

Kelheim Fibres GmbH – Where Tradition and Innovation Meet

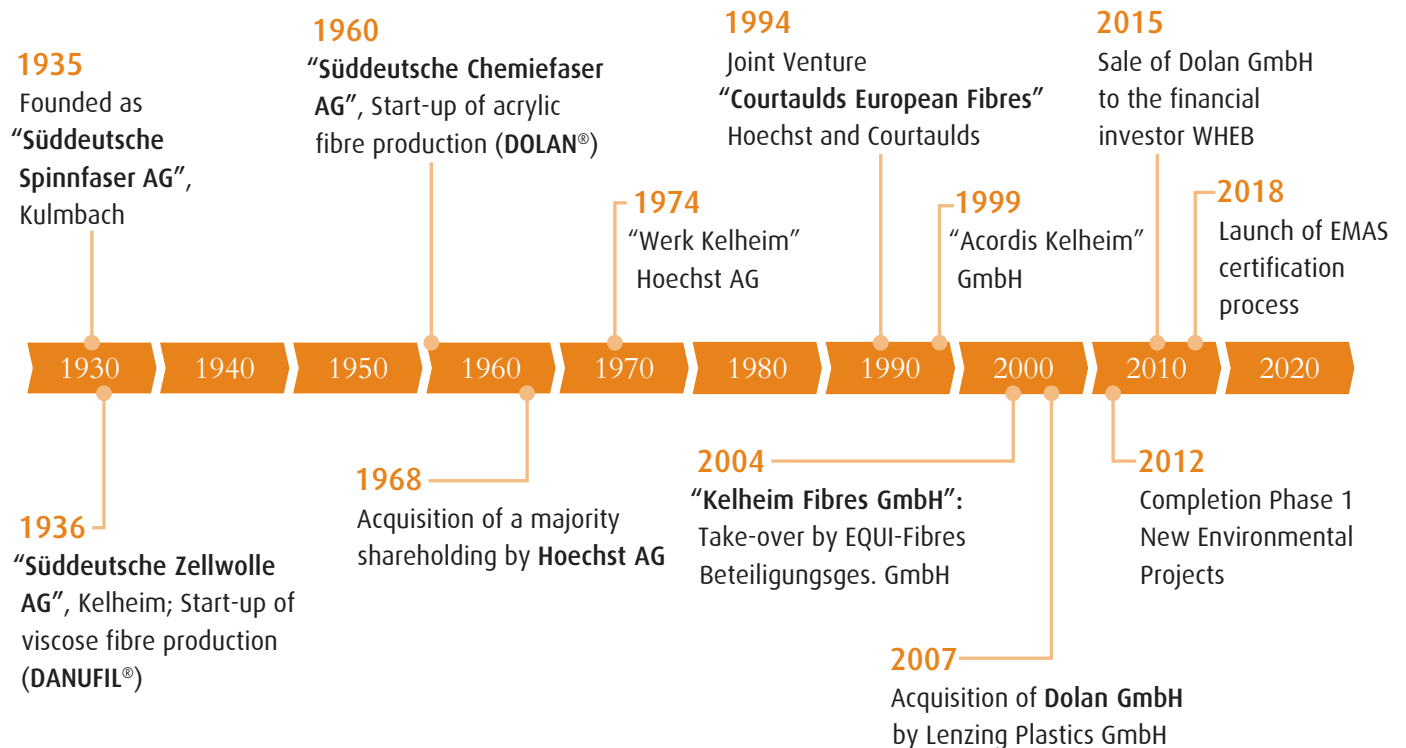




Accomplishing Ambitious Goals since 1935

Cellulosic fibres have been produced in our factory in Kelheim, Germany for more than 80 years. As one of the world's leading suppliers, Kelheim Fibres contributes to the success of many brands and products. The fibres we produce are used by the world's leading brands in the manufacture of feminine hygiene and personal care products, as well as filtration, insulation and textile products. Our highly sophisticated technologies and expertise ensure that all of our products are of high quality. Our innovations have become industry benchmarks and effectively meet our customers' quality needs. In order to continue building a successful future, our corporate policy is based on innovation, specialisation and reinvestment. As a successful market leader, we are also an important employer in the region and offer high-quality and secure jobs.

