. We offer measurement systems that allow for efficient production processes and fulfill even the users' highest requirements by means of our online measurement and control system for coating lines. This is a combination of our conventional traversing measurement system and a sensor arrangement in fixed positions – leaving the number of sensors through the scanner's length depending on the requirement up to choose.

**What advantages are precisely given in application?**

Using said system allows our customers a 100% recording possibility of the basis weight and in this way a complete picture of produced materials. The higher the number of sensors, the higher the resolution of the picture. In conclusion, a correct coating is given and in sum a high-quality product. I consider this – let's say optimized quality management – as the absolute competitive advantage.

**Let's get into the coating and surface enhancement processes, for which a high production quality is decisive. Which measurement systems are appropriate in this matter?**

Our patented ultrasonic sensor USMX 200-500/MCT NIR systems are predestined for this, since they offer a precise, safe as well as clean inspection of weight

and/or of moisture. Parallel to that stands our ultrasonic sensor USMX200-500 in the Array version, with which we are the first manufacturers that provide an inline weight regulation with 100% product coverage. With this product, we became market leaders in the field of in-line and off-line weight and thickness measurement of anodes and cathodes development of lithium-ion-batteries.

**What about extrusion coating of flexible packaging – what challenges occur here and how do you manage them?**

For these production processes are exact moisture control of the raw materials, the polymer laminate's thickness as well as the coating of metalized surfaces factors that need to be controlled, imperative. A high-quality product is only ensured in this way. We developed a series of non-contact sensor technologies that allow for a complete control of the production process of laminated and coated products, in order for our customers to achieve this aim.

**When you look at the market in the upcoming 5 years, what forecast do you foresee and which key trends are apparent in your opinion?**

The desire for alternative measurement methods and with it needed measurement solutions is going to grow. Specifically, we

see the trend in developing different optical systems. We are already working on developing solutions for materials and the respective production situations of tomorrow. And with that I also mean not only to provide the stationary applicable devices but also to offer more flexibility to the manufacturers for quality control and regulation. We need to examine our customers' requirements in general more carefully. Topics such as space play an important role. In this context, for example we developed a patented scanner that holds the same sensors as a bigger measurement system of ours, but is with its compact design predestined for environments that hold little space and that are still in need of high measurement precision in the fields on thickness and weight.