



Specialty Nonwovens made in the Ore Mountains

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Our Mission Statement

Norafin is an innovative partner that offers durable solutions based on nonwoven technologies to enable a safer life.

We take care of the following business principles.

- Translate customers' needs into functional products and offering comprehensive solutions.
- Turn innovative ideas into high-performance fabrics.
- Look at the entire market and support our customers throughout the product development process, from product idea to product launch.
- Work closely with our customers.
- Make sure that all our customers are part of the entire value-creation chain.

Our Company Policy

Norafin is a supplier of advanced solutions based on nonwovens for specialty technical applications and composites. Our most important areas of application for textiles are protective apparel, special cleaning, wet and dry filter media, medical products and composites.

Our goal is absolute customer satisfaction. Our commitment to quality means to:

- continuously offer products and services that we have assured the customer.
- meet or better exceed agreed expectations in regard to the product or service.
- offer excellent service and delivery reliability.
- actively support our clients in their own development,
- ensure continuous improvements in quality, cost, and effective use of raw materials.
- sensitize our employees to the needs of our customers with clear responsibilities and goals.

We are satisfied when our customers are satisfied. This encompasses:

- The optimization of our processes with the involvement of our employees.
- The work according to the latest technological standards.
- The realization of regular employee training to improve our standards.

Our Process Technologies

Norafin produces high quality specialty nonwovens.

Preparation

The beginning of the respective process technology is the fiber preparation. Norafin processes a wide variety of staple fibers in various lengths and gauges as well as in different surface weights between 15g/m² and 900g/m². These are homogenized via opening and mixing devices and fed as a fiber mat for carding. The carding machines open the fiber tufts through a variety of clothed rolls to single fibers and form a uniform fibrous web. Thereafter, Norafin follows two different processing routes to the finished nonwoven.

Processing

Hydroentangling Process

At this point in time two production lines in Germany and one in the USA are solidifying the carded fibrous web via water jets. By means of high pressure, a homogeneous entangled textile fabric (nonwoven fabric) is created. This nonwoven can be embossed or perforated via different structured drums.

As a result of the wet processing, the solidified material contains a lot of moisture and is then dried in a perforated drum dryer.

Needlepunch Process

An autonomous needle-punch line is processing the fibrous web 'dry'. The fibrous web provided by the carding machine is mechanically strengthened via vertically moving needles. A thermal fixation in the dryer is possible if required.

Subsequent Processing

Norafin has an autonomous enhancement line with a stenter frame.

Depending on the customer's requirement or request the water jet nonwoven or needle-punch nonwoven can be enhanced. Possibilities include printed, laminated, calendered, made/impregnated for oil-repellent or water-repellent. The last step in the process is to slit the product. Here the nonwoven can be customized in length and width. Once the product is tailored to the specifications and safely packed, the shipment is sent to the customer.

Our Management & Values

Code of Conduct

We are aware that our business success depends on our reputation, we as a company promote and implement ethical business practices as well as an honest, conscientious, and integrity-oriented way of working.

In line with our commitment to conduct business honestly and fairly, we select business partners who share our corporate culture, our values and our business practices. Our Code of Conduct sets standards that are necessary for us to do business.

Health & Safety

Our committed employees shape the company and the nature of Norafin. Without them, Norafin would not have such a broad product portfolio, including individualized customer solutions and the necessary flexibility. The health of our employees is our prime asset. Therefore, one of our core tasks is occupational safety and the health of our employees, customers, suppliers and visitors. This includes the prevention of occupational accidents and diseases, the assessment of potential hazards and the creation of a healthy working environment. Our employees should feel comfortable with us and enjoy coming to work. We enable this through team-building measures, health prevention courses and flexible working shifts/home office. A health working group deals with health-promoting work structuring in the company. The well-being of our employees is our main focus. In 2018, Norafin won the prevention award in the textile and fashion sector with its project 100 and is awarded for the comprehension of its employees by the optimization of their own workplaces.