Then and Now: Combining Experience and Knowledge





Joining Forces: Sharing Space and Expertise



Kelheim Fibres GmbH is owner and operator of the site and site infrastructure in Kelheim. The site is home to two other independent fibre companies, which are supplied with utilities and other services. A joint works council represents the employees of all three companies and there is a joint wage agreement.

Kelheim Fibres GmbH has around 500 employees and a maximum annual capacity of 90.000 t/annum of viscose fibres.

The Foundation of our Success: Our Company's Core Values



Kelheim Fibres' success is based on three principles that we actively practice and support. They are trust, engagement and innovation, and shape our day-to-day operations.

Trust

The reputation of many international brands depends on our products and services. Both customers and consumers rely on our products meeting the highest quality standards. Beyond this, trust also marks the relationships within our company, with our suppliers and other stakeholders. We actively work in their interests and consider safety, occupational health and environmental protection as keys to our success.

Engagement

Engagement with our customers, through our products and service, as well as with our employees and suppliers is of the highest priority. Being engaged means always giving our best and remaining fully focussed at all times, allowing us to achieve extraordinary results and mutual success.

Innovation

Innovations form the cornerstone of our success, and we promote an open and creative corporate culture where ideas can flourish. This enables us to develop products and processes that are highly effective in meeting our customers' needs and set industry standards. Continuous improvement of our products and production processes also enables us to sustainably increase our company value and competitiveness.





Ethics and Compliance

All interactions between our company's management, employees, suppliers and other partners are marked by respect and we consider fairness and sound interpersonal interactions as essential to our success.

Health and Safety

The health and safety of our staff members is of paramount importance to us. We ensure that all of our employees work in a proper and safe environment – remaining true to the company's basic principle:

"Our work is never so urgent or important that we cannot take the time to do it safely."

Endless Possibilities: Our Rich Product Portfolio



Hygiene Fibres

Kelheim Fibres is the global market leader for tampon and personal care fibres.



Specialities

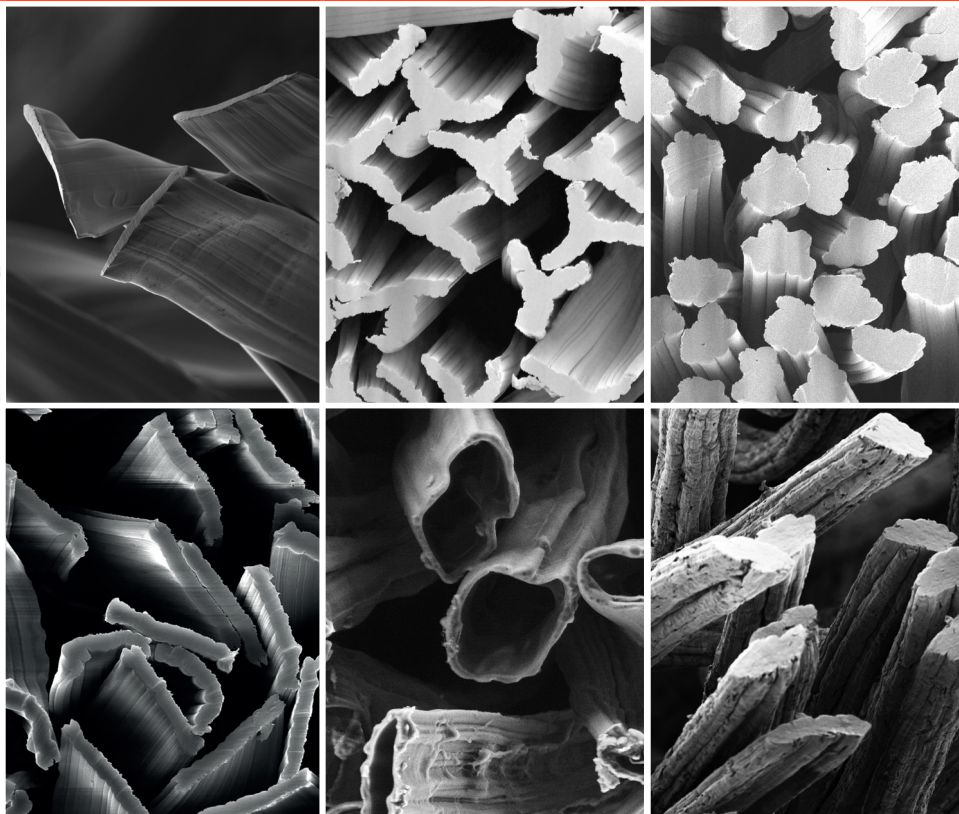
Our company is sole manufacturer of viscose tow for flock and stretchbreak in Europe as well as the leading manufacturer of short cut fibres for the paper industry. The production process allows a wide range of spun-dyed colours.



