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**Flax Window Shades  
Surfboard**





## FLAX WINDOW SHADES



Natural fibres used in the manufacturing of technical textiles and nonwovens address the needs of our times. Environmental awareness is growing manifold within various sectors and the advantages of the natural fibers characteristics are becoming more prominent. Depending on the end use, producers of technical textiles and nonwovens have started to care about biodegradable or recyclable materials to provide their customers with what they require.

Norafin, a manufacturer of innovative technical nonwovens and composites, has ventured into flax fiber processing and introduced the material into its hydroentangling process. Thanks to the UV resistance of the flax fibers, their positive eco-balance as well as their natural aspect, flax fibers can be used in the home furnishing market, as for example as window shades. Together with its fiber partner Van Robaeys Frères, Norafin processed flax fibers on their lines.

### A nonwoven textile for window shades based on flax favouring infrared reflection

This product, which is designed for the solar protection market (manufacture of window shades based on nonwovens) and decoration (panel glides), is available in all colourings and offer several advantages such as:

- Reduction in air conditioning energy consumption due to its blocking of infrared and ultraviolet without raising the lighting consumption.
- An improvement in the life-cycle analysis of the product thanks to bio sourcing of the raw materials and flax in accord with the current environmental challenges (environmental forum, REACH regulations,...).



These window shades based on nonwovens have lately been installed in various business establishments within the private sector, but also with administrative authorities in France. The users' reaction was very positive. Due to a very good cooling effect of the material, nice aesthetics, good luminosity and a very interesting acoustic effect – the material absorbs noises very well - the product was very much appreciated.

When a material needs to be durable, robust and should have high stiffness, it is also possible to make use of the natural characteristics in the flax fiber. Thus, nonwovens made of flax can be used in a variety of composite structures offering a great deal of advantages for various applications thanks to the nonwovens texture and properties such as smooth surface and wood-like optical appearance: **sports and leisure activities, use in the field of wind energy, application in construction, packaging and boat building.**

Technical nonwovens made of natural fibers offer a great solution for market players in the composite industry that aim at meeting the requirements for sustainable product options.

## FLAX REINFORCEMENT NONWOVEN FOR FUN BOARDS COMPOSITES

### Excellent Material Characteristics

- Light-weight
- Tear-resistant and durable product features
- Homogeneous texture
- Flexible, conformable
- Rapid wet-out, easy-to-impregnate
- Consistent MD:CD properties
- Multi-axial fiber orientation

### Performing Product Options

- Increasing safety and material strength: compression resistance, anti-cracks effect, resistance to shock
- Providing lightness
- Excellent optical appearance and surface finish
- Intermediate volume fraction reinforcement

### Utilizations/Processes

- Reinforcement material
- Surface finishing layer
- Infusion, Vacuum moulding, RTM

[www.Technische-Spezialtextilien.de](http://www.Technische-Spezialtextilien.de)  
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