

Media Release

Voith Paper

Mailing address:
J.M. Voith SE & Co. KG
Global Communications Voith Paper
St. Poeltener Strasse 43
89522 Heidenheim, Germany
Tel. +49 7321 37-2209
www.voith.com

Progress in sustainable packaging: Voith and the 4evergreen alliance drive innovative projects forward

2024-01-18

- Voith intensifies its involvement in the 4evergreen alliance, a network of more than 110 members from the fiber-based packaging value chain
- Voith provides support especially in the area of innovative pulping technologies for sustainable packaging and conducts numerous trials in its Fiber Technology Center (FTC)
- Goal of the 4evergreen alliance: 90% recycling rate for fiber-based packaging by 2030

HEIDENHEIM. The leading full-line supplier Voith is intensifying its commitment to the 4evergreen alliance with a number of pioneering projects. Among other things, the focus is on innovative processes for dissolving barrier papers on an industrial scale. The alliance consists of over 110 members representing the entire life cycle of fiber-based packaging – from forest owners to producers, designers, brand owners and recyclers. Together, they share their expertise to develop tools and guidelines for an even more sustainable sector. As a member of the “Novel Recycling Technologies” Working Group within 4evergreen’s Innovation Workstream, Voith is instrumental in developing new solutions. Members from other workstreams also draw on Voith's expertise in stock preparation and recycling concepts.

Bernd Gueldenberg, Senior Vice President Research and Development at Voith Paper, emphasizes the importance of the cooperation: “Voith is proud to be a leading technology partner in the 4evergreen alliance, driving innovative solutions for the paper industry. Our expertise in stock preparation and recycling concepts enables us to actively address the challenges of the industry and achieve sustainable progress.”

Voith's commitment focuses on researching and developing innovative pulping concepts to increase the recyclability of fiber-based packaging. The diverse capabilities of the Voith Fiber Technology Center (FTC) play a crucial role in this. The FTC serves as a test environment for the recyclability of packaging papers and enables the investigation and development of sustainable solutions in close cooperation with other members of the alliance.

Voith Paper

Mailing address:

J.M. Voith SE & Co. KG
Global Communications Voith Paper
St. Poeltener Strasse 43
89522 Heidenheim, Germany
Tel. +49 7321 37-2209
www.voith.com

Page 2 of 5

The FTC focuses on projects that address the challenges of sorting and recycling barrier paper and board products. Technologies and processes are being developed to increase the overall recycling rate of fiber-based packaging. The project is divided into three main steps: First, preliminary studies will be conducted to identify the most promising dissolution concepts. The best evaluated concept will then be tested as a pilot project at the Fiber Technology Center (FTC). After the test runs, the concept will be further optimized and additional investigations will be carried out to ensure the best possible processing of the recovered raw material.

As part of this cooperation, Voith is carrying out comprehensive investigations and trials. State-of-the-art technologies such as near-infrared measurements and NDR measurements are used to detect stickies and other impurities that are introduced into the system via the raw material. These enable the precise analysis of the properties of paper grades and the detection of impurities such as stickies, but also polyethylene, which is frequently used in barrier papers. The knowledge gained forms the basis for the development of novel pulping concepts and the analysis of the efficiency of cleaning aggregates. A total of around 70 NIR (Near InfraRed) measurements were carried out on selected raw materials to evaluate the different barrier properties.

Sustainable packaging in the EU

The 4evergreen alliance has set a target of 90% recycling rate for fiber-based packaging by 2030. Fiber-based packaging plays a crucial role in the circular economy. With a recycling rate of an impressive 82.5%, they are already making an important contribution to sustainability. Compared to other materials such as metal (74.8%), glass (74.9%) or plastic (39.7%), they perform significantly better. Fiber-based packaging also scores highly in terms of climate protection. Since 1990, carbon dioxide emissions have been reduced by 48%. In addition, more than 60% of the energy required comes from renewable sources, making the industry a pioneer in the use of regenerative energies. Last but not least, fiber-based packaging is winning over consumers. European consumers prefer packaging made of

paper and cardboard due to its sustainable properties. For 62%, this type of packaging is better for the environment and 57% consider it easier to recycle than other types of packaging.