Standard Fibre Production

The company produces a wide range of high quality standard fibres and is a key partner for the European textile and non-wovens industries. Kelheim's processes exceed the requirements of all relevant European environmental standards.

Viscose Fibres with Unique Properties



Viscose fibres produced in Kelheim share these fundamental properties:

- Physiological neutrality, skin-friendliness
- Hydrophilicity, perfect moisture management
- Restrict growth of micro organisms
- Mechanical, chemical and thermal stability; the fibres do not melt
- Chemical reactivity (dyeability, processability, adaptability)
- Special visual appearance and haptics: soft, flowing, brilliant colours
- Good modifiability
- Creation of hydrogen bonds
- Good dispersibility

Tailor-made Solutions for Specific Markets

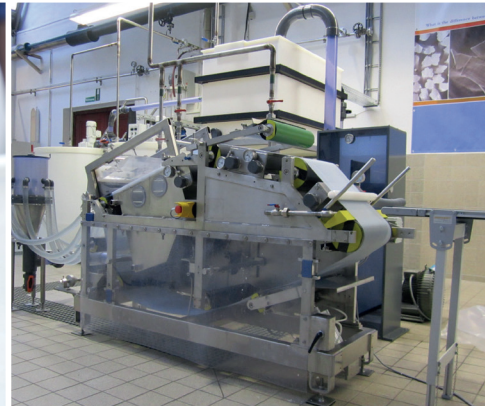
- Hygiene, personal care and medical products
- Speciality papers
 - › filters
 - › cigarette papers
 - › battery separators
 - › security papers
 - › wallpapers
- Clothing and technical textiles
- Technical nonwovens
- Carbon fibres
- Household articles
- Composites



Room for Innovation: Pilot Plants for Trial Production

To offer our customers innovative and tailor-made fibres, Kelheim Fibres provides inhouse pilot plants for fibre, textile and paper production. Our customers can carry out trial work to develop unique fibres perfectly matched to their product's prime requirements without needing to block their commercial lines.

Kelheim Fibres invites customers to make full use of the possibilities the technical centre offers and to explore the benefits speciality viscose fibres deliver in their new products.

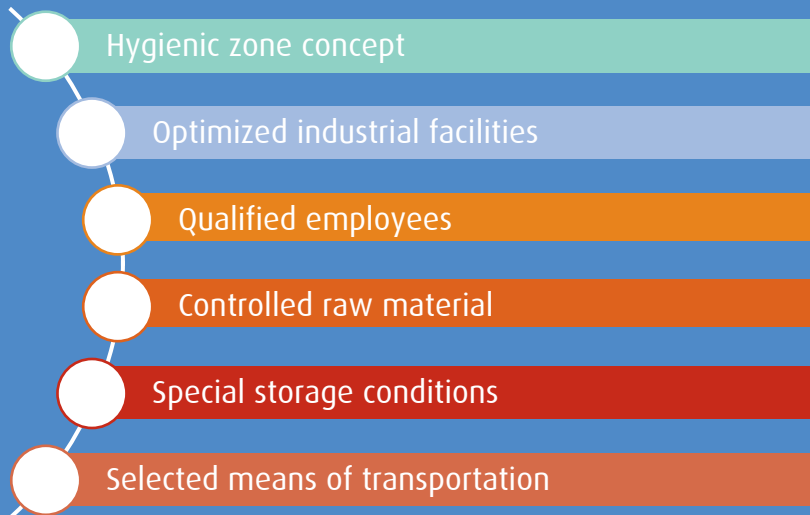


Natural Performance

Our products consist of 100 % cellulose, do not contain any artificial cellulose derivatives, and are manufactured from sustainably sourced woodpulp from FSC®-certified or PEFC™-certified forests. We use only eco-friendly and biodegradable cellulose and no oil based raw materials. The wood used for the production of pulp originates from efficiently managed plantations, where neither the usage of fertilisers, pesticides nor the genetic modification of plants is permitted. The management of water consumption in our processes and efficient waste water treatment are further important measures in maintaining the sustainability of our processes.

