

Norafin
materials for life



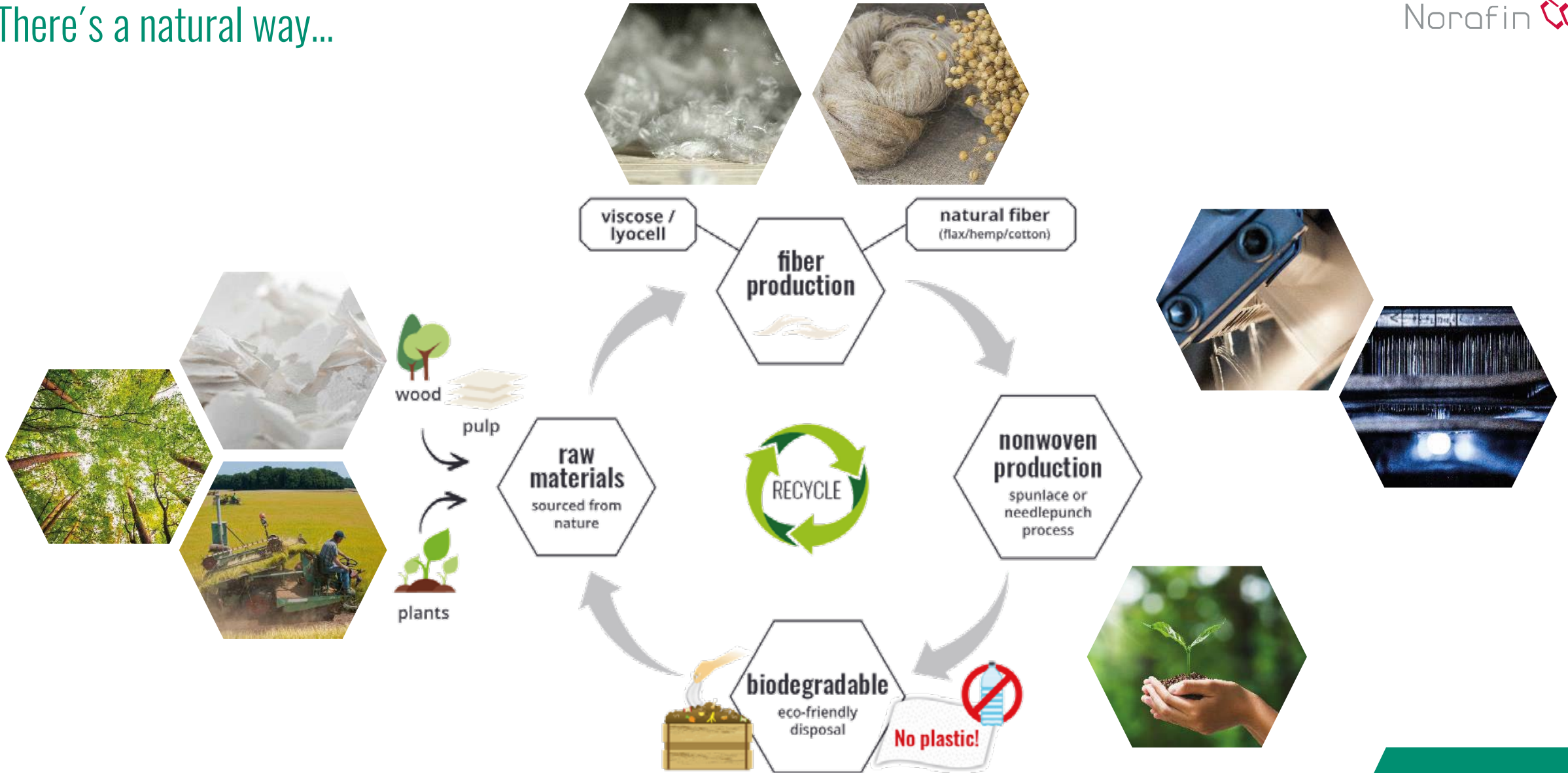
PERFORMANCE LINE

INDUSTRY AND CONSTRUCTION | COSMETICS AND HEALTH

Ecological base layer made of natural nonwovens



There's a natural way...



