

Technical data sheet

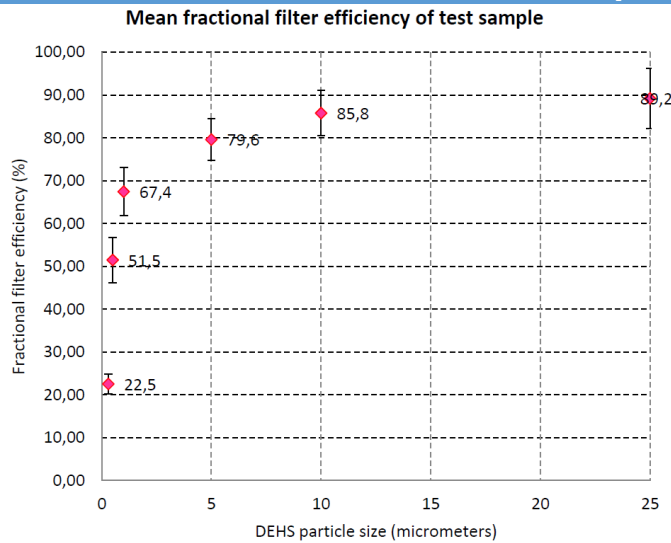
NANOCLEANER 1600 Antimicrobial

Product Identification and Use		
MANUFACTURER:	NAFIGATE Park s.r.o., Andelohorska 419, CZ 46331 Chrastava, Czech Republic IČ: 08555001, data box ID: 6fdd7p4 www.nafigatemark.cz, info@nafigatemark.cz	
PRODUCT IDENTIFIER:	NANOCLEANER 1600 Antimicrobial	
PRODUCT CODE:	NC-A16	
COLOUR:	black	
PRODUCT USE:	Window or door mesh for high purity air filtration for home use, optimized for best air permeability and optimal allergen particle retention capability	
PRODUCT DESCRIPTION:	A nanofiber composite designed for filtering air in windows or doors, which creates a barrier preventing the penetration of the smallest objects such as smog, allergens, dust and PM2.5 particles, and at the same time allows the passage of fresh air into the room. Besides fine particle filtering effect, Nanocleaner also excels in heat transfer reduction. Nanocleaner allows for safe ventilation through an open window, decreasing cost of heating and/or air-conditioning and contributing to achieving the Green Deal goal - to reduce energy consumption in buildings.	
PRODUCT STRUCTURE:	PVC - glass fiber mesh / coPES thermo-adhesive WEB / polyvinylidene fluoride (PVDF) nanofibers / PES Protective fabric (anti flammable)	
MAJOR FEATURES → → BENEFITS:	blocks out smog and exhaust fumes from cars captures allergens, pollen, spores and PM _{2,5} reduces heat transfer shading direct sunlight	→ reduced dustiness ideal for allergy sufferers, asthmatics, and anybody with respiratory problems lower cost of air-conditioning or heating

Product Properties			
Parameter		Unit	Value
	Basis weight	g/m ²	173 ± 2
	Total thickness	mm	0,47
	Nanofiber diameter	nm	120 ± 20
	Air permeability	l/m ² /s @ 200 Pa	>1600 ⁽²⁾
	Initial pressure drop	Pa @5.3 cm/s	4,2 ⁽¹⁾
	Filtration Efficiency - (Particle at 10 µm)	% [EN 16890]	85,7 ⁽¹⁾
	Filtration Efficiency - (ePM10)	% [ISO 16890]	63,5 ⁽¹⁾
	Filtration Efficiency - (ePM2,5)	% [ISO 16890]	56,4 ⁽¹⁾
	Filtration Efficiency - (ePM1)	% [ISO 16890]	50,7 ⁽¹⁾

Delivery units and Storage conditions		
UNITS:	Roll on Europallet 2. Can be delivered either in full total roll width, or sliced on request	
SIZE:	Width: Length ⁽³⁾ : Outer diameter: Weight: Core diameter:	role: total (full) 150 cm 90 lin.m (or shorter on request) max. approx. 27 cm max. approx. 26 kg 76 mm (3")
STORAGE:	storage life is 24 months, in the original packaging, in a dry, clean, well-ventilated area at room temperatures of 15-25°C. Do not wrap rolls with plastic foil, do not store in the direct sunlight.	

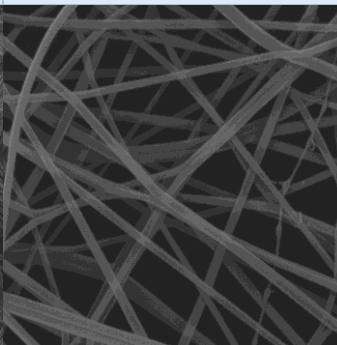
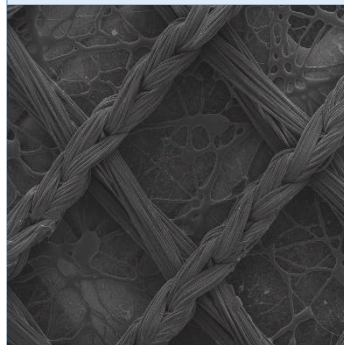
Size resolved filtration efficiency (1)



Microscope images

5.000 x

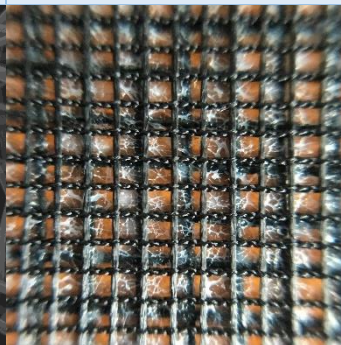
30.000 x



Product images

indoor (clean) side

outside air raid side



Antimicrobial version

For all the environments where health care is essential: houses, schools, public places we developed and highly recommend the ANTIMICROBIAL Nanocleaner versions.

The ANTIMICROBIAL effect is based upon the one of the most natural physical and chemical principles: photocatalysis. Photocatalysis is "the increase of the speed of photoreaction at the presence of a catalysator". Catalysator are TiO2 particles firmly embedded in the PVC coating of the glass fiber mesh and is neither released nor exhausted by a chemical reaction during the use.

Photocatalysis is a process activated by light and air. Once Nanocleaner is at the presence of these elements, it starts a powerful process that leads to the production of reactive forms of oxygen (ROS) and triggers antibacterial, virucidal and anti-polluting effects. ANTIMICROBIAL Nanocleaner versions prevent microorganisms from growth and do not allow the accumulation of substances microorganisms feed upon.

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 from CXI Institute for Nanomaterials and Advanced Technologies and Innovations TUL – Czech Rep.

(2) according to internal measurement on Palas PMFT 1000 and/or TexTest FX 3500 Combiscan Test rigs

(3) guide value, which may vary depending on the length of the roll from the mesh supplier