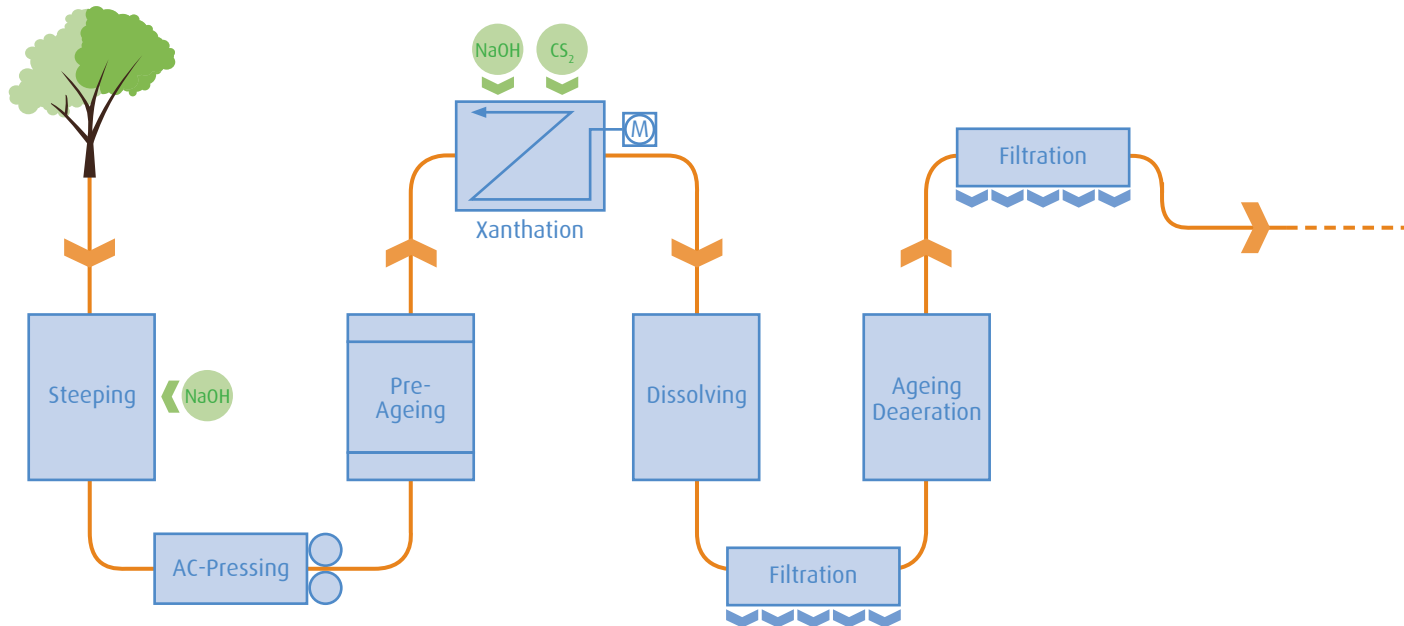


Hygiene Fibres: A Unique Production Concept



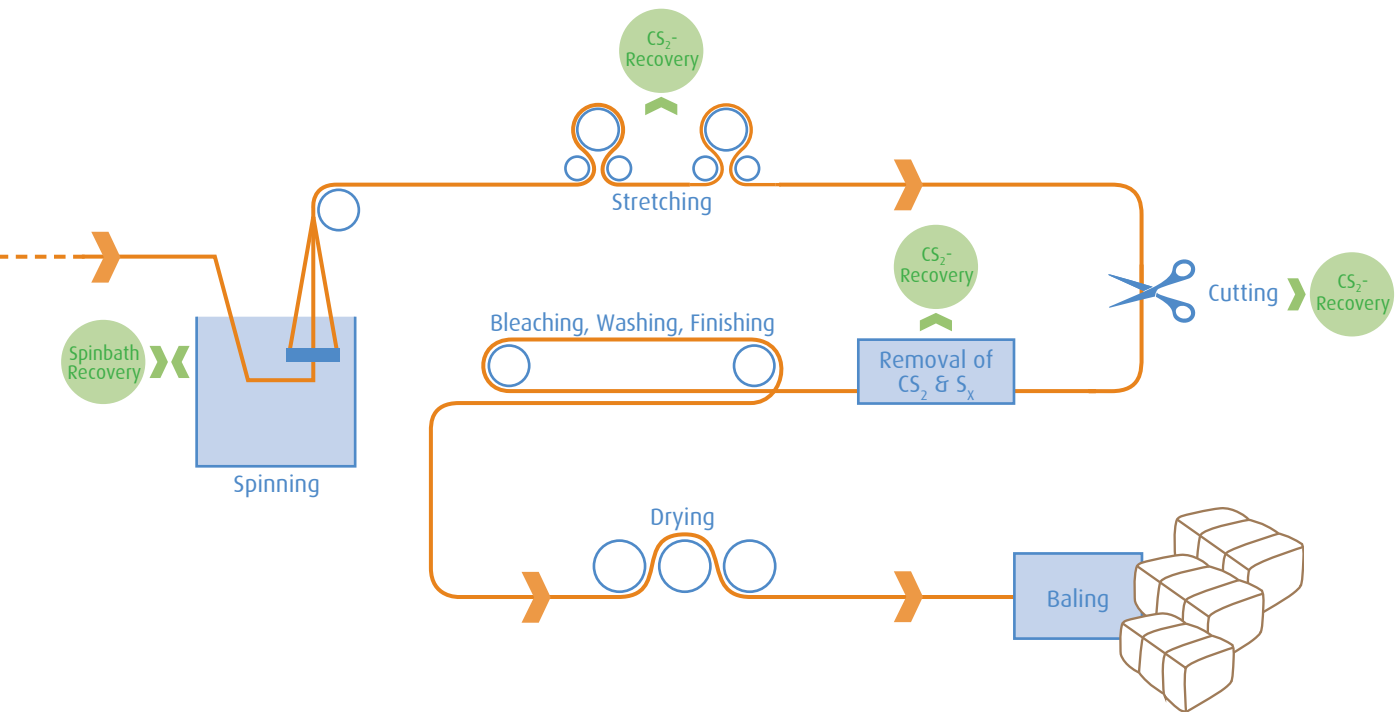
Kelheim Fibres has implemented a unique concept for the production of hygiene fibres to ensure that these fibres meet the standards required by our customers. The production processes, equipment and infrastructure are divided into three Hygiene Zones to ensure that such fibres are produced to the highest standards. Operatives working in these zones are specially trained in the requirements on the fibres and in the correct use of personal hygiene protection equipment. The hygiene concept extends to