

# Technical data sheet

## N-composite roll Type IIR

### PRODUCT IDENTIFICATION AND USE

<b>MANUFACTURER:</b>	NAFIGATE Park s.r.o., Prosecká 851/64, 190 00 Praha 9 IČ: 08555001, data box ID: 6fdd7p4 www.nafigatepark.cz, info@nafigatepark.cz
<b>PRODUCT IDENTIFIER:</b>	N-composite roll Type IIR Basic
<b>PRODUCT CODE:</b>	NCRBIIR
<b>COLOUR:</b>	white
<b>PRODUCT USE:</b>	nanofibrous composite media optimized for the production of medical protective masks class IIR (surgical face mask) according to standard EN14683 + AC: 2019 <sup>(1)</sup>
<b>PRODUCT DESCRIPTION:</b>	The nanofibrous composite is a multi-layer laminate consisting of non-woven polypropylene fabrics and a nanofiber layer of PVDF (polyvinylidene fluoride) polymer produced using Nanospider™ technology. Thanks to the lamination process, the nanofiber membrane is sufficiently fixed, which on the one hand guarantees good final mechanical properties of the final product and at the same time protects the layer from damage during normal handling and use.
<b>PRODUCT STRUCTURE:</b>	polypropylene spunbond / polypropylene meltblown / polyvinylidene fluoride (PVDF) nanofibers / polyethylene adhesive / polypropylene spunbond
<b>MAJOR BENEFITS:</b>	<ul style="list-style-type: none"> <li>• <b>Ultra-high efficiency</b> for particles the size of the <b>COVID-19</b> virus (80-120 nm)</li> <li>• Optimized for <b>IIR</b> class according to <b>EN14683</b> + AC:2019 standard (surgical mask)<sup>(1)</sup></li> <li>• <b>Stability:</b> no reduction in filtration efficiency due to spontaneous discharge</li> <li>• Possible to be washed and disinfected (according to recommended procedures)<sup>(2)</sup></li> </ul>

