

**TECHNICAL SHEET** 

Version: nº5 Edition: 03/11/2020

### VIRUPROTEC

# Permanent nanotechnological protector for

face masks and other fabrics

Product description	VIRUPROTEC is a water-based nanocoating, designed specifically to create a permanent (long- lasting) and immediate barrier against the development of viruses and bacteria in face masks, garments and fabrics in general.
	It provides preventive action and long-lasting effect, resisting washes (it reduces washing needs by more than 5 times) and several cleanings (cloth, sponge, microfibre, etc.).
	In addition, VIRUPROTEC is a hydrophobic product (water repellent), anti-stain, invisible, easy- to-apply, breathable, reapplicable, odourless, that makes easier the maintenance and cleaning process of face masks and other fabrics on which it is applied.
Applications	Water-based barrier product, designed to protect face masks and other fabrics against viruses and bacteria permanently, extending lifespan of the treated surfaces and facilitating their maintenance and cleaning. VIRUPROTEC can also be used to protect other garments and fabrics.
	Specially recommended for the protection against viruses and bacteria of all types of face masks: hygienic masks (disposable and reusable), surgical (type I and II) and PPE (FFP1, FFP2, FFP3).
	Also suitable for all types of fabrics such as workwear, clothing, sports equipment, accessories (handbags, backpacks, travel bags, etc.), shopping trolleys, stroller and child seats, school supplies (school aprons, backpacks, etc.), upholstered furniture (theatre seat, sofa, armchair, etc.), curtains, carpets, vehicle upholstery (car, bus, train, airplane), etc.



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<ul> <li>Physical barrier against the growth of viruses and bacteria (98.42% effective against <u>human</u> <u>Coronavirus</u> – tested by VIRHEALTH laboratory/France; 99.8% against Mengovirus-vMCo – tested by BIOTECNAL laboratory/Spain).</li> <li>Efficacy against viruses based on the UNE-EN 14476 standard.</li> </ul>
<ul> <li>Efficacy against bacteria based on the ISO 22196: 2011 standard.</li> </ul>
<ul> <li>It provides hydrophobic and anti-stain protection which is invisible and nanotechnology- based, facilitating the maintenance and easy-cleaning of the material. It protects and sanitises with permanent effect.</li> </ul>
<ul> <li>Water-based formulation, spray application. No need for rinsing.</li> <li>Quick and easy application on any type of fabric.</li> <li>It allows the natural breathability process of fabrics.</li> <li>Invisible. It does not change the appearance.</li> </ul>
It can be perfectly reapplied without removing the previous product remains.
<ul> <li>Washable and reapplicable depending on the use and the number of washes.</li> </ul>
<ul> <li>Odourless, after air drying for around 6 hours (variable depending on the material). It is recommended letting the treated material dry completely before storing it in the mask case or similar.</li> </ul>
<ul> <li>Application when required, product excess does not affect its protective capability against virus, it even improves it and / or reinforces it in case of re-applications, but might slow down the drying time.</li> </ul>
<ul> <li>It extends the lifespan of fabrics, recovers performance and improves their appearance, facilitating their maintenance and protection, reducing washing needs and increasing their period of use.</li> </ul>
<ul> <li>Colour: Whitish liquid.</li> <li>Standard format: 125ml, 500 ml, 5L and 25L.</li> <li>Volatile Organic Content (VOC) &lt;25% wt</li> <li>Density: 0,955 g/ml</li> <li>Viscosity: 3,25 cP</li> <li>Boiling Point: 100°C</li> <li>Solvent: Water</li> </ul>
Before its application, the fabric must be clean and dry. It is possible to apply the product on slightly damp fabrics (complete drying of the support is not required), but it may take longer time to dry.
<ul> <li>SHAKE THE PRODUCT BEFORE ITS USE.</li> <li>Spray it evenly over the surface to be protected (with handheld sprayer, electric spray gun/airless, backpack sprayers, etc.).         <ul> <li>For face masks: on the outside of the face mask, apply approx. 20 sprays (adult size) and 15 sprays (children size).</li> <li>For other fabrics: on the outside of the fabric, apply the product ensuring full coverage according to the absorption capacity of the fabric, when required.</li> </ul> </li> <li>Drying time for around 6h (depending on the type of fabric). Drying can be accelerated by using the tumble dryer, heat source or by exposure to direct sunlight.</li> <li>It can be reapplied when required, depending on: the use of face masks, clothing or fabrics; number of washes (it reduces washing needs by more than 5 times) or cleanings/disinfections (approx. 50 non-aggressive cleanings or disinfections with</li> </ul>

 TECNOLOGIA NAVARRA DE NANOPRODUCTOS S.L. (TECNAN) • Área industrial Perguita, 1 • 31210 Los Arcos (Navarra-SPAIN)

 Tel: +34 948640318 • www.tecnan-nanomat.es

 • tecnan@tecnan-nanomat.es



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	<ul> <li>Reapply it when loss of water repellency is observed. Reapply it on clean and dry material: face masks, clothing or fabrics. Reapplications reinforce antimicrobial protection and revitalize water-repellent effect and maintenance properties.</li> </ul>
Yields and storage	<ul> <li>Dilution: none</li> <li>Yield: Variable yield according to the fabric to be treated. Estimated yield of 6-8 ml/face mask (15-20 applications per face masks). In fabrics, average yield of 4-5 m<sup>2</sup>/litre, ensuring full and uniform coverage of the fabric.</li> <li>Drying time: approx. 6 hours depending on the fabric.</li> <li>Application and storage temperature: between 5°C and 30°C.</li> </ul>
Observations	When stored in original sealed containers at temperatures between 5°C and 30°C, its shelf life is of 12 months from the date of its manufacture. Avoid direct exposure to sunlight, keep away from heat and flames and prevent it from freezing. The material can settle slowly, therefore it is recommended shaking it before its use.
Handling precautions	The product safety information necessary for its safe use is not included herein. Before using this product, read the material safety data sheets and the container labels for its safe use and for information on physical hazards and health. The material safety data sheets are available and are supplied by TECNAN.
Limited warranty information	<b>Please read carefully:</b> The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should be used properly, verifying in preliminary tests that the product is suitable for its intended use. Suggestions of use shall not be taken as inducements to infringe any particular patent. The only guarantee of TECNAN is that the product will meet the sales specifications in effect at the time of shipment. Your exclusive remedy for breach of this warranty is limited to the refund of the purchase price or replacement of any product that is not warranted. TECNAN specifically disclaims any express or implied warranty of fitness for a particular purpose or marketing. TECNAN disclaims responsibility for any damage caused accidentally.