

### **For smartphones, clothing and packaging: Kuraray's Poval plant in Höchst supplies PVOH to Europe. Now it is celebrating its 50th anniversary.**

Production of PVOH (polyvinyl alcohol) started in Höchst Industrial Park in Frankfurt 50 years ago. Now this Kuraray site is one of the world's leading production facilities and continues to set new standards for this sought-after polymer.

Höchst/Hattersheim, November 24, 2021. Polyvinyl alcohols play a key part in many everyday products: paper, plastics, food packaging, adhesives, ceramics and building materials. A large proportion of the polymer used in Europe is produced by Kuraray at Höchst Industrial Park in Frankfurt, Germany. When it came into service back in 1971, the Poval production plant set standards because of the complexity of its processes. Today, this plant belongs to Kuraray, one of the world's leading speciality chemicals producers, which has its European headquarters in Hattersheim, Germany. With capacity of up to 94,000 tonnes p.a., the plant is the biggest PVOH production facility in Europe and high-quality Poval products make an important contribution to innovations. For example, high-purity, biodegradable PVOH polymers produced in Höchst are used to manufacture high-performance paper-based packaging materials that are easy to recycle, making them a sustainable substitute for plastics in many areas.

“Polyvinyl alcohols are essential for many applications, yet many people have no idea how many things our polymers are used for,” says Heiko Mack, Director of Poval Business at Kuraray. “They make sure the disposable coffee cups from the take-away are watertight, biodegradable and recyclable. They are used as polarizing filters to give the LCD displays on our smartphones and tablets optimum contrast, even in strong sunlight. Moreover, our polymers are used to coat paper, in building materials, adhesives and ceramics and in the textile industry. That makes them real champions of versatility. A large proportion of the PVOH used in Europe comes from the Kuraray Poval plant in Höchst Industrial Park in Frankfurt - which has been producing polyvinyl alcohol for exactly 50 years.”

**A site that has been setting standards in PVOH production for 50 years**  
PVOH production started in Frankfurt back in 1970. Originally, the plant belonged to Hoechst AG and the product was marketed as Mowiol. From the beginning, the focus was on producing polymers that far exceeded the previous standard. That is made possible by complex, modern production strategies, which are also a distinctive feature of the plant. “Our customers' demands differ greatly. We deliver high-purity materials in different viscosities, hydrolysis grades and packaging forms for their products,” explains Michael Giebisch, Head of Poval Operations. “Internally, our processes are highly networked. State-of-the-art technology is used in the different production steps. And since the start of 2020, our production facilities have been able to meet the high standards of GMP (good manufacturing practice).”

### **Six lines produce up to 94,000 tonnes of Kuraray Poval a year**

The plant always moves with the times and keeps up with rising demand. A fourth production line was added to the original three in 1978. Following the acquisition of the plant in 2001, Kuraray invested to optimize the production facilities and also increased capacity by adding lines 5 and 6. Overall, production capacity at the plant is now 94,000 tonnes p.a., making it the largest PVOH production facility in Europe. The Development and Technical Service departments attached to the plant develop specific PVOH grades to meet individual customer requirements and innovative materials, for example, for the production of optical fibres, technical textiles and products with a better sustainability profile. The high-purity, biodegradable PVOH polymers marketed under the Kuraray Poval brand name can be used to produce fully compostable paper packaging. Kuraray Poval 5-88 FA is a PVOH polymer with outstanding compatibility that meets the high specifications of the food and animal feed industries.

### **Passion for PVOH: more than 100 employees**

Sustainability is not only a major objective in the development of new PVOH polymers; it is also a key target for the production facility: “We're constantly working to make our plant even more environmentally friendly,” says Michael Giebisch. “For example, the introduction of complex heat recovery in the distillation unit means that we can now directly re-use most of the heat energy we need. In this way, we have significantly increased our energy efficiency in recent years.” Using an all-round energy management system, Kuraray is working continuously to improve the sustainability of Poval production still further.

The operation of Europe's largest PVOH production plant relies on the commitment of more than 100 employees who work in production, technology, logistics, environmental protection, occupational safety and quality control. Michael Giebisch: “Thanks to the passion for constant optimization and innovation shown by our colleagues at this site and the experience gained in 50 years of operation, we will continue to create innovative solutions for PVOH in the future. And Europe can rely on us to supply this key polymer.”