The FTC

The Voith Fiber Technology Center offers state-of-the-art research facilities for efficient process analysis and extensive testing capacities for new processes and paper grades. Here, primary and secondary fiber materials are prepared under practical conditions for all paper grades. This enables trials to improve yield, fiber properties, cleanliness and energy efficiency. Locations are in Heidenheim, Germany, and Motomiya, Japan. Available process steps include pulping, flotation, refining, thickening/washing, deflaking, dispersing, screening/fractionation, bleaching, and various centrifugal cleaners.

About the 4evergreen alliance

4evergreen is a cross-industry alliance of over 110 members representing the entire lifecycle of fiber-based packaging – from pulp, paper and board manufacturers and recyclers to packaging producers and converters, including brand owners, retailers, and waste management companies. It also comprises non-fiber material suppliers (e.g., adhesives, inks, coatings), technology providers (e.g., machinery, collection, and recycling solutions), leading research institutes, and start-ups.

Together they share expertise to develop tools and guidelines for an even more sustainable sector. Their goal is to reach a 90% recycling rate for fiber-based packaging by 2030.

In addition to their focus on innovation, other workstreams within the alliance are defining important Europe-wide standards for the paper and cardboard industry. These include the Recyclability Evaluation Protocol - to assess the recyclability of individual fiber-based packaging products - and the Circularity by Design Guideline - to ensure that packaging is designed for optimal recycling from the start. At the same time, the members are developing recommendations for collection and sorting systems through the Guidance on Improved Collection and Sorting. For more information, visit 4evergreenforum.eu.

About the Voith Group

The Voith Group is a global technology company. With its broad portfolio of systems, products, services and digital applications, Voith sets standards in the markets of energy, paper, raw materials and transport & automotive. Founded in 1867, the company today has around 22,000 employees, sales

Voith Paper

Mailing address:

J.M. Voith SE & Co. KG
Global Communications Voith Paper
St. Poeltener Strasse 43
89522 Heidenheim, Germany
Tel. +49 7321 37-2209
www.voith.com

of € 5.5 billion and locations in over 60 countries worldwide and is thus one of the larger family-owned companies in Europe.

The Group Division Voith Paper is part of the Voith Group. As the full-line supplier to the paper industry, it provides the largest range of technologies, services and products on the market, and offers paper manufacturers integrated solutions from one source. The company's continuous stream of innovations facilitates resource-conserving production and helps customers minimize their carbon footprint. With its comprehensive automation products and leading digitalization solutions from the Papermaking 4.0 portfolio, Voith offers its customers state-of-the-art digital technologies to improve plant availability and efficiency for all sections of the production process.

Voith Paper

Mailing address:

J.M. Voith SE & Co. KG
Global Communications Voith Paper
St. Poeltener Strasse 43
89522 Heidenheim, Germany
Tel. +49 7321 37-2209
www.voith.com

Page 4 of 5



As part of the cooperation with the 4evergreen alliance, Voith is carrying out comprehensive investigations and trials. Copyright picture: 4evergreen alliance.

Contact

Naomi Keitel
Manager Global Communications Voith Paper
Tel. +49 7321 37 2209
Naomi.Keitel@Voith.com

Voith Paper

Mailing address:

J.M. Voith SE & Co. KG

Global Communications Voith Paper

St. Poeltener Strasse 43

89522 Heidenheim, Germany

Tel. +49 7321 37-2209

www.voith.com

LinkedIn

<https://www.linkedin.com/company/voithgroup>

<https://www.linkedin.com/company/voith-hydro>

<https://www.linkedin.com/company/voith-paper>

<https://www.linkedin.com/company/voith-turbo>

YouTube

<https://www.youtube.com/voithgroup>

Instagram

<https://www.instagram.com/voithgroup>

Facebook

<https://www.facebook.com/VoithGlobal>