

## Product Data Sheet

(MATERIÁLOVÝ LIST)

### NnF MBRANE® - BreaSAFE PA6<sub>ag</sub>

Nanofiber based membrane designed for designing products (Community Face Masks, Neck Guiters or Filtrres for Pocket Face Masks) which may be used for increased protection against COVID-19. NnF MBRANE is made by unique Centrifugal Spinning Technology in the Czech Republic. It is made of PA6 polymer which is doped by antimicrobial active silver Nanosilver® which is physically embedded into the fiber structure and efficiently eliminates bioorganisms collected on the membrane. Fiber diameter is between 150-500nm and thanks to its unique structure creates great barrier for capturing particles and aerosols while maintaining a great permeability. Filtration efficiency of the NnF MBRANE is very high, however efficiency of the final product made of this membrane very much depends on the final design of the product and on the sealing line with the face of the user (the better the sealing line is, the better the efficiency of the mask is). NnF MBRANE is deposited on supporting substrate (spun bond 35-60gsm) and can be covered by protective substrate (spun bond 17-50gsm), depending on desired properties of the final product. NnF MBRANE can be than designed and tuned (colours and basic weights) in accordance with customers expectations and design of the intended product. Layers create sandwich structure without any lamination, adhesion of layers is acceptable and enables further processing by various technologies. Unique structure of the membrane enables its disinfection or washing without looding its filtration efficiency which makes this membrane unique comparing to other standard filtration membranes.

### MATERIAL PARAMETERS

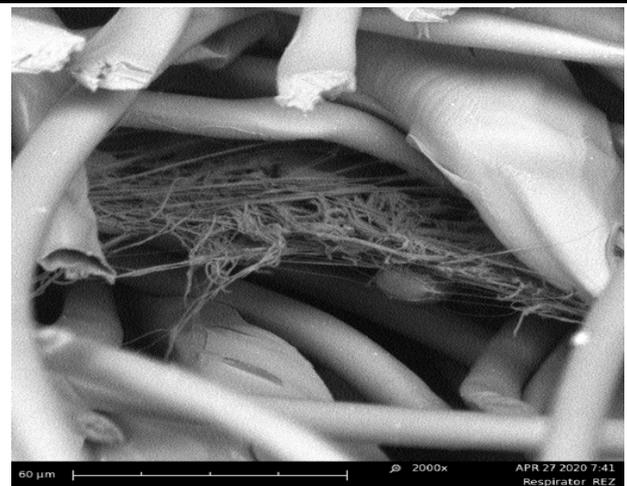
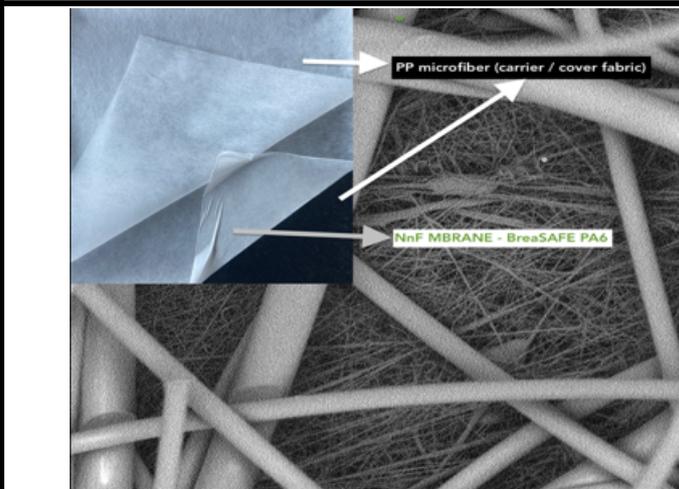
(PARAMETRY MATERIÁLU)

SEM

940x

SEM

2000x



### MEASURED PARAMETERS

(NAMĚŘENÉ PARAMETRY)

Fiber diameter (SEM) (průměr vláken)	<b>150 - 500 nm</b>	Width of the roll (m) (šíře role)	<b>0,4-0,6 m</b>
Fiber length (SEM) (délka vláken)	<b>continuous</b>	Length of the roll (lm) (délka role)	<b>100-500 m</b>
Doppant (dopant)	<b>Nanosilver® 160 ppm</b>	TOTAL surface area (m <sup>2</sup> ) (CELKOVÁ plocha)	
Grammage of NnF MBRANE	<b>1-4 gsm</b>	Height of sandwich (tloušťka sendviče)	<b>250 um</b>
Carrier fabric (nosná textilie)	<b>35-60 gsm</b> (various colours)	Cover fabric (krycí textilie)	<b>17-50 gsm</b> (various colours)
Filtration efficiency 0,6um (filtrační účinnost - 0,4um)	<b>97-99,5%</b>	Pressure Drop (tlaková ztráta)	<b>80 -150 Pa</b>

Material for the production of air filters or breathing masks

Materiál pro výrobu ochranných pomůcek (filtrů, roušek)