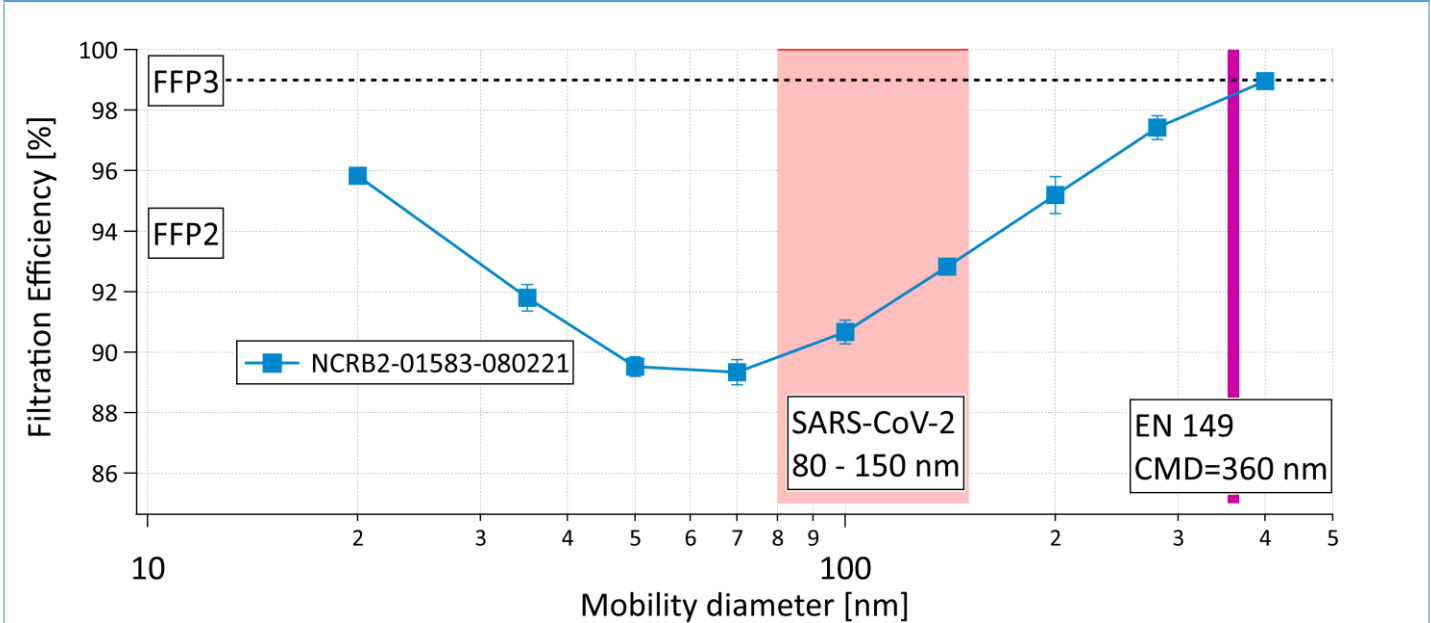
### PRODUCT PROPERTIES

Parameter	Unit	Value	requirements according to EN14683
<b>Basis weight</b>	(g/m <sup>2</sup> )	<b>58 ± 1</b>	NA
<b>Nanofiber diameter</b>	(nm)	<b>100 ± 20</b>	NA
<b>Bacterial Filtration (BFE)</b>	(%)	<b>&gt; 99,0</b> <sup>(1)(2)</sup>	≥ 98,0 (II / IIR); ≥ 95,0 (I) <sup>(5)</sup>
<b>Filtration Efficiency for PS 94,7-117,6 nm</b> <sup>(6)</sup>	(%) @ 95 l/min	<b>&gt; 90,8</b> <sup>(3)(4)</sup>	Not required
<b>Initial penetration of NaCl aerosol</b>	(%) @ 95 l/min	NA	NA
<b>Initial penetration of paraffin oil</b>	(%) @ 95 l/min	NA	NA
<b>Initial pressure drop</b>	(Pa) @ 30 l/min	<b>&lt; 59</b> <sup>(2)(1)</sup>	< 60 (IIR); < 40 (I / II) <sup>(5)</sup>
<b>Initial pressure drop</b>	(Pa) @ 95 l/min	<b>&lt; 190</b> <sup>(2)(4)</sup>	NA
<b>Initial pressure drop</b>	(Pa) @ 160 l/min	<b>&lt; 290</b> <sup>(2)</sup>	NA

### Delivery units and Storage conditions

<b>UNITS:</b>	Coiled on roll, rolls on Europallet 2. Can be delivered either in full (total) width of roll, or cut into slices, in width according to customer's request		
<b>SIZE:</b>	Roll width:	total (full) 26,0 cm	max. effective: 105 cm
	Roll length:	max. 730±20 lin. m (or shorter according to the customer's request)	
	Outer roll diameter:	max. 61-62 cm	max. weight of roll: cca. 55 kg
	Core diameter:	76 mm (3")	
<b>STORAGE:</b>	in the original packaging, storage life is 24 months, at temperatures of 10-30 ° C and humidity of max. 50%, do not store in the direct sunlight		

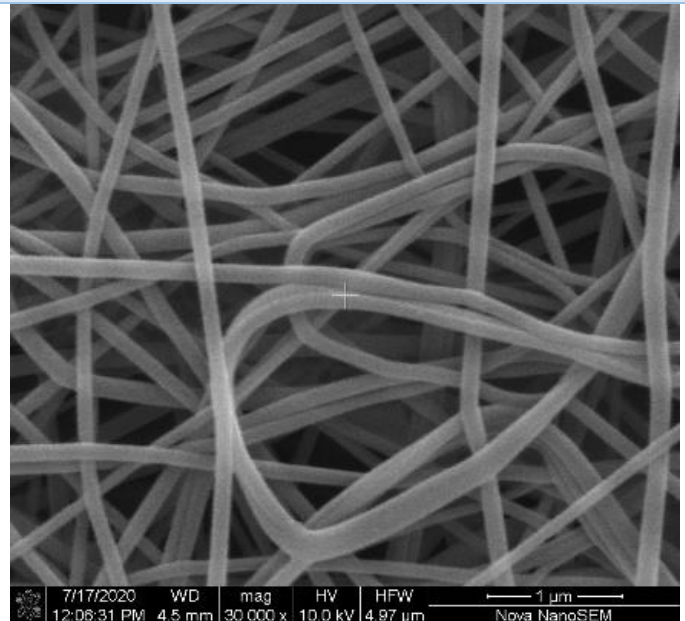
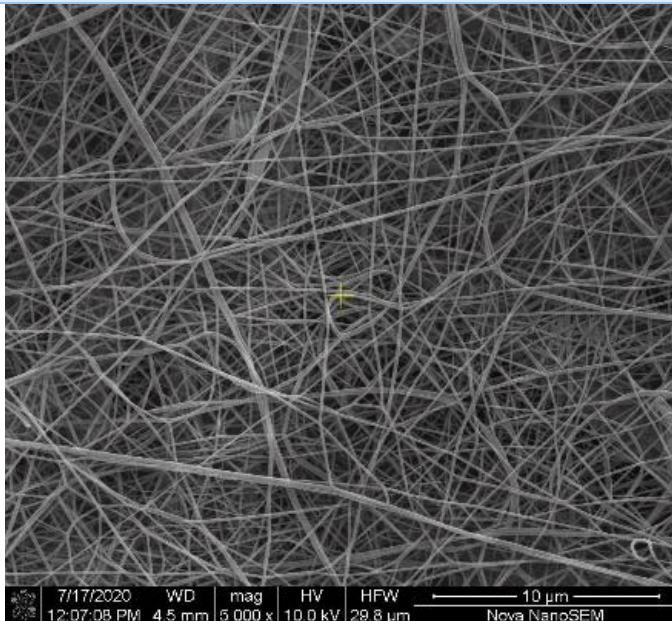
## Size resolved filtration efficiency at face velocity 10.6 cm/s (4)



## Microscope images

5.000 x

30.000 x



The data presented in this data sheet are based on currently available knowledge. The information contained herein is presented for information purposes only and does not release the user from the responsibility to confirm the data and suitability by their tests. NAFIGATE Park assumes no liability. Our products are constantly evolving, so we reserve the right to change the information contained in this document at our discretion. For questions concerning product quality and safety, please contact the address provided above or info@nafigatepark.cz.

- (1) according to test report No 462204132-01 – Accredited Testing Laboratory No. 1004 – ITC Zlín
- (2) according to test report No. KK210216/1, KK210217/3, KK210219/1– Technical University of Liberec
- (3) according to test report No. 11-02/21–Testing Laboratory– VUT Brno
- (4) according to Measurement report No. 210306/01– ICPF CAS, Laboratory of Aerosol Chemistry and Physics, Prague
- (5) according to requirements of EN14683 + AC:2019 standard
- (6) corresponds approx. to the particle size of the SARS-CoV-2 virus (responsible for COVID-19 disease)