... with EXTRA ORGANIC® – Green Up Your Life!

The EXTRA ORGANIC® Team has set itself the task of developing sustainable alternatives to traditional products. Ecological, beautiful, functional, and 100% biodegradable.

Areas of application:

Base layer for

- printed wallpaper
- table cloth linen
- interior design



Base layer for printed wallpaper

- Flax nonwoven can be used as an ecological base layer & can be imprinted. Rotary and digital printing are two examples of possible printing technologies for wallpaper or wall coverings.
- With our durable nonwovens, we can offer material for almost any project that needs a base layer.



Naturalness on the table in the form of

- **napkins,**
- **place mats or**
- **table runners with flax nonwovens.**

Thanks to the soft touch and the warm, natural color, linen made of flax fibers are an eye catcher.

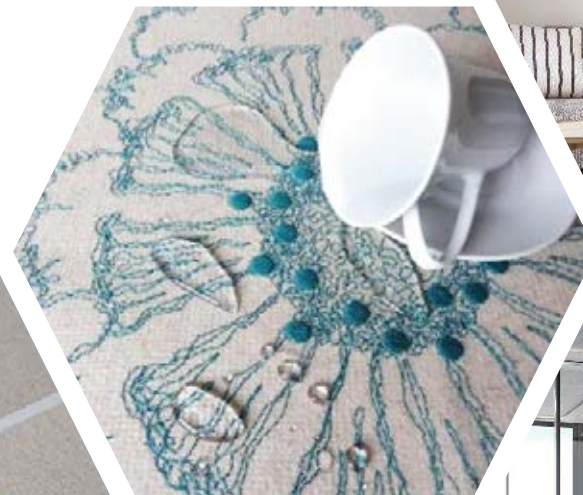
Another advantage and unique feature is the biodegradability of the flax material after use.



In terms of interior design we offer our customers a diverse spectrum of possibilities:

Besides different types of flax wallpaper – plain-colored or embroidered – our sustainable flax nonwovens can be applied as carrier material in different areas:

- wall covering
- ceiling panels
- room dividers
- acoustic panels



Our spunlace technology enables us to produce tear-resistant, durable, and strong nonwovens made from 100% natural fibers. These textiles can be used in many different applications, as reinforcing materials, or as optical surface layer, for example in the areas of:

- interior design
- sports
- marine



Which raw materials do we use for our base layer?

We use a variety of renewable and/or sustainable raw materials.

natural fibers	sustainable fibers
flax	viscose
hemp	lyocell
cotton	polylactide (PLA)
wool	recyclable PET

Norafin ECOLINE® is our product line focused around sustainable fibers.

The additional bio-degradability of our nonwovens is indicated with the label **EXTRA ORGANIC**®.



Please ask for our STANDARD 100 by OEKO-TEX® and our FSC™-certified products!



The mark of responsible forestry
FSC™ C140662

Our product range of ecological base layers

Many manufacturers have been successfully using the nonwovens below for many years – from ultra light, over a strong product to the high-performance article.



Our ecological base layer items – data sheet

	Norafin	Norafin	Norafin	Norafin	Norafin FR	Norafin FR	Norafin
item number	00518.99	00803.99	00805.99	01123.99	02388.99	01784.99	02976.99
composition	65% flax / 35% viscose	100% flax	65% flax / 35% viscose	100% flax	100% flax	65% flax / 35% viscose	100% viscose
weight*	130 g/m ²	100 g/m ²	80 g/m ²	80 g/m ²	120 g/m ²	130 g/m ²	50 g/m ²
thickness*	0.62 mm	0.64 mm	0.7 mm	0.76 mm	0.61 mm	0.62 mm	0.47 mm
structure	flat	flat	structured	structured	flat	flat	flat
finishing/ aftertreatment					flame-retardant	flame-retardant	

* The values have been evaluated on the basis of the test methods according to DIN EN 29073-1/-2/-3/-6.
The values are based on a sample size of 100 cm².