### **[Infobox]**

#### **Milestones in 50 years of PVOH production at Höchst Industrial Park**

Smartphones, textiles, packaging, ceramics: PVOH plays a key role in many applications. This versatile polymer has been produced at Kuraray's site in Höchst Industrial Park (Frankfurt, Germany) for 50 years. Here are some important milestones in the history of Europe's largest PVOH plant:

**1971:** Start of production of polyvinyl alcohol (PVOH) - originally called Mowiol - on three production lines at Höchst Industrial Park. Back then, the site belonged to Hoechst AG.

**1978:** Construction of a fourth production line to increase capacity.

**2001:** PVOH production acquired by Kuraray. In the following years, the Poval production facility was extensively modernized and two additional production lines were built to meet rising demand for PVOH.

**2011:** Introduction of heat recovery in the distillation unit. This greatly increased the energy efficiency of the plant in the following years.

**2013:** Introduction of an ISO 50001 certified energy management system for the entire Kuraray Poval plant at Höchst Industrial Park. Continuous optimization of environmental and climate protection is a major target for Poval production.

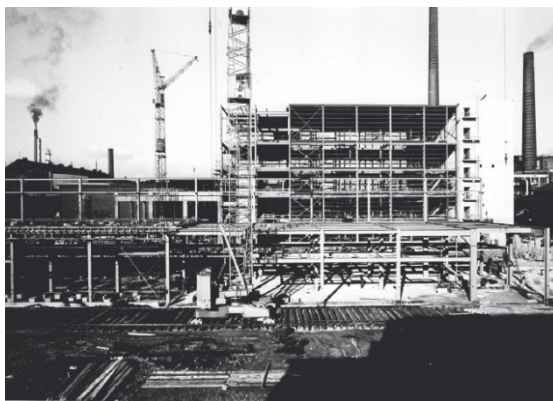
**2020:** GMP-compliant production of Kuraray Poval 5-88 FA meets the high standards of the food and animal feed industries.

**2021:** The Kuraray Poval plant in Höchst celebrates its 50th anniversary. With more than 100 employees and production capacity of 94,000 tonnes p.a., this plant is the largest PVOH production facility in Europe.

Captions/source of photos: Kuraray



**[Photo 1]** “Polyvinyl alcohols are present all around us: they protect fibres during weaving of fabrics for our clothes and are used in every LCD display,” says Heiko Mack, Director of Poval Business at Kuraray. “A large proportion of the PVOH used in Europe comes from our state-of-the-art facility in Frankfurt - which has been producing PVOH for 50 years.”



**[Photos 2 and 3]** A site that has been setting standards for half a century: in 1971, when production of polyvinyl alcohol started at Höchst Industrial Park in Germany, the facility was one of the first PVOH production plants in Europe. Since Kuraray acquired the plant in 2001, it has become Europe's largest producer of this versatile polymer. Thanks to highly networked processes, production capacity at the facility is now 94,000 tonnes p.a.



**[Photo 4]** “At Europe’s largest production facility for polyvinyl alcohol, in Höchst Industrial Park, we have more than 100 employees who produce high-quality PVOH polymers for demanding applications - from paper and packaging to optical fibre technology,” says Michael Giebisch, Head of Poval Operations. “Our state-of-the-art technologies enable us to produce biodegradable polyvinyl alcohols in conformance with stringent specifications as well as meeting top purity and quality requirements.”

### **About Kuraray**

Established in 1991, Kuraray Europe GmbH is based in Hattersheim, near Frankfurt am Main, Germany. In 2020 the company generated annual sales of EUR 593 million. It has more than 800 employees in Germany at its sites in Hattersheim, Frankfurt and Troisdorf. Kuraray is a global speciality chemicals company and one of the largest suppliers of industrial polymers and synthetic microfibres for many sectors of industry. Examples are Kuraray Poval™, Mowital®, Trosifol® and Clearfil™. Kuraray Europe also has around 215 employees at six other European sites. They are also working on the development and application of innovative high-performance materials for a wide range of sectors, including the automotive, paper, glass and packaging industries, as well as for architects and dentists.

Kuraray Europe is a wholly owned subsidiary of the publicly listed Kuraray Co., Ltd., which is based in Tokyo, Japan, and has more than 11,200 employees worldwide and sales of EUR 4.4 billion.

The press release and photos are also available on our website:

<https://www.kuraray.eu/company/media/press-releases>

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