

Contribution by our partner BASF – Using paper chemicals intelligently yields top performance



Dr. Eckhard Parzich

BASF Aktiengesellschaft
eckhard.parzich@basf-ag.de



Dr. Hubert Meixner

BASF Aktiengesellschaft
hubert.meixner@basf-ag.de

Most modern paper chemicals used in the production and finishing of paper and board are functional polymers. Carefully fine-tuned to each individual paper machine, they control operational performance and paper quality. Planning begins at the design stage of a new production plant. An example of this is Voith Paper's joint project with BASF for starting up LEIPA's new PM 4 in Schwedt in eastern Germany.

Investing in big, state-of-the-art machinery has to pay off – and fast. What this means for machine suppliers is obvious. The operating features of the machines and the required paper qualities are both crucially dependent on the materials used. And these are first and foremost raw materials. Without, however, a customized paper chemical system to control it, even the most modern paper machine cannot fully exploit its quality and performance potential. This is particularly true when recycled paper is the only raw material used, as with the new LEIPA PM 4. The paper, after all, has to satisfy the demands of the market. Printability, whiteness, tear resistance, surface feel and many other properties are specified by customers in order to make the chances of successfully marketing their products calculable.

Cooperation generates added value

The trend towards consolidation in the paper industry and fierce competition between suppliers has intensified the push towards further increases in efficiency across the entire process. Along with

Voith Paper, we see this as an enormous opportunity – not least due to the positive experiences made during joint projects in the past. Bundling the resources of both partners within the framework of efficient project management generates added value for the paper industry. There is particularly strong potential in cooperating on the planning and launch of new paper machines – for their mutual customers.

As a specialist for modern paper chemicals, BASF has developed a chemicals system for LEIPA that spans the entire process from paper production to paper coating. What is crucial is ensuring that the various parts of this complex system – raw materials, process technology and paper chemicals – are meticulously fine-tuned.

Even before the PM 4's first trials, BASF and Voith successfully met the paper quality required by LEIPA. The tests were carried out under realistic conditions in both companies' pilot plants. The subsequent printing trials confirmed that our formulations delivered the desired results. These pre-trials made a vital contribution to preventing delays in the

Fig. 1: Pilot coater at Voith Paper, Heidenheim.

Fig. 2: Pilot coater at BASF AG, Ludwigshafen/Rhein, Germany.

Fig. 3: The BASF AG site at Ludwigshafen/Rhein, Germany.



ambitious timetable and to ensuring a stable operating performance from the machine's very first start-up trials.

The example of the No. 4 machine at LEIPA clearly shows that working together with the machine supplier, our strategic partner Voith Paper, means we can achieve ideal results more quickly and more efficiently. Our timing was spot-on and in fact we were even several weeks ahead of schedule. Together with our

customer, we now plan to identify further room for improvement and to implement the necessary measures swiftly.

New ideas for tomorrow's projects

Of course we do not persist in our current level of knowledge. Along with our strategic partner Voith Paper, we are working on development projects that

will benefit our customers in the future. One of these is the curtain coater, a technology in which Voith is a leader and which was largely developed at its pilot plant in Heidenheim, Germany. Here too, we will be taking advantage of the synergies created by the research and development potential of our two companies and in this way improving considerably the chances of introducing new technologies. Our partnership with Voith Paper is both successful and open.