Fire Prevention

Preventive fire protection and early fire detection are the most important instruments in our fire safety regulations. This helps prevent damage to buildings, machines, and equipment as well as to people and the environment. The training of our employees for fire prevention as well as behavior in case of a fire is an important element here. We achieve this through comprehensive fire detection using our fire alarm system. This ensures that in case of a fire, immediate evacuation of the buildings and information to the fire department takes place.

The constant maintenance and control of our plants and machines as well as several evacuation exercises every year are part of our security concept. In addition, we foster a close relationship with the local fire departments and have regular inspections and practical exercises.

Social Commitment

Social commitment does not stop at the company gate. As a medium-sized company and important employer in the region we are aware of our social and civic responsibility not only to our employees, but also to our region. We value a lively exchange with the surrounding cities and communities and are committed to supporting events, institutions and organizations in a multi-faceted way. Norafin also promotes the voluntary commitment of our employees and is thus committed to the association's work in the region. Here we support, for example: events, such as cycling, running events or club celebrations. We also foster relationships with kindergartens and schools in the region and support them with various monetary and non-monetary donations with various projects. As a producer of nonwovens for firefighting protective clothing, we also care and support our local fire departments. Our employees participate in the annual charity run to support the 'Parents' Association of Children with Cancer e.V.' in Chemnitz. Since 2014 we have been an official sponsor of FC Erzgebirge Aue.

We take our social and civic responsibility very seriously and see it as an important cornerstone for our corporate success. This firm conviction manifests itself in the voluntary commitment of our management. Our Managing Director, Mr. André Lang, is active in various bodies promoting the Erzgebirge as a business location. He is the spokesman of the Erzgebirge Economic Advisory Board and always strives to emphasize the economic potential of our region in his function as "Ambassador of the Erzgebirge". In addition, he is involved in the advisory board of Messe Chemnitz and is a member of the supervisory board of FC Erzgebirge Aue. In 2015 because of our commitment to the region, we were awarded the Grand Prize of Small and Medium Enterprises.

Our Quality Claim

It is our claim to produce immaculate, high quality products in order to convey reliability to our customers. Starting from the development of new products to incoming goods up to the final inspection, we ensure that our nonwovens meet the required criteria in every aspect.

Development

We take into account customer requirements during the development phase, test characteristics for process control and final inspections are completed. The preliminary process capability is determined, control and tolerance limits are calculated, and a preliminary product data sheet is calculated.

Incoming Goods

In accordance with specifications, deliveries are subjected to an incoming goods inspection. Special product properties can be tested. The documentation and approval of the goods receipts is managed by software systems.

Process Control

In the SPC software system, test characteristics are planned, and test data is recorded. The test results of the respective production line can be displayed in production cockpits. During process control, a recalculation of tolerances and control limits can take place.

Final Inspection / Assessment of Monitoring Results

The corresponding requirements are also displayed via the SPC software system. This system is used to test, measure, record and analyze test results, as well as provide information and initiate corrective actions.

Traceability

Our IT systems ensure a traceability from the end product to the raw material used. A documented annual check is carried out by the Quality Department.

Statistical Evaluations

Each production batch is marked with a unique batch number. This provides us with certificates for production e. g. analysis and conformity certificates, graphs and special certificates (by external test institutes, microbiological certificates, ...).

Process Flow Chart

A process flow chart describes the processes that exist at Norafin. This includes all process steps from the receipt of raw material goods to the delivery of the finished product. The responsibilities and underlying documents are respectively described therein.

Production Control Plan

Using production control plans, we ensure that the production process for a product runs under controlled conditions and produces faultless goods or products that meet customer requirements. Work is done according to a general production control plan.

Quality Assurance

The properties, condition, quality, and processes are monitored during production by qualified employees of the quality department. Our laboratory team works multiple shifts and independently of production. We have several laboratories for product and process control. These are equipped with extensive measuring technology to carry out textile-physical tests. The measuring technology is regularly calibrated by external service providers and monitored internally. In addition to that internal measuring equipment analysis are carried out. On request, special tests can be carried out by external testing institutes.