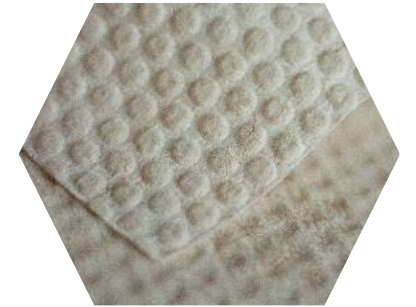
Norafin solutions

Besides the solution-oriented production of nonwovens, Norafin also offers the customized allocation according to your needs.

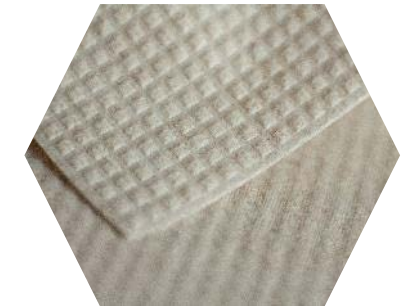
- Flax wallpaper – individual roll packaging from 50 running meters to roll widths up to a dimension of 1.2 meters.
- Customized widths from 100 mm up to 2,000 mm.
- Different aftertreatment options are possible, e.g. flame-retardant or water-repellent.
- Minimum order quantity under 20,000 m² possible.



coarse apertured



Norafin 3D PERFORMANCE®



Norafin 3D PERFORMANCE®

Why are Norafin nonwoves special?

Spunlace nonwovens, especially by using natural fibers, are perfectly suited as base layers.

- Stability in all directions due to the isotropic fiber orientation that comes from our special Norafin process technology.
- No chemicals or binders over the entire process chain – from the field to the nonwoven.
- Different weights (50 - 130 g/m², more variations possible) allow us to find the optimized product, depending on application and requirement.
- Insulating, sound absorbing, and humidity regulating properties support a natural and healthy indoor climate.
- Fibers of European origin.
- Solely natural components and therefore, completely biodegradable.



How to reach us

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As solution-oriented provider of spunlaced and needlepunched nonwovens, we engage in needs for protection, clean air, and sustainability.

facts | 2022

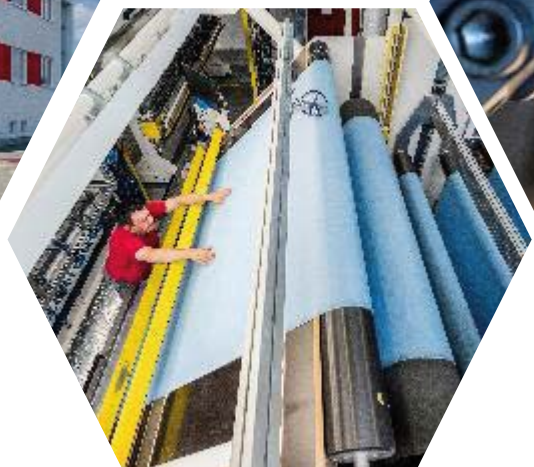
~50 Mio. Euro turnover

230 employees

2 company sites

Mildenau,
Germany

Mills River, USA



- flax is classified as a plant of the maritime climate: the constant change of rain and sun, wind, no late frost and no excessive high temperatures in May and June
- best growing areas: coastal areas of Northern France, Belgium, and in parts of Northern Germany
- The best flax fibers worldwide are exclusively sourced in Western Europe. (Gesamtverband Leinen e.V.)





- flax = short-lived plant, however, blossom can last for several days
- → no additional water necessary



- plants are pulled from the ground, roots and all
- flax is laid out flat on the fields



- the transition between sun, dew and rain along with the help of bacteria and fungi from the soil dissolve stem material surrounding the fibers
- the nutrients that are released from the plants during dew retting are actually reabsorbed by the soil



- turners ensure a uniform ripening process
- once retting is complete, the harvest can be brought in