

NKK and Lenzing AG celebrate 25 years of separator paper production with LENZING™ Lyocell fibers

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- Cellulosic separators manufactured using LENZING™ Lyocell fibers have become an industry benchmark with a dominant market share for high performance super-capacitors
- The thinner separator papers enable energy conservation and contribute to a carbon zero future

24 November 2021, Lenzing – NIPPON KODOSHI CORPORATION (NKK) is proud to celebrate 25 years of successful production of NKK Cellulion® separator papers, produced using LENZING™ Lyocell fibers, developed and supplied by Lenzing AG, the Austrian-based technology-leader for specialty wood-based cellulose fibers. The separator papers, which are 100% cellulose in composition, are used in electric double layer capacitors (EDLC), Lithium-ion batteries (LiB) and other energy storage devices.

The continued development of battery technologies emphasizes the need for further optimization in thickness reduction and performance of separator papers. The demand for increasingly sophisticated electrical storage devices and the required separator papers has grown since early adoption in aluminum electrolytic capacitors and they are now a vital part of the e-mobility revolution. Designed to enable sustainable energy solutions, the microfibrillar structure and thermal stability of LENZING™ Lyocell fibers make them a suitable ingredient in electrical separators for applications such as Lithium-ion batteries, supercapacitors and electrolytic condensers, particularly in the new generation of electric vehicles.

Lenzing and NKK are both committed to utilizing low environmental impact manufacturing to achieve decarbonization, echoing the Paris Climate Agreement's goal to achieve net-zero emissions by 2050. Through the partnership, Lenzing and NKK have been key drivers in accelerating the development of novel fiber and separator products respectively, continuing to provide sustainable solutions for future transport and energy needs.

“We are proud to be on such an exciting journey with NKK. Together we are making an important contribution to reducing global CO2 emissions through the development of high efficiency cellulose-based separator materials,” reflected Jürgen Eizinger, Vice President of Global Nonwovens Business, Lenzing AG. “The long-standing cooperation between our two companies combined with the low environmental impact of LENZING™ Lyocell fibers, which originate from renewable raw material wood, provides a beacon for tackling global warming.”

“NKK is delighted to celebrate our long-standing cooperation with Lenzing AG,” said Shunji Chikamori, President of NKK. “Separator papers with LENZING™ Lyocell fibers, produced using NKK’s optimized paper manufacturing technology, have set the standard for our LEAF (LiB, EDLC, Alkaline and Functional) product portfolio. LENZING™ Lyocell fibers are an essential component in engineering quality performance of our materials.”

Images related to the announcement can be downloaded [HERE](#).

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About LENZING™

LENZING™ is the specialty industrial brand under the Lenzing Group. The brand is leading industry standards in sustainability to provide smart solutions from botanic origins that offer advanced performance and are made in environmentally sound production processes. Fibers under the LENZING™ brand are biodegradable and derived from semi-natural forests and sustainably managed plantations, as proved by FSC® or PEFC™ certification.

The LENZING™ brand’s solutions cover a range of industrial applications under branded offers LENZING™ for Automotive Interiors, LENZING™ for Protective Wear, LENZING™ for Workwear, LENZING™ for Packaging, LENZING™ for Agriculture, LENZING™ for Engineered Products, LENZING™ for Biorefinery and Co-Products. The solutions feature fiber types LENZING™ Lyocell, LENZING™ Modal, and LENZING™ Viscose. LENZING™ solutions are developed using innovative technologies such as FR technology, REFIBRA™ technology, Eco Soft technology, and Eco Color technology.

About the Lenzing Group

The Lenzing Group stands for ecologically responsible production of specialty fibers made from the renewable raw material wood. As an innovation leader, Lenzing is a partner of global textile and nonwoven manufacturers and drives many new technological developments.

The Lenzing Group’s high-quality fibers form the basis for a variety of textile applications ranging from elegant ladies clothing to versatile denims and high-performance sports clothing. Due to their consistent high quality, their biodegradability and compostability Lenzing fibers are also highly suitable for hygiene products and agricultural applications.

The business model of the Lenzing Group goes far beyond that of a traditional fiber producer. Together with its customers and partners, Lenzing develops innovative products along the value chain, creating added value for consumers. The Lenzing Group strives for the efficient utilization and processing of all raw materials and offers solutions to help redirect the textile sector towards a closed-loop economy. In order to reduce the speed of global warming and to accomplish the targets of the Paris Climate Agreement and the “Green Deal” of the EU Commission, Lenzing has a clear vision: namely to make a zero-carbon future come true.

Key Facts & Figures Lenzing Group 2020

Revenue: EUR 1.63 bn

Nameplate capacity: 1,045,000 tons

Employees: 7,358

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About NKK

Nippon Kodoshi Corporation (NKK) was initially founded in 1941 to produce traditional Japanese paper ‘Tosa Washi’, for decoration bags to carry Chinese herbs. The business evolved to produce high performance separators for the newly emerging aluminum electrolytic

capacitors. NKK has developed and successfully commercialized a range of materials for a wide range of electronic (capacitor and battery) devices. This success is based on a deep understanding of raw material properties, exploitation of wet-laid processing technologies and an absolute commitment to product quality. A turning point in the company's development was the breakthrough development more than 50 years ago of "double-paper" manufacturing technology that combines both high-density and low-density papers. Since then, NKK has continued developing technology to meet the needs of each new generation of electrical devices. Based in multiple sites around Japan to ensure robust continuity, NKK reaches out beyond domestic shores to the global marketplace. At this time NKK employs over 500 people and has a turnover of around JPY 16, 000,000,000. NKK has a strategic mission to continue to grow and service the increased demand of a global marketplace with the goal to build on the vision of a technology-leading company that creates the world's highest quality and reliable products. Going forward, NKK will continue to offer a sustainable business model based on scientific development goals and is committed to be carbon zero by 2050.