the storage and transport of hygiene products: the fibres are stored in discrete, specially monitored areas and transport equipment undergoes thorough checks before it is loaded.

It Starts with a Tree: The Viscose Fibre Production Process



More than 100 years ago, chemical engineers found a way to extract cellulose from wood and transform it into a new kind of fibre: viscose. The cellulose used at Kelheim Fibres

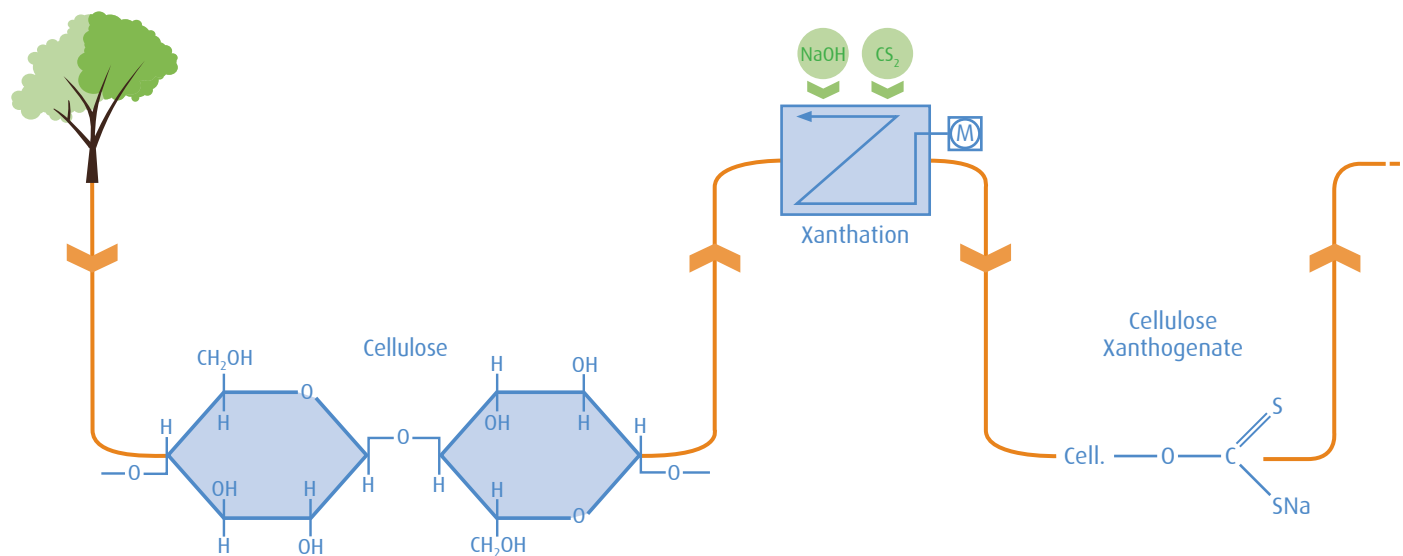
is extracted from certified wood pulp, which is dissolved as part of the process. Since cellulose itself does not dissolve in water, it must be chemically treated first.