The most important product parameters are monitored with inline measuring technology. A visual assessment of the produced web (inline) happens additionally, however this happens with the aid of an evaluation software.

Complaints

Customer complaints and internal quality-related issues are recorded centrally and processed using 8D reports. The goal is to maintain customer satisfaction despite a negative event and to take measures to avoid that error in the future.

Corrective and Preventive Measures

We will implement corrective and preventive actions based on test results, customer feedback or insights that could lead to risks or losses.

Risk Analysis

Risk analysis identify potential risks to people, machines, materials and the environment. To reduce and avoid risks preventive measures are defined and implemented.

Document Management

All relevant documents are recorded and managed in a document management system in the company intranet. This enables every employee to access the relevant documents.

Our Environmental and Energy Policy

We feel responsible for the protection of the environment as well as a responsibility in the usage of resources and energy. The company strives to reduce the burden on the environment. So, we develop products from sustainable sources with the least possible amount of energy used.

Energy Management System

Since 2014, Norafin has operated using a certified energy management system according to DIN EN ISO 50001. It is our goal to use energy consciously and efficiently throughout our production process.

To live up to this obligation we measure and analyze the consumption of all types of energy used and energy input. We define, analyze and document our manufacturing process and develop measures to continuously improve energy efficiency. We provide the necessary resources to achieve our energy goals. To reach these goals, we involve employees at all levels in achieving our energy goals and make our processes and analysis transparent. We seek and acquire energy-efficient products and services while economic criteria are taken into account. We regularly review the measures of our energy policy and adapt it to current conditions and adhere to legal requirements.

Potential savings and measures to increase energy efficiency are planned and implemented with the help of performance indicators (EnPI). The operation of heat recovery systems on our production line is vital and the optimization of continuous recipes are the utmost importance.

We pay special attention to the continuous optimization of our production processes as well as other energetic optimization measures.

Exhaust Fumes

As an environmental conscious company, we see it as our duty to keep the environmental impact of our production as low as possible. Our production facilities, the thermal aftertreatment (heat setting) and the textile finishing plant meet the requirements of the Federal Immission Control Ordinance (4th BImSchV). We attach great importance to keeping emissions of unwanted substances in the exhaust gas as low as possible in our production processes. Exhaust gas scrubbers remove unwanted components and purify

the exhaust gas which is then released into the environment. We work closely with the county environmental authority and an accredited testing laboratory to continuously optimize the process of exhaust gas purification.

Water

Water Process

During wet solidification, the substances contained in the fibers (e.g., textile lubricants) are rinsed and filtered out of the water through a multi-stage filtration process.

The water treatment takes place exclusively with the water treatment agents approved for drinking water. Water treatment agents are eliminated from the water during the filtration process. On a range-based criteria up to 90% of the process water used is purified and returned to the solidification process.

Waste Water

The waste water is subjected to regular checks by our internal laboratory, as well as by the competent authorities. Waste water produced is quantitatively measured, partially treated, filtered and in a controlled manner returned to the public sewer network.

By-products

In terms of sustainability the goal is to dispose waste of secondary materials as little as possible. These materials are sold to private end customers as well as to commercial customers. To make an optimal recycling process cooperatively sustainable, certain by-products are bought back by fiber suppliers for fiber recovery. In compliance with quality requirements internal by-products are, by means of a special tearing process, processed into recycled fibers and returned to selected products.

Emergency Plans

In order to be prepared for serious accidents and injuries in case of emergency, we have developed emergency plans. These can be viewed on the company intranet for all employees. Emergency plans are also available for energy outages.

Data Protection

In order to give data protection considerable attention, we have appointed an internal data protection commissioner. The protection of data privacy has a high priority to us. All personal data of our employees and customers will be processed with the utmost care and secured through technical and organizational measures, especially state-of-the-art IT safety features and equipment.