

Press release

Mannheim, 3 December 2024

Südzucker develops paper and packaging material from sugar beet

BeetKraft® - an innovative product for the paper and packaging industry

Südzucker is launching a high-quality fibre for the paper and packaging industry. BeetKraft® is made from co-products that arise during sugar production and processed into a high-quality substitute for wood-based pulp using a patented refining process. After intensive collaboration with technology partner Zelfo Technology GmbH and Simply By Nature, Südzucker will produce industrial quantities of BeetKraft® at a demonstration plant at the Offstein factory in Rhineland-Palatinate from the end of 2024.

Regionally from southern Germany

BeetKraft® enables paper producers to replace up to 40 per cent of the classic, primary wood fibres, such as bleached hardwood kraft pulp, in the paper recipe, while simultaneously increasing the stability of the cardboard and paper. This also makes it possible to reduce the overall weight of packaging. In addition, the transport distances for the procurement of raw materials for paper production can be significantly reduced: Südzucker sources and processes the sugar beets locally in southern Germany – in close proximity to paper manufacturers in Germany. As a co-product from sugar production, BeetKraft® fibres contribute to the complete utilization of the sugar beet.

Wide range of applications

BeetKraft® is particularly suitable for kraft paper applications or folding boxes and can also be used for cardboard and containerboard. The paper produced has already been successfully used on a trial basis in demonstration and industrial plants for packaging sugar products, among other things, after a declaration of compliance with food safety regulations had been issued. BeetKraft® can be used to produce paper for direct contact with dry, non-fatty foodstuffs. The papers have an appealing, high-quality and natural look, which allows the consumer goods industry to stand out on the shelf.

Proven quality

The material properties of BeetKraft® and its suitability as an alternative fibre material for the production of different paper qualities has been examined and evaluated in collaboration with PTS – Institute for Fibres & Paper, the research and service institute of the paper industry. After a

laboratory-scale material screening, tests were carried out with various materials in combination with primary and secondary fibres to produce different paper qualities on the PTS pilot paper machine.

Further information about BeetKraft® can be found at https://www.suedzucker.com/de/beetkraft.

Südzucker AG Maximilianstraße 10 68165 Mannheim

Press.

Corporate Public Relations & Affairs Phone: +49 621 421-205 public.relations@suedzucker.de

About the Südzucker Group

Südzucker is a major player in the food industry with its sugar, special products, starch and fruit segments, and Europe's leading ethanol producer with its CropEnergies segment.

In the traditional sugar business, the group is Europe's number one supplier of sugar products, with 23 sugar factories and two refineries, extending from France in the west via Belgium, Germany and Austria, through to Poland, the Czech Republic, Slovakia, Romania, Hungary, Bosnia, and Moldova in the east. The special products segment, with its consumer-oriented functional ingredients for food and animal feed (BENEO), chilled/frozen products (Freiberger) and portion packs (PortionPack Group), operates in dynamic growth markets. Südzucker's CropEnergies segment is Europe's leading producer of renewable ethanol, with production sites in Germany, Belgium, France and Great Britain. Other products in this segment are protein food and animal feed products as well as biogenic carbon dioxide. The starch segment comprises AGRANA's starch and ethanol activities. The group's fruit segment operates globally, is the world market leader for fruit preparations for dairies and is a leading supplier of fruit juice concentrates in Europe.

In 2023/24, the group employed about 19.200 persons and generated revenues of about EUR 10.3 billion.

About Südzucker's Sugar Division

Südzucker's Sugar Division is an organisationally independent unit within Südzucker AG. It includes all sugar factories in Germany (Südzucker AG including Weizenstärke Zeitz), Belgium (Raffinerie Tirlemontoise), France (Saint Louis Sucre), Poland (Südzucker Polska) and Moldova (Südzucker Moldova) as well as all sugar sales offices. The Sugar Division operates a total of 16 sugar factories in Europe, employing approximately 5,000 people. The main products are sugar

and sugar specialities for end consumers and industrial processors. Co-products include animal feed and 'Carbokalk' (calcined lime). The portfolio is supplemented by further sugar beet-based products and services tailored to customer requirements.

In the 2023/24 financial year, the entire Südzucker AG sugar segment, which in addition to the Sugar Division also includes AGRANA with its 7 sugar factories and 2 refineries, processed around 27.2 million tonnes of beet into around 4.1 million tonnes of sugar (including raw sugar refining). The beet cultivation area across Europe was approximately 354,000 ha.

About Simply By Nature GmbH

SIMPLY BY NATURE GmbH is a Cologne-based company specialising in the development and marketing of sustainable fibres made from agricultural residues for the paper and packaging industry. It pursues the vision of inspiring the future of packaging solutions through environmentally conscious innovations and making a positive contribution to environmental protection. SIMPLY BY NATURE primarily acts as an interface between research institutions, partners and customers to promote the acceptance and dissemination of sustainable packaging solutions.

About Zelfo Technology

Zelfo Technology is a pioneer in engineered natural fibres and has developed a technology that enables the valorisation of a wide range of agricultural residuals for packaging, paper & board applications. Fibre engineering can be described as modifying the fibre structure to impart new properties to these fibres, such as self-binding abilities, which creates opportunities for binderless products and/or replacement of purely cellulosic furnishes. This allows ZT to increase the value of materials that previously had limited applications.

Supported by various patents, ZT has developed purely mechanical processes that form a plat-form technology which is extremely flexible, both in terms of intake and output, and can be installed as a « plug-in » to existing production systems.

In addition, Zelfo Technology has extensive experience with a wide spectrum of cellulosic & ligno-cellulosic materials: virgin & recycled cellulose, agro-residues, industrial waste (textile, deinking sludge, etc). The main applications today are in paper, in fibre moulding, and in insulation and construction boards. Zelfo Technology has its head-office and Pilot Plant in Germany, North of Berlin. More information on www.zelfo-technology.com.