In the next step the treated cellulose is dissolved and forms an orange-coloured, honey-like liquid. This liquid is pumped through fine holes in an extrusion jet into an acid bath. In contact with acid, the dissolved cellulose regenerates and

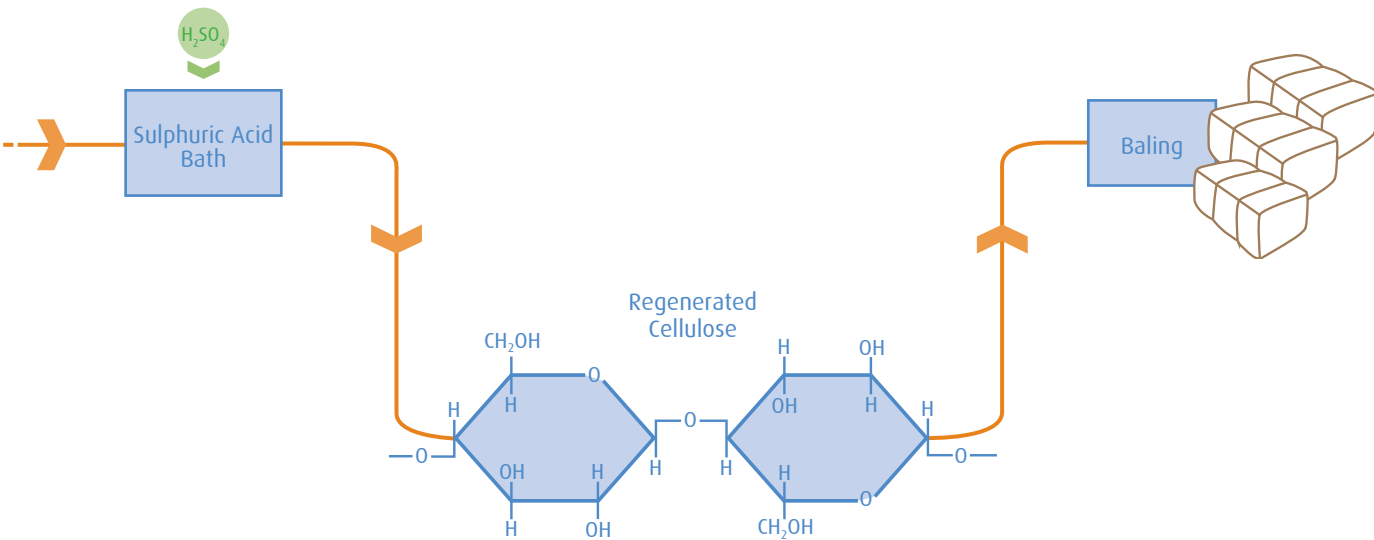
fibres are formed. At this point, key modifications such as changing the shape and size of the cross section or incorporating additives can be made.

The Chemical Journey of our Cellulose



To enable the dissolution of the cellulose, it must be chemically treated.

Treating it with carbon disulphide (CS_2) and sodium hydroxide (NaOH) results in the formation of cellulose xanthogenate.



This highly viscous solution is extruded into a bath of sulphuric acid (H_2SO_4) and regenerates into cellulose – the viscose fibres.

