



invisi  smart

INVISI SMART MASK™

THE SMART SELF-DISINFECTING FACE MASK

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Next-generation Protection



Combining cutting-edge science with high-grade surgical masks, we have created the **Invisi Smart Mask™**

Developed by Invisi Smart Technologies, Invisi Smart Shield™ is a molecular nanocoating applied directly to the mask, which is proven to kill 99.99% of viruses and bacteria. It also breaks down volatile organic compounds and air pollutants. The Invisi Smart Shield™ is the result of over **10 years of extensive research and development.**

The immune system uses reactive oxygen species (ROS) to eradicate any unknown invader as a first defence. Invisi Smart Shield™ mimics the human immune system's natural response.

Our superior technology uses ROS, which gives it the ability to continuously decompose pathogens, organic and inorganic compounds by completely converting them into carbon dioxide & water and even eliminating the build-up of residual matter from its surface.



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Our mission is to incorporate our innovative technology into protective solutions for you, for your business and for your environment

SABA YUSSOUF
CHIEF EXECUTIVE OFFICER
INVISI SMART TECHNOLOGIES



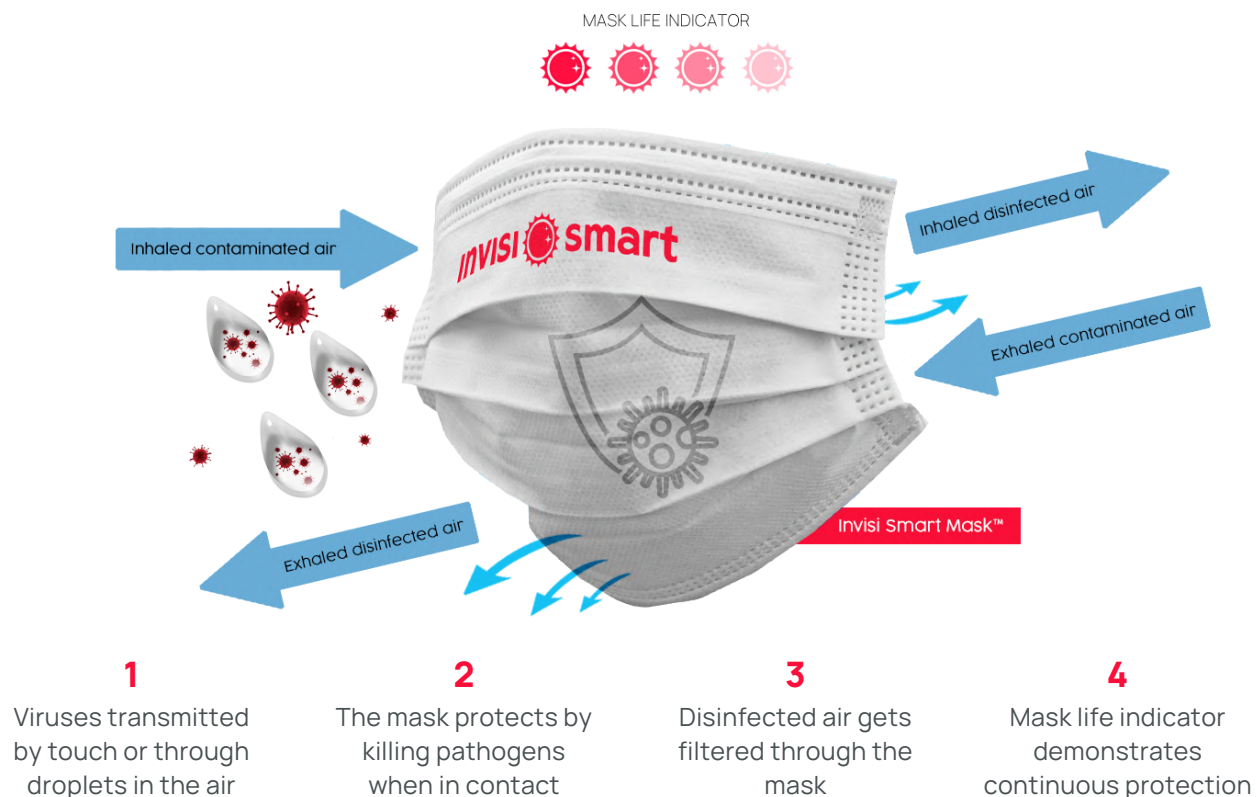
Revolutionary Surgical Mask

Our mask has a seamless antimicrobial shield that ranges between 1-2µm in thickness, creating invisible protection. Conventional masks offer a standard level of safety and are often ineffective as they allow germs to be deposited on the mask that can cause cross-contamination.

