

DATA SHEET

FACE MASK

—
**TRIPLE LAYER OF
NON WOVEN FABRIC WITH
GRAPHENE OXIDE**



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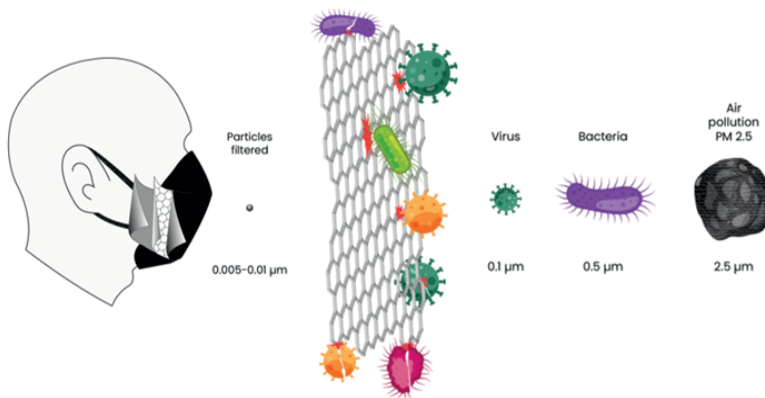
EVERGEIA®

Description

Face masks are made with a A-B-C configuration (three layers of polypropylene non-woven fabric) reinforced with a specialized formulation of graphene oxide (GO), integrated along the entire surface of the fabric to improve its barrier properties and provide greater user safety.

Graphene Oxide nanotechnological barrier

The size of the exfoliated GO particle in the horizontal plane is in the range of 1.0 to 5.0 μm (1000 to 5000 nm), the distance in the vertical plane is >1 nm and the distance between the carbon atoms that make it up is 0.142nm.



Schematic representation of the graphene oxide nanotechnological barrier and nano-microscale structures.

Advantages

The nanotechnological barrier of face masks comes from the formation of a denser and more organized architecture at molecular level, which improves antimicrobial properties, impermeability against liquids and, against fine/ultrafine particulate matter.

Physical Properties



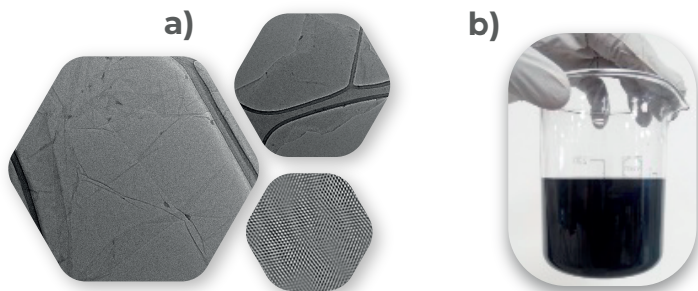
Schematic representation of the A-B-C configuration of the facemask with graphene oxide.

LAYER A	External Cloth with Graphene Oxide	Reference values
	Fabric identification	Non-woven fabric
	Material	Polypropylene
	Grammage	60 grams / m2
	Nanotechnological additive	Graphene oxide

LAYER B	Intermediate Layer	Reference values
	Material identification	Emulsion and/or resin
	Material	Acrylic and/or others
	Nanotechnological additive	Graphene oxide

LAYER C	Internal fabric	Reference values
	Fabric identification	Non-woven fabric
	Grammage	35 grams/m2

Graphene Oxide Images



- a) Representative images of the graphene oxide present in face masks.
- b) Appearance of the GO in dispersion.

Equipment: HRTEM JEOL JEM-2100. Energy Dispersive Spectroscopy (EDX/EDS), Oxford, Instruments. U.A.S.L.P.

Legal Note

The information contained in this document is believed to be correct and is not intended to be exhaustive, so it should only be used as a guide and does not represent any guarantee of the product.

The properties conferred by graphene oxide in protective masks depend on its correct handling and incorporation into the non-woven fabric and in accordance with the conditions and specifications determined by Energeia Fusion S.A. of C.V.

For more information contact contact@graphenemex.com

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