After washing, bleaching and finishing, the regenerated cellulose fibres are ready for baling.

Investing in the Future

Kelheim Fibres operates responsibly in the most strictly regulated environment in the world and is required to report the level of investments in environmental projects to the German Ministry of the Environment. Since 1999 €210 million have been invested in the Kelheim site and of this 23% have been invested in projects aimed at improving site environmental performance. Kelheim Fibres GmbH will continue to invest to ensure worker safety, sustainability in production and raw material efficiency to secure the future viability of the plant.

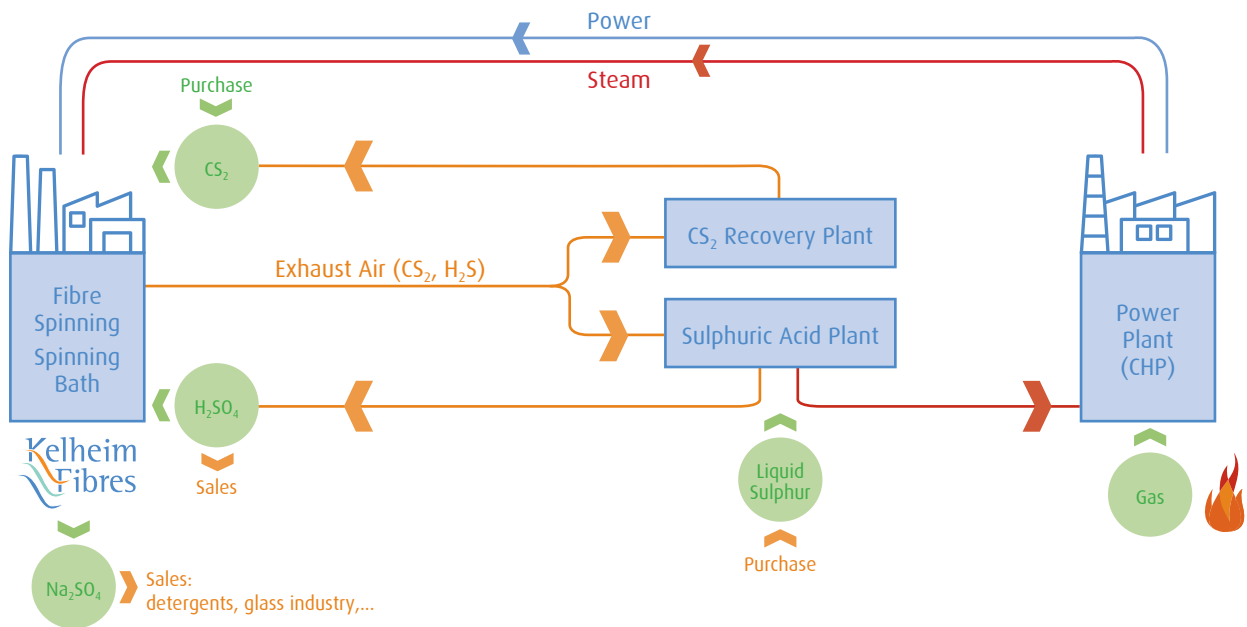


Keeping an Eye on the Environment

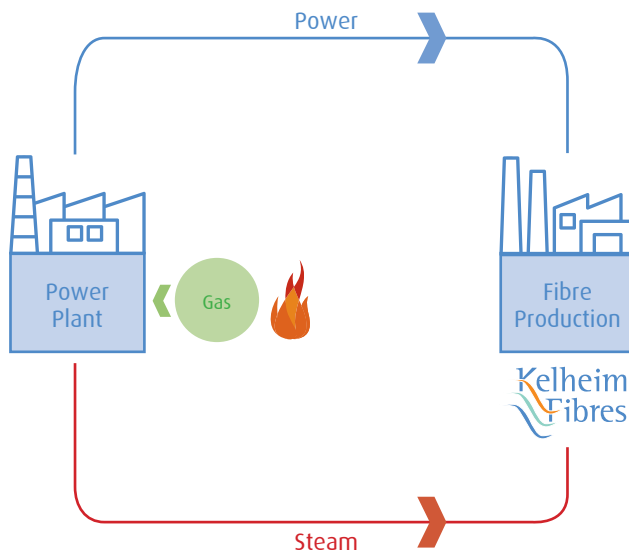


The protection of the environment is an integral part of our company policy. Years ago, the company paved the way for an environmentally compatible management of its production processes. By continuous optimisation of our technologies we are able to minimise the amount of chemicals used in the production process and increase the levels of recovery and reuse from waste water and exhaust air. Biological waste water treatment and flue gas cleaning contribute towards keeping both water and air discharges clean.

