

PERFORMANCE LINE

Norafin ®
materials for life



**POWERFUL
Materials**



High-performance Products for People and the Environment

We are specialists in durable, sustainable and flexible nonwoven solutions that are successfully used in a variety of ways in everyday life.

From construction in the roof and interior walls, to a high penetration rate of liquids in the building fabric area, as well as sound insulation and ecological design in the rooms, to water storage in the garden area - our technical nonwovens play an important role in positively influencing the well-being in buildings and outdoor areas.

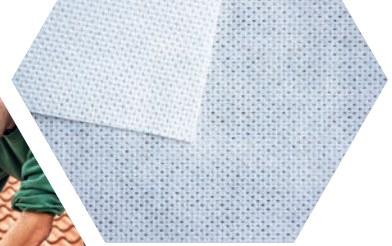
Norafin develops specific, innovative solutions for today and for the future from a variety of raw materials.

Nonwovens in the Building Sector

From the roof to the basement – in the construction sector, it is particularly important to use materials that can withstand a wide range of requirements. We process different synthetic and natural fibers. Depending on the requirements, these are processed into durable and multifunctional nonwovens.

FIELDS OF APPLICATION:

- ✓ flat roof renovation
- ✓ structural waterproofing
- ✓ water-storing and conducting nonwovens for green roofs and green facades, geotextiles
- ✓ impact sound insulation
- ✓ ceiling cladding



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Effective Nonwovens for Waterproofing & Renovation

Equipped with important properties such as temperature and UV light resistance, fire behavior and resistance to driving rain through to diffusion openness, we offer reliable polyester nonwovens for building renovations. Our nonwovens are also very well suited for flat roof waterproofing. Especially when working with liquid plastic, we recommend our hydroentangled nonwovens with a perforated structure. These accelerate the absorption and prevent the formation of bubbles, as outgassing can escape immediately.

- ✓ **weatherproof, breathable, durable**
- ✓ **homogeneous surface structure, very well drapable**
- ✓ **chemical and solvent resistant, long-life**
- ✓ **weights between 30 g/m² and 1.000 g/m²**

PRODUCTS

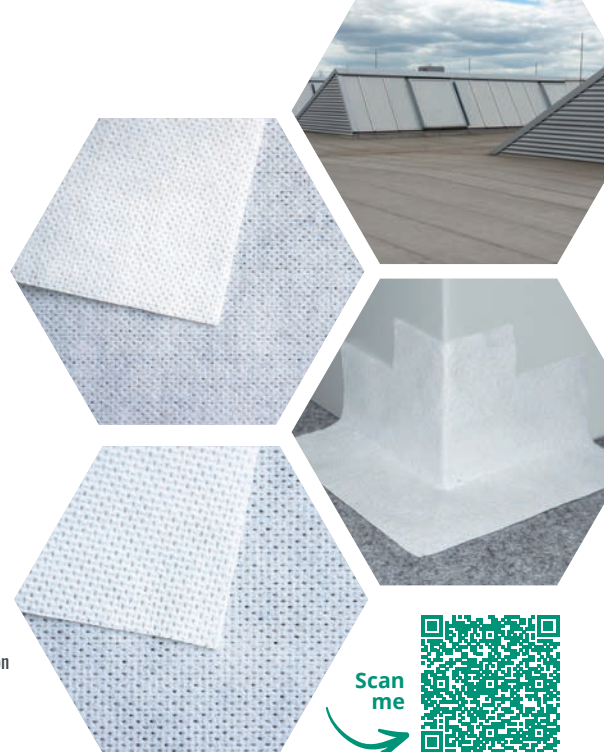
Our nonwovens listed here have been developed with ETAG005 in mind. They meet the minimum shelf life of 60 years.

