

// Application report BST ProControl: Thickness measurement at CaPlast Kunststoffverarbeitungs GmbH



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SENSOR DUO RELIABLY MEASURES BROAD PRODUCT PORTFOLIO FOR COATING EXPERTS

CaPlast Kunststoffverarbeitungs GmbH specialises in high-quality coating of a huge range of substrates. The product range of the company, which was founded in 1967, spans products for industries such as automotive manufacture, the construction industry and garden and landscape architecture. Alongside its site in Nordkirchen, where 110 employees are based, CaPlast has also had a subsidiary in Turkey, which deals exclusively with sales activities, since 2012.

When it comes to coating substrates such as liners, felt, paper, aluminium and films, the coating specialist puts great value on products being free from solvents and plasticisers, along with cutting-edge finishing options and environmentally-friendly production procedures. Here, the coating materials such as TPE and TPU are used in line with the application and requirements of the customer. In addition, customers can choose between various technical possibilities such as one- and two-sided coating, printing and embossing.

According to requirements, the coating can also have a positive impact on resistance to UV and weathering, as well as consistency and fire protection. In order to be able to offer the utmost quality in all products, the company relies on the measuring specialists at BST ProControl.

Measuring systems suit a broad product portfolio

CaPlast offers its customers a product range spanning 1000 items, which are manufactured according to customers' individual requirements. These include coating of substrates for its in-house product series in the areas of construction and automotive. For the automotive industry, the company coats liner materials that offer complete protection during transport of vehicles on trains or trucks. The bodywork is thus not only protected from water, but the sensitive varnish is also shielded from stone chips and other blemishes. For the construction industry, the company likewise produces liners that are used, for example, as vapour retarder film and ensure that no condensation builds up within the building insulation. In order for all production requirements to be fulfilled and the broad product portfolio to be covered, CaPlast works with four coating systems of various widths. „*The requirement profile of every product is individual, with quality uppermost for us at all times*“, explains Michael Göbeler, who has been working as a technical director at CaPlast Kunststoffverarbeitungs GmbH for four years.

It is for this reason that those responsible decided some time ago to exchange one of the existing systems for the new 3500 coating system. The old model including the measuring sensor had aged, no further maintenance was being carried out and the procurement of replacement parts proved difficult. On a recommendation, the company consulted BST ProControl and decided to work with the measuring specialists.

„We run our entire product portfolio on all coating systems and apply coatings spanning a range from 20 g/m² to 1000 g/m². Such criteria demand a measuring system that covers a broad spectrum and at the same time is suitable for all substrates. It is precisely these requirements that the BST ProControl meets.





In the course of this optimal cooperation, we decided on two further systems for the measuring solution from Wenden”, Göbeler continues.

The second system BSA 1800 was equipped with the sensor solution last year. The retrofit of the third system, which boasts a breadth of 3200 mm, is being completed over the summer.

„We implemented the measuring system on the second system with our own technical department. The activation and the training was carried out by service technicians from our supplier. The training in situ was particularly important, for example when it came to getting acquainted with setting the correction widths. The installation of the measuring solution proved to be relatively straightforward, and since we had the support of BST ProControl for the activation, we will do the same again with the third system”, says the technical director, adding that the employees switch between the individual systems and that it is therefore very advantageous that they will soon be using a uniform system.

Practical operation has also proven to be quite straightforward and the experience of CaPlast shows that since the technical harmonisation there have only be minor operational errors on the part of the employees.

Only one measuring system is suitable

On the production line, two measurements are respectively used to identify the thickness of the coating. The first sensor identifies the surface weight of the raw material, whilst the second measures the overall weight after the coating. The measuring system used for both measurements is a radiometric sensor with Krypton 85. *„Because of the metallic substrates, such as the coating of aluminium foil for example, this is the only option for us as the others are simply not suitable for this purpose”,* Göbeler

explains. During the continuous non-contact traversing, the flat-web material runs between sender and recipient. The measuring signals are transferred to the evaluation system along with the measuring position and are prepared for visualisation. The measuring head records the thickness. *„We are very satisfied with the measuring sensors and are able to intervene at any time in the measuring process when necessary”,* Göbeler continues with notable satisfaction, added that so far there have not been any disruptions or downtimes.

The solutions at the coating specialist are serviced once a year by the supplier, and if there are any questions BST ProControl can be reached over the phone at any time. Since the switch to the measuring technology from BST ProControl, the quantity of rejects has been significantly reduced and a consistent level of quality achieved.



SERVICE THAT THINKS. AND HELPS YOU GET FURTHER.

BST ProControl is specialized in the planning, production, implementation and modernization of instrumentation, control (e.g. coating thickness, layer thickness or basis weight) and automation (ICA) components.

Sensors designed for specific applications, combined with sophisticated automation and visualization systems, ensure precise registration, complete monitoring and analysis by basis weight measurement.

All measuring solutions by BST ProControl are applied in very different production processes, starting with plastic and metal sheeting, paper and textiles. The productions of foams, floor coverings, non-woven fabrics, metal sheets as well as products for the automotive industry are also important areas of application.

SERVICE NEEDED? JUST CALL US!

Do you have any questions or wishes concerning our service offer? The head of our service centre, Ms Heike Wachlinger, is looking forward to your call or email.

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Contact us: We are there for you!

We are happy to help!

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