

Press Release



Everything is printable - no matter if aircraft or flyer

Opening up additional markets with inkjet inks - Interview with Andreas Koch, head of inks at Zeller+Gmelin

Since May 2020, Andreas Koch has been responsible for the printing inks division at Zeller+Gmelin GmbH & Co. KG. His entry into his new role coincided with the turbulent first phase of the Corona pandemic. But despite its unforeseeable effects, the business unit has successfully stayed on course for the goals originally set during the past months under his leadership. What these are and what measures are being taken to achieve them are summarised in the following article.



Anyone who takes on a job in a managerial position typically tries to get to know customers and colleagues as quickly as possible and to get an up-to-date impression of the company's organisation through direct contact with employees and subsidiaries. But instead of personal contacts and travel, video conferences were the only means of contact for Andreas Koch when he took up the job as head of the printing inks division at Zeller+Gmelin in Eisingen. "It felt eerie. But looking back, it still worked, even though it took more time than usual to get oriented in the new working environment without physical meetings - but with mandatory masks," explains Andreas Koch. One example is the visit to the important subsidiary Zeller+Gmelin Corporation in Richmond, USA, which was still pending at the time of the interview.

More agility as a mission

Despite all the adverse circumstances, the start in his new position can be considered successful from today's perspective. Many interim goals were achieved. It was certainly an advantage here that his mission did not involve a serious change of course. Andreas Koch can also name the reasons concretely: "Zeller+Gmelin did a lot right in the past. Wise strategic decisions were made and the company has good products." As a result, his main focus in terms of goals is to increase the agility of the company in order to be able to react quickly with course corrections depending on the situation. This also includes enabling regular



innovations that are implemented quickly when the need becomes apparent. This will open up opportunities to once again noticeably boost the growth rate of the printing inks division. "In terms of products, this means," says Andreas Koch, "that we at Zeller+Gmelin want to remain at the forefront of the market for UV-curing ink systems, for example. Here I see us on a good course - especially with technological trends such as LED UV curing. Furthermore, we will build up inkjet printing as an additional mainstay and thus establish ourselves in a new market. And we can already report initial successes in this area as well."

Of course, the omnipresent topic of sustainability must not be missing either. In this context, the focus is on innovations such as the development of alternative raw materials or compostable printing inks. These are tasks in which Zeller+Gmelin works primarily with partners such as research institutes or raw material manufacturers. At the same time, one of the lessons learned from the current market situation will be to reduce the risk of dependence on individual suppliers when procuring raw materials.

Specialisation in UV-curing ink systems as a solid basis

From a technological point of view, the trend towards LED UV curing is just picking up speed. According to Andreas Koch, the Germany/Austria/Switzerland region, which is typically regarded as an innovation driver in Europe, is increasingly shedding its previous attitude of observation when it comes to LED. This has led to a high dynamic in the demand for LED-curable inks and coatings in recent months because the installation of corresponding machines has increased. This development is being given an additional boost by the sustainability discussion. The motivation of many users to invest in LED UV often goes hand in hand with the desire to save energy and emit less CO₂. A comparable trend can also be observed in the USA and China. Since Zeller+Gmelin offers corresponding ink series for both flexo and offset printing, the company benefits from this market trend. At the same time, the ink manufacturer is already working on versions for cup and tube printing as well as for metal printing. Thus, Zeller+Gmelin will be able to cover its entire range of applications with LED-curing ink technology in the foreseeable future.

Zeller+Gmelin's extensive know-how and good market position in the field of UV-curable ink systems have also enabled a promising collaboration. The Eislingen-based ink manufacturer was the first choice when Epple Druckfarben AG was looking for a cooperation partner. In future the two companies will jointly develop new UV inks. Epple is responsible for the worldwide distribution of UV-LED sheetfed offset inks. This segment is currently experiencing above-average growth because more and more commercial printers are investing in LED technology. The inks are manufactured at the Zeller+Gmelin site in Eislingen.

Project management with short decision-making paths

Andreas Koch sees a stabilisation of the innovation rate as an important prerequisite for a continuous growth course of the printing inks division. To this end, a team has been set up to evaluate the collected ideas for innovations and implement them within the framework of project management. There, sales, development and product management sit around the table to scrutinise each idea for market relevance, feasibility and technical aspects of feasibility, as well as for its probability of success. This project management team then decides as quickly as possible which ideas are to be processed as projects. The chosen organisational form relies on short decision-making channels and thus ensures that the ink manufacturer, as an agile unit, can realise ideas with a high probability of success even faster than before.



The market segment for which a development is intended also plays a role in the evaluation of innovation projects. In tube and cup printing, for example, where Zeller+Gmelin is very strongly established, says Andreas Koch, the focus will be on cautious further development of existing products. Projects in segments that are largely new territory for the ink manufacturer - such as inkjet printing - will be tackled with much greater dynamism.

Inkjet is relevant for many industries

Zeller+Gmelin strives for growth not only through innovative products, but also by entering new markets, e.g. in the field of inkjet printing. "This segment is a very attractive field of activity because almost all branches of industry deal with processes such as coating, decorating, precision-fitting, etc. The inkjet sector is particularly interesting for us wherever adhesive foils have to be applied with a precise fit or where varnishing is applied," explains Andreas Koch. Within a short period of time, the ink manufacturer has succeeded in commercially offering the first products in the UV inkjet sector, thus gaining a foothold in the market. At the same time, the company is already working with partners on projects for water-based inkjet printing.

Advantageous for the rapid successes were, in addition to the know-how from the general printing sector, above all the good contacts to suitable partner companies. After all, the mechanisms for marketing inkjet inks differ significantly from the business with conventional colour systems. Andreas Koch summarises his many years of experience in this field as follows: "In this segment there is less classical sales work, but primarily project work. In practice, this means looking for a partner and developing a new colour system together."

