

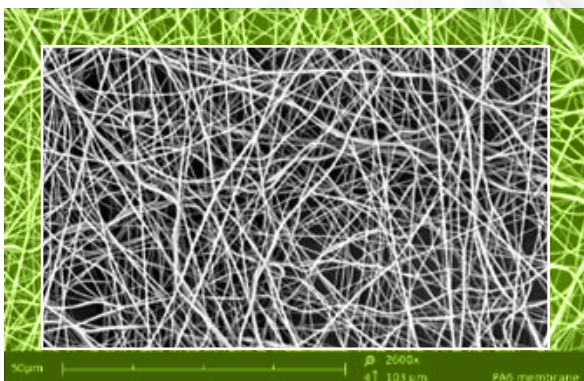
PA6

NnF MBRANE® – PA6 (Nylon 6)

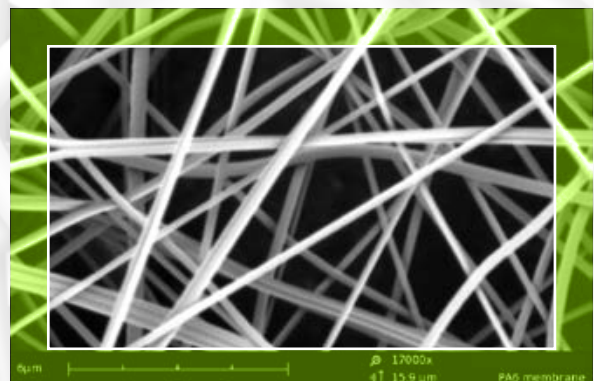
Product description

NnF MBRANE® – PA6 (Nylon 6) is a novel kind of nanofibrous membrane produced by industrial production technology operated by **PARDAM, s.r.o.** in the Czech Republic. Nanofibrous layer is deposited on the top of a supporting substrate with air permeating structure made of virtually any material on customers' request – woven/nonwoven textiles, filtration paper... or without support. Combination of the grammage of nanofibrous layer and a type of the supporting substrate enables manufacturing of filtration membranes with different permeability and filtration efficiency, in accordance with customers' demand! The product combines extraordinary properties of nanofiber structure and morphology, e.g. small pores with uniform size distribution, excellent filtration performance and high permeability, with present mechanical properties of supporting material. **NnF MBRANE® – PA6 (Nylon 6)** has a very broad application range such as air, water and liquid filtration, biomedical and textile application. For its lightness and breathable nature PA 6 nanofibers are useful for medical applications as a support or barrier material.

Images



SEM image, magnification: 2600x



SEM image, magnification: 17000x

Physical properties

■ Physical form and structure



PA6 NnF layer on PES support



thin PA6 NnF layer on PP support

Material characteristics

fiber structure	randomly oriented
typical fiber diameter	200-800 nm
fiber length	continuous
physical form	thin layer
grammage	0,5-20 g/m²
air permeability	40-500 l/min/dm²
width of the roll	max. 0,8 m
maximum length of the roll	2000 m
melt point	220 °C
vicat softening point	204 °C

Breathable | High flux | Chemically stable with the exception of acids | Biodegradability | Peel-ability – it is possible to use nanofibrous layer without support material

Type of the supporting substrate and grammage of nanofibrous layer determine permeability and filtration efficiency of the membrane. Those parameters can be modified in accordance with customers' demands.

Additional post-treatment available:
Lamination of nanofibrous membranes (double / triple sandwich material) | Post treatment with plasma spray (hydrophobic / hydrophilic surface treatment) | Doping with functionalized particles (Ag, ZnO, TiO₂... antibacterial function).

Please feel free to contact us for more information.

Applications

Air filtration (HVAC) | Liquid/water filtration | Smart textiles/clothing | Separation processes | Life science | Biomedical applications | Biomedicine carriers

Important notice:

Production of composite PA6/PUR membranes in one single layer is also possible. Combination of these materials enables to reach unique mechanical and filtration properties of the membrane. Feel free to contact us to obtain samples for evaluation.

Important notice for purchaser

All statements, technical information and recommendations contained in this document are based on tests conducted by PARDAM's R&D team and its approved equipment and are believed to be reliable. However the accuracy or completeness of the tests is not guaranteed. THE FOLLOWING IS MADE IN LIEU OF ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. The manufacturer's and seller's only obligation will be to replace the quantity of the product proved to be defective. Neither the seller nor the manufacturer will be liable for any injury, loss or damage, direct, indirect or consequential, arising out of the use of the product. Before using, the user must determine the suitability of the product for their intended use.



Developed by
 **Pardam**
www.pardam.cz

Produced by
 **N4F** Technology
www.nano4fiberstechnology.com

Distributed by
 **N4F** Group
www.nano4fibersgroup.com

Address | Jahnova 8, Zelené Předměstí, 530 02 Pardubice, Czech Republic