

A STRONG PARTNER TO THE PAPER INDUSTRY

The international paper industry is constantly evolving and facing numerous challenges. Innovative technology is one of the key drivers of sustainable and profitable growth. ACAT recognised the signs of the times many years ago and developed the BondStar® dry strength agents – a highly effective product range for cost-effective and efficient papermaking:



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The beginnings of ACAT's BondStar® dry strength agents date back to 2010. "That was when e-commerce was really taking off, and the demand for packaging material was growing rapidly. The global COVID pandemic led to a surge in demand," says Nuri Kerman, who heads the papertech division and has been instrumental in driving the development of the BondStar® products at ACAT.

To produce packaging cost-effectively and sustainably, waste paper is the primary raw material used. "It was foreseeable that the increased demand for waste paper would require a further increase in collection rates. However, extensive recycling had a significant impact on the quality of the fibres. The challenge was to compensate for the loss of strength, ensuring that the packaged goods could still be transported safely. This is where our polymer-based BondStar® dry strength agents came into play," says Kerman. In 2017, a separate, globally valid patent was registered.

14 years of expertise

Years of experience with BondStar® dry strength agents have shown impressive results in daily practice, Kerman explains: "They lead to a significant increase in all strength values and greatly improve ply bond. They also boost the initial wet strength, making the paper more resistant to moisture." In addition, BondStar® dry strength agents increase z-strength, which means less picking and dusting. Another positive effect is a more stable paper web, ensuring smoother feeding and higher production speeds. In addition, BondStar® dry strength agents offer the potential to replace primary

fibres with recycled paper and reduce – or completely eliminate – the use of wet-end or surface starches. This leads to smoother operations and notable energy savings, including lower steam costs.



Advantages in black and white

All these benefits are also reflected in specific figures, as a look at a paper mill that relies on ACAT's innovations shows. For example, 38 per cent less surface starch was required in the production process for the same strength. Steam consumption fell by 11 per cent, and the number of breaks dropped by 44 per cent. The downtime was reduced by half, and the need for retention agents by a fifth. Most importantly, production has increased by six per cent. Nuri Kerman (ACAT, Head of papertech): "We are committed to being very customer-oriented and

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providing the best solution for our customers. With BondStar®, we have been very successful in this, as the practical experience we have gained demonstrates.”

Production on site

ACAT BondStar® dry strength agents are in demand all over the world and can be used across a wide range of applications, including packaging papers, graphic papers and tissue. BondStar® is available in different concentrations as a commercial product. “We also specialise in on-site technology, where production takes place cost-effectively at the paper mill itself.” For this purpose, ACAT builds tailor-made systems directly at the customer’s location. ●