There are various possibilities for such partnerships. One is cooperation with a press manufacturer, for example, to take on the role of ink supplier in the development of a new printing system - or at least to be given the role of second supplier. In addition, cooperation with industry partners is also common in order to develop the appropriate ink for individual applications. For Zeller+Gmelin, for example, the market segment of moulded article printing is an obvious choice, for which special ink systems have already been supplied for years.

Expertise counts - no matter whether aircraft or flyers are to be printed

With its entry into the inkjet market, Zeller+Gmelin is confronted with new challenges. If the field of application of a printing ink is outside the classic printing and packaging industry, the projects should usually be handled by specialists who have detailed knowledge of the industry. This is not the case with all existing sales networks. However, the basis for a development is always the knowledge of which properties an ink needs in order to, on the one hand, print stably with the print head used and, on the other hand, meet the requirements for adhesion and resistance to various influences (mechanical, chemical or physical) both when applied to the respective surface and in the subsequent end application. "Those who are able to do this," says Andreas Koch, "can in theory serve almost all areas of application, regardless of whether a flyer or an aircraft is to be printed."

In the meantime, Zeller+Gmelin has had its first successes in the inkjet market. An ink has already been developed for the UV inkjet in the graphic arts sector. At the same time, other projects in various market segments are well on their way. In Eislingen, ink production has already started with its own production line. The business unit has crossed the threshold of profitability and volumes can be ramped up step by step. This sounds like good prospects for the future, which Andreas Koch also confirms: "Even if Zeller+Gmelin was not one of the pioneers in inkjet inks, the ship has not yet sailed. The know-how of our staff is at a high level, so we are able to develop saleable products in a short time. Based on the number and quality of the various inkjet projects, it



is very likely that this product segment will soon be the business area with the greatest momentum in terms of growth. In that case, the production capacity is always scalable by investing in appropriate technical components such as special bead mills for dispersing."

Securing the future with alternative raw materials

The topic of sustainability is determined by legal requirements and by public pressure. Against the background of this complex mixture, Zeller+Gmelin is trying to find a path that promises long-term success. From Andreas Koch's point of view, the company has set an important course for the future. Like everywhere else in the industry, the company in Eislingen is constantly busy replacing individual raw materials in paint formulations because their use is no longer permitted due to legal regulations. In addition, the company also invests a lot of energy in activities such as the search for alternative and sustainable raw materials. An interesting project with the Fraunhofer Institute, for example, involves a reactive binder in the form of hemicellulose. It is obtained from mash, which is a waste product from fruit juice production. The development, which is currently in the initial phase, is also a sensible approach because this raw material does not compete with feed or food plants.

The project for an industrially compostable paint has already been completed. A corresponding certification has been obtained. The deinkability of UV inks is also a much-discussed topic. Zeller+Gmelin had its ink series Uvalux® U40 and Uvalux® LED U540 tested for this property by the independent international research association Deinking-Technik (INGEDE). The results have impressively refuted the general prejudice that UV inks are supposedly difficult to deink.

The hurdles for future-oriented developments in inkjet printing are particularly high. There, the choice of raw materials is limited simply by the required property of very low viscosity. The task becomes all the more challenging when special specifications are added, e.g. from the food, pharmaceutical, cosmetics or toy sectors. According to Andreas Koch, water-based systems will probably be the solution for these applications in the future.

The person

The milestones in Andreas Koch's career seem to find him, not the other way around. He discovered the printing industry for himself rather by chance through a friend and the student festival at the University of Print and Media (HDM) in Stuttgart. Before that he had completed an apprenticeship as a mechanic and his original interest was in studying automotive engineering. The fascination for printing technology has remained with the now 53-year-old family man. He would make the same decision again for the printing industry. After all, the technology in this segment is developing so innovatively that he can always add exciting new experiences to his CV in each of his professional stations, no matter whether it is about printing formes, packaging papers, repro services or printing inks.

While his worldwide travelling was still very pronounced in the early 2000s during his work for the current board manufacturer Metsä Board, the smaller radius of action as managing director of the Rudolph Reproflex company in Goslar after the birth of his children definitely suited him in 2005. When he moved to the Flint Group as sales manager with a focus on OEM business in the market segment of the former BASF Printing Systems, he was able to relocate his centre of life with his family back to the Stuttgart area. Printing sleeves were a central theme in his numerous contacts with press manufacturers, since the company rotec had been taken over shortly before.

Looking back, he sees the ten years he spent at Marabu in Tamm as a very fruitful time. The ink manufacturer with a focus on screen and pad printing had set up a new division for inkjet and

digital printing in 2010. Especially the development of this business unit offered Andreas Koch numerous opportunities to act beyond the printing and packaging industry. He remembers, for example, projects involving the personalised printing of sports shoes or toy building blocks as well as the design of special models in the automotive sector or aircraft exteriors with a robotic inkjet system.

Andreas Koch has always found the changes to very different fields of work to be a source of inspiration and new energy. The experience he was able to gather in the process will definitely be a benefit to his current position as Division Manager of the Zeller+Gmelin Printing Inks Business Unit. In this position he has full responsibility for the global printing inks business and manages all areas from sales to development and product management to technical service. The current focus is on expanding the traditionally successful business field of inks and coatings for analogue processes to include innovative solutions for inkjet and digital printing in the short term. In pursuing this goal, he can benefit a lot from his different experiences.



Figure 1: Andreas Koch, new Head of Printing Inks at Zeller+Gmelin since May 2020