100 % POLYESTER	PET110 CA 01696.99	PET110 FA 02023.99	PET160 FA 02251.99
Thickness (mm)	1.1 (+/-0.15)	1.1 (+/-0.15)	1.3 (+/-0.15)
Structur	coarse apertured	fine apertured	fine apertured
Bending strength MD (N/5cm)	>320	>310	>400
Bending strength CD (N/5cm)	>180	>180	>250
Elongation MD/CD (%)	70 / 110	100 / 70	60 / 80

- ✓ alkali resistance
- ✓ very fast penetration with a strong hold
- ✓ optimal for compensating for unevenness

- ✓ alkali resistance
- ✓ strength in all directions
- ✓ optimized for particularly smooth surfaces

- ✓ particularly appropriated for flat-roofing application using PU & PMMA liquid plastics in flat areas and corners



Sustainable Nonwovens for Interior Concepts

Norafin is a pioneer in the successful processing of flax fibers into a tear-resistant, durable and 100% ecological nonwoven without binders. Our flax nonwoven can be used as base material for a wide variety of applications in interior design concepts, preferably as wallpaper, which can also be printed.

FIELDS OF APPLICATION:

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



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The mark of
responsible forestry
FSC™ C140662

Base Material for Printed Wallpaper










Flax nonwovens can be used as ecological base material for the printing (e.g. rotary or digital printing) of wallpapers or wallcoverings.

With our durable nonwovens, we have the right starting material for every application.

- ✓ more tear-resistant in comparison to conventional wallpaper
- ✓ supports a good and natural indoor climate
- ✓ 100% biodegradable
- ✓ humidity regulating
- ✓ sound absorbing and breathable
- ✓ an even surface structure
- ✓ UV resistant and free of chemicals



PRODUCTS

ITEM	SL 130 65FLX/35VIS FL/1L C 00518.99	SL 100 FLX FL/1L C 00803.99	SL 80 65FLX/35VIS CA/1L C 00805.99	SL 80 FLX CA/1L C 01123.99	SL 120 FLX FL/1L C FR 02388.99	SL 130 65FLX/35VIS FL/1L C FR 01784.99	SL 50 VIS FL 02976.99
							
Technology	Hydro-entangled	Hydro-entangled	Hydro-entangled	Hydro-entangled	Hydro-entangled	Hydro-entangled	Hydro-entangled
Blend	65% Flax 35% Viscose	100% Flax	65% Flax 35% Viscose	100% Flax	100% Flax	65% Flax 35% Viscose	100% Viscose
Weight* (g/m ²)	130	100	80	80	120	130	50
Structur	flat	flat	structured	structured	flat	flat	flat
Thickness*	0.62 mm	0.64	0.7	0.76	0.61	0.62	0.47
Aftertreatment	-	-	-	-	flame retardant	flame retardent	-

* 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.

Nonwovens for a Natural Ecosystem

"Nature Based Solutions", e.g. the greening of buildings are "natural air-conditioning systems" that increase the well-being in urban areas and counteract climate change. Hydroentangled nonwovens are particularly suitable due to their properties for plant watering on roofs or building walls:

- ✓ durable materials (> 60 years)
- ✓ absorbency for leaks over 300%
- ✓ increases retention capacity of water on roofs (retention roofs)
- ✓ water transport over 15cm height difference (wick effect)
- ✓ filtering effect for coarse particles



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Absorbent EVEN IN THE SOIL

- residue-free decomposable; completely recyclable
- can absorb 8-times as much water as their own weight (3-8 liters of water / sqm) and release it to plants step by step.



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Technical Nonwovens for Composites

When developing nonwovens for composite structures, our focus is on performance and sustainability. Whether for roller coatings, cable applications, body armor, or renewable energy sources, our high-quality nonwovens are increasingly used for a wide range of applications.

- ✓ **light weight**
- ✓ **isotropic fiber orientation**
- ✓ **tear-resistant and durable**
- ✓ **homogeneous surface**

FIELDS OF APPLICATION:

- ✓ reinforcing structures for various composite manufacturing processes
- ✓ surface finishing of composites
- ✓ body parts for water and motor sports vehicles

Finishing Options

Short rolls converting

- ✓ Individual roll converting; Lengths of at least 25 running meters (max. diameter 120 cm)
- ✓ Individual width assembly from at least 100 mm to 2,000 mm infinitely variable

Aftertreatment options:

- ✓ flame retardent
- ✓ oil and water repellend
- ✓ printing and coating
- ✓ laminating and calendering

Minimum order quantity under 20,000 m² possible.

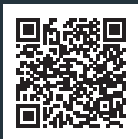
Packaging in foil bags and cartons on pallet.



Your contact for high performance nonwoven solutions.



PER B+I 03/2023



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