Sustainability in Production: Reducing Emissions for Clean Air



Environmentally-friendly Power Generation



Kelheim Fibres' sustainable production process allows us to preserve raw material and to reduce emissions.

Additionally, out of the resulting by-products during our manufacturing process, other products for other industries are generated.

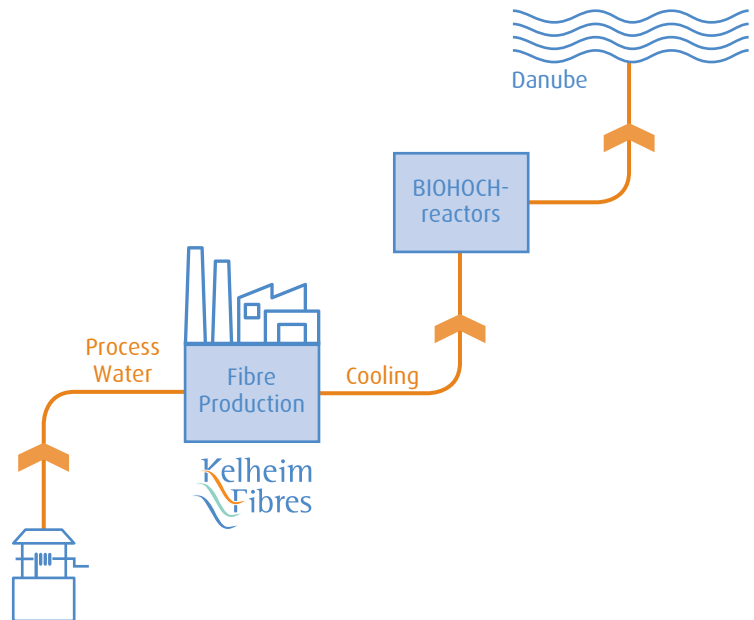
Our power plant runs on eco-friendly natural gas. It follows the principle of cogeneration of heat and power: After using the steam for the generation of electricity, the residual thermal energy (low pressure steam) is put into our processes.

By the multiple-shift usage of energy, we achieve an efficiency of more than 90 % of primary energy – which is far better than that of a conventional power plant.

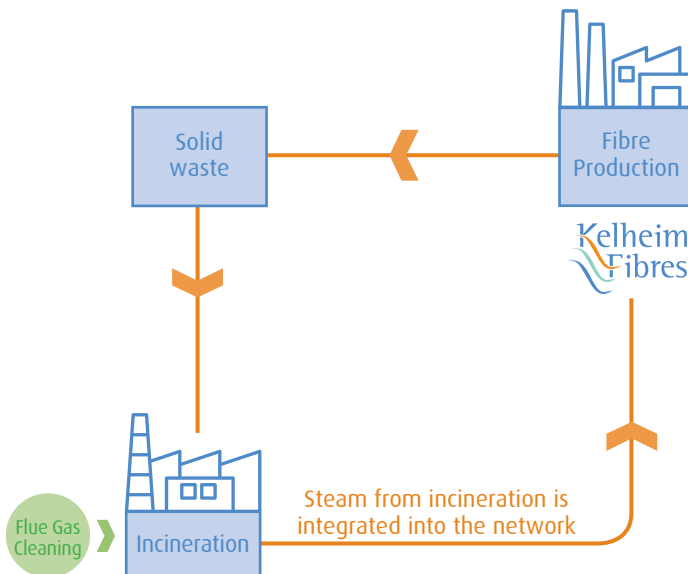
Making Waves with our Water Purification Technology

Three BIOHOCH-reactors clarify our process water biologically before it is returned to the river.

The patented biological waste water purification technology was developed in Kelheim: It is efficient, space- and energy-saving.



Minimizing Greenhouse Gases through Waste Recycling



In our incineration plant we can make use of the organic solid waste which we accumulate in our production processes.

The heat from the combustion processes is incorporated into the steam network. Thereby, natural gas can be saved and this plant also makes an important contribution to the reduction of greenhouse gases.



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