

Working towards a sustainable future

norafin.com





Green up your life

Norafin has a long history of developing nonwovens that are used in a wide variety of applications. In that context, sustainability is a very high priority for us. We work every day to further reduce our ecological footprint. And to make life a little more sustainable.

Step by step towards a more sustainable future

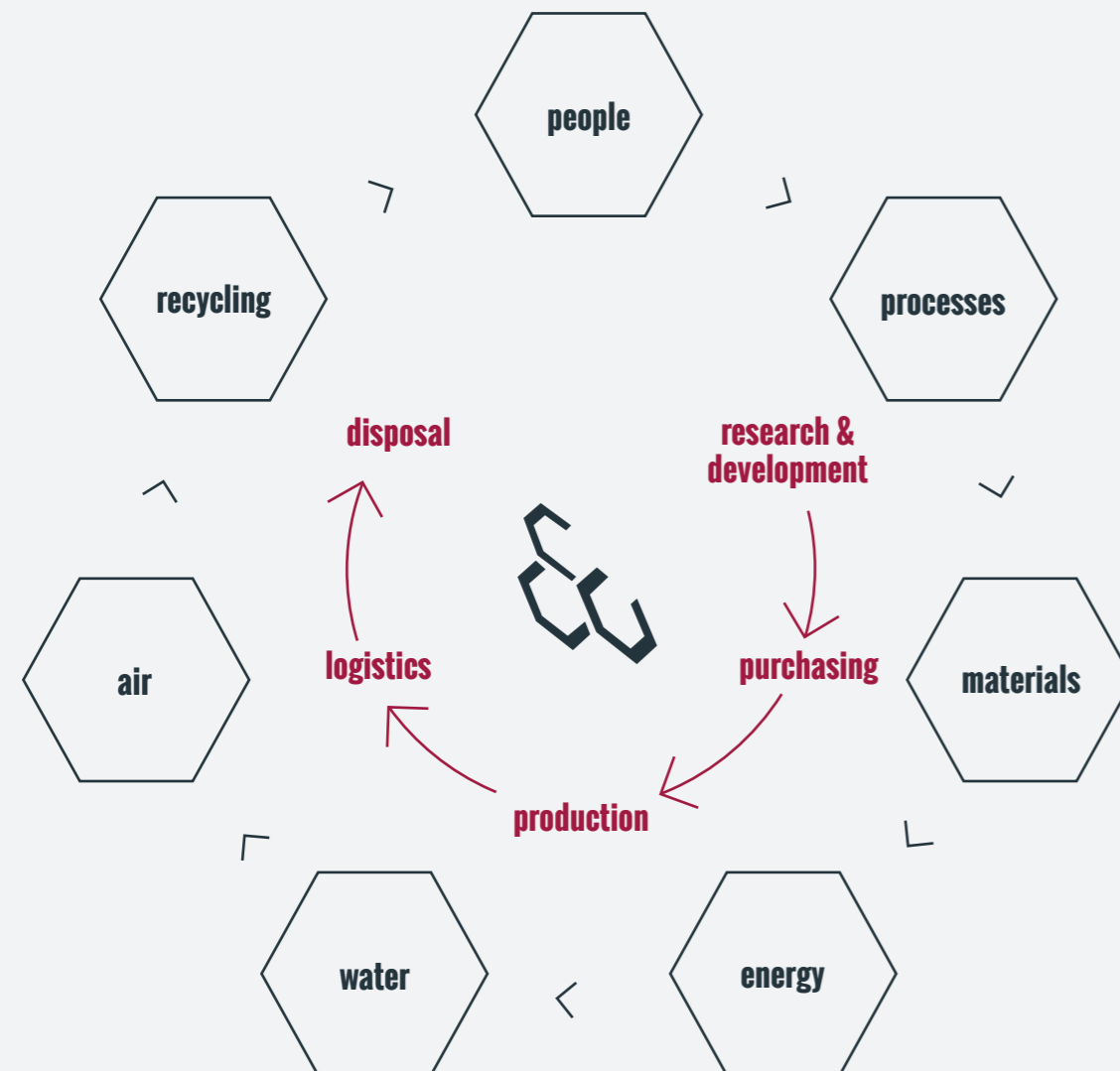
Responsibility, quality and reliability – these are the most important values of our corporate philosophy. Therefore, our products' and processes' sustainability plays a major role for Norafin. Taking responsibility for people and the environment in order to be able to positively influence the future, we pursue this goal every single day. By committing ourselves to health and environmental protection, social responsibility, compliance, occupational safety, human rights and labor standards.



Responsible along the value chain

We want to minimize our ecological footprint by continuously improving our processes and making them more efficient. From development to disposal.

Our measures are focused on seven areas: **water, air, recycling, energy, materials, processes and above all, people.**



Responsible procurement

Long term supplier relationships are particularly important to us. We expect our suppliers to provide excellent quality and service, this includes traceable and sustainable sourcing. Additionally, we expect them to ensure appropriate labelling that gives information about the origin and manufacture of the raw materials and to refrain from animal testing.

When buying our products, you can be certain that we procure our raw materials in accordance with our ecological and social values.



Products from renewable resources

During production, it is very important that we adhere to strict guidelines in the handling of these raw materials. Our research and development department works daily on developing new high-quality nonwovens by using renewable and biodegradable raw materials. This has enabled us, for example, to produce nonwovens from flax fibers on a commercial scale by spunlacing and needlepunch technology. Due to their excellent properties, these nonwovens are used, for example, as composite materials or for interior decoration.

The nonwoven solutions, which are based on viscose, flax, LENZING™ lyocell and PLA fibers, are mostly certified according to STANDARD 100 by OEKO-TEX® (16.0.90034 HOHENSTEIN HTTI) and labelled accordingly. We also process viscose from

sustainably managed forests, which are labelled in accordance with the FSC® regulations for sustainable forest management.

Under our two brands Norafin ECOLINE® and Extra Organic® we offer products based on sustainable and recycled fibers. Among others, they include flax wallpapers and sound absorbers made from Extra Organic® flax fibers as well as nonwovens for diverse applications, such as face masks or wipes, which are part of our brand Norafin ECOLINE®.

Norafin  ECOLINE

 EXTRA
ORGANIC
FLAX WALLPAPERS



Das Zeichen für
verantwortungsvolle
Waldwirtschaft

Using energy efficiently

At our two sites in the German Ore Mountains and in North Carolina, USA, we are continuously working to improve our technologies in order to reduce our ecological footprint while maintaining the highest quality. Norafin has been operating a certified energy management system according to DIN EN ISO 50001 since 2014, and it is our goal to use energy consciously and efficiently in the manufacturing of our products.

We use performance indicators (EnPI) to identify potential savings as well as to plan and implement measures to increase energy efficiency. Of course, we operate heat recovery systems on our production lines and engage in continuous recipe optimization. We pay particular attention to the ongoing refinement of our production processes as well as other energetic optimization measures. This also includes the replacement of conventional energy sources with renewable alternatives.

A butterfly with dark wings and white spots is perched on a white flower. The background is a soft-focus image of green foliage.

Keeping air clean

As an environmentally conscious company, we see it as our duty to keep the environmental impact of our production processes as low as possible. Our production facilities, the thermal treatment (thermofixing) and the textile finishing plant comply with the requirements of the Federal Immission Control Ordinance (4th BImSchV). We attach great importance to keeping emissions of unwanted substances in our exhaust gas as low as possible. Unwanted components are removed by exhaust gas scrubbers and the exhaust gas is released into the environment in a purified state. We work closely with the district's environmental authority and an accredited test laboratory in order to continuously optimize the process of waste gas purification.

Reuse and treatment of water

During hydroentanglement, the substances contained in the fibers (e.g. avivage agents) are rinsed and filtered out of the process water in a multi-stage filtration process. Within our circulation system, the treated water almost reaches tap water quality before it is returned to the hydroentanglement process.

We only use water treatment agents approved for drinking water treatment. These are eliminated from the water during the filtration process. Depending on the product range, up to 90 % of the process water used is treated and returned to the hydroentanglement process. By treating our process water, we can reduce the consumption of drinking water enormously.

Norafin's waste water is subject to regular checks by our internal laboratory and by the responsible authorities. Waste water is registered by volume, partially treated and filtered and discharged into the public sewerage system in a controlled manner.

Recycling of production waste

Wherever feasible, by-products arising in the manufacturing process, such as start-up material and edge strips, are fed into a second utilisation channel. In the spirit of sustainability, it is our aim to waste as little secondary materials as possible. For example, we use a special tearing process to turn by-products into recycled fibers, which can be used for selected products in compliance with quality requirements.

As we strive to create an ideal recycling process in a cooperative and sustainable manner, certain by-products are bought up by fiber suppliers for fiber recovery.

Furthermore, we sell remnants which are suitable for handicraft as well as house and garden work in our factory outlet.



People at the center

People are a company's most important resource. Every day they contribute to the economic success with their performance and commitment. That's why we at Norafin value the feedback of our colleagues. For this reason, we have introduced a health club where we continuously work on issues that are important to our Norafiners. In cooperation with AOK („Allgemeine Ortskrankenkasse“, a health insurance company) we are working on measures that help our colleagues to maintain and improve their health.

Our corporate culture also focuses on the compatibility of family and career. Organizing this and taking everyone's needs into account is a great challenge. We are a partner of KaFaSax („Karriere und Familie in Sachsen“, career and family in Saxony) – a project at Chemnitz University of Technology, which aims to promote the possibilities of digitalisation and to improve the compatibility of family and career with the help of a network of companies and employees. By actively contributing to this project, we want to help in shaping work-life balance concepts and to implement them in our company.

Small deeds that make a big difference

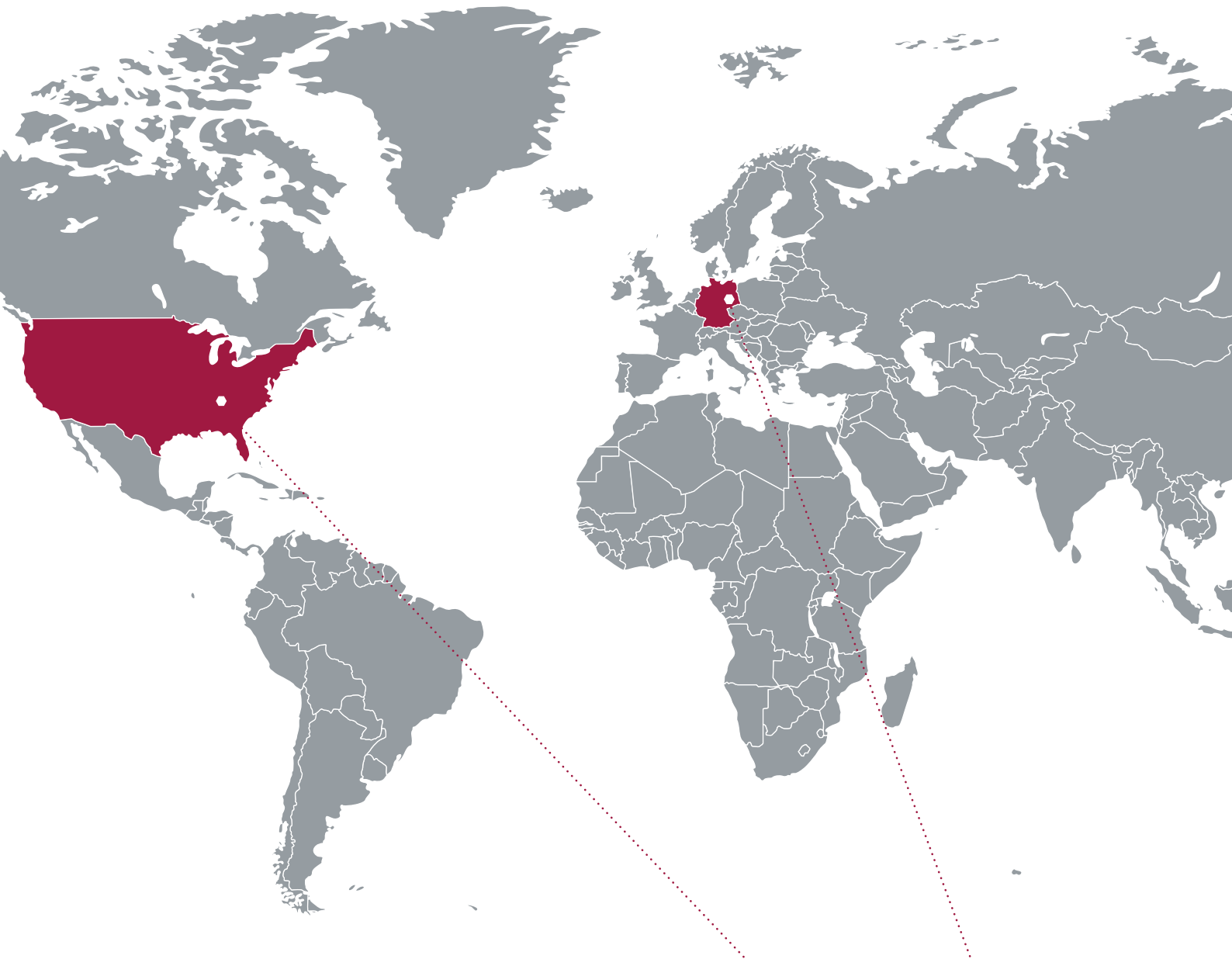
Our employees are individually committed to protecting the environment. For example, they carpool to get to our site, or they do not use their cars at all and come to work by bicycle or on foot.

For us, a paperless office is not only a theoretical concept, it is something we live by in our day-to-day business. We use digital product data sheets, digital inspection plans and electronic invoices to avoid paper wherever possible. For internal communication we use our company intranet to share information and news with our colleagues.



**Together we ensure that
our ecological footprint is
getting smaller.**
Day by day. Step by step.





**Norafin
(Americas) Inc.**

111 School House Road
Mills River, NC 28759 | USA
Phone +1 828 435 7000
info-us@norafin.com

**Norafin Industries
(Germany) GmbH**

Gewerbegebiet Nord 3
09456 Mildenau | Germany
Phone +49 3733 5507 0
info@norafin.com



[norafin.com](https://www.norafin.com)