The mask activates as soon as you begin to use it and continues disinfecting until the signature sun logo fades. Our self-cleaning technology means that **our mask can be re-used and disposed of safely.**

Common risk factors in ordinary face masks

- Pathogens are transmitted in droplets and airborne matter to the mask
- Particulate matter filters cannot inhibit all viruses from passing through
- Pathogens can often get stuck and can live within them for up to 9 days
- Infection risk increases when handling contaminated mask (i.e. removing/doffing, etc.)



The Need for a Reusable Virucidal Mask

The Global Problem

Respiratory viruses such as influenza, coronavirus and many more, are highly contagious, cause infection and in some cases can lead to epidemic or even pandemic outbreaks. According to the World Health Organisation (WHO) global mortality rates of influenza are between 290,000 to 650,000 people per year.

SARS-CoV-2, the virus that causes COVID-19, was first reported to the WHO on 31 December 2019 after a slew of cases appeared in Wuhan, China. In the space of 5 months, the virus has been detected in over 7 million people worldwide and killed over 400,000.*

COVID-19 is a respiratory illness and it's primary transmission route is through person-to-person contact and through direct contact with respiratory droplets generated when an infected person coughs or sneezes.

*Figures accurate as of June 2020 provided by <https://www.worldometers.info/coronavirus/>



Longer
Lasting
Protection

Effective inhibition of infectious agents present in the surrounding nosocomial environment is crucial for the protection of patients and healthcare workers. There is much concern around heavy viral contamination and increased exposure to SARS-CoV-2 for healthcare workers.

Front-line healthcare workers are most vulnerable for acquiring infections and a high level of biosafety is imperative.

The use of self-cleaning technology on protective PPE equipment is of great value in the prevention of contamination, disease contraction and in the regulation of dangerous viral exposure levels.

The Invisi Smart Mask™ has been tested against the Middle East respiratory syndrome (MERS-CoV) related coronavirus. It is currently being tested against SARS-CoV-2 at the University of Cambridge (Gupta laboratory) and the Danish Technological Institute.

Our Invisi Smart Mask™ will continuously protect healthcare workers for an extended period of time, while eliminating risk of cross-contamination and can, therefore, be worn between patient interaction.

Even in the process of doffing, their equipment will continue to offer protection – a key concern for personnel and governments alike. The Invisi Smart Mask™ is not only an innovative long-lasting mask, but due to self-disinfecting technology it is reusable and hence a more sustainable option to a growing waste problem.



The Science Behind Our Technology

We engineered a next-generation molecular nanocoating, Invisi Smart Shield™, that uses photocatalytically-activated titanium dioxide (TiO₂) to coat our revolutionary mask. Titanium dioxide is a nontoxic FDA and EPA listed molecule that is used to eliminate and remove virulent particles.

Our titanium dioxide-based formula has demonstrated antimicrobial and antiviral activity through the generation of reactive oxygen species (ROS) under photocatalysis.

Invisi Smart Shield™ has been proven to destroy organic substances that come into contact with it. Viruses, bacteria, fungi, and volatile organic compounds (VOCs) are quickly decomposed and converted into water (H₂O) and carbon dioxide (CO₂).



The mode of action of our photocatalytic antimicrobial coating can be described by the generation of potent oxidising radicals on a semiconductor surface after light absorption, in the presence of oxygen and water. The spectrum of natural and most artificial light sources, overlap suitably with the band gap of the semiconductor to produce radicals.

In other words, ROS are created by the irradiation of the semiconductor, titanium dioxide. These in turn, exert potent microbicidal activity upon contact with various microbes, which is regenerated through further exposure to light – a highly desirable property of self-renewal.

Titanium dioxide, a natural occurring mineral, is considered stable, slow degrading and the development of resistance is not expected.

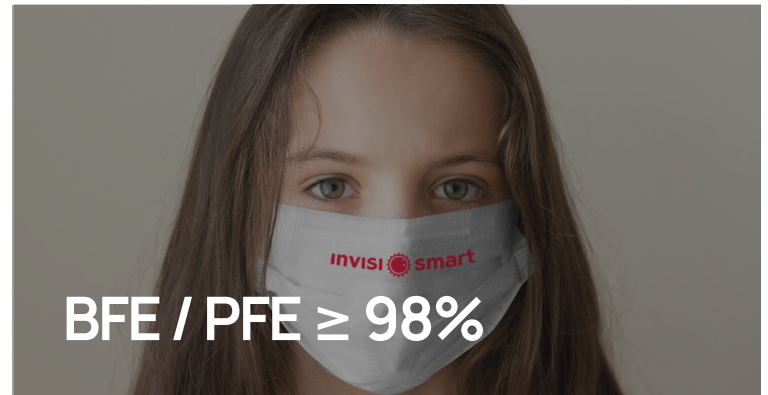
Mask Comparison

	INVISI SMART MASK™	N95	FFP3	3-PLY MASK
BFE / PFE ≥ 98%	●	●	●	●
Virucidal/biocidal activity	●			
Prevents contamination	●			
Self-cleaning	●			
Easy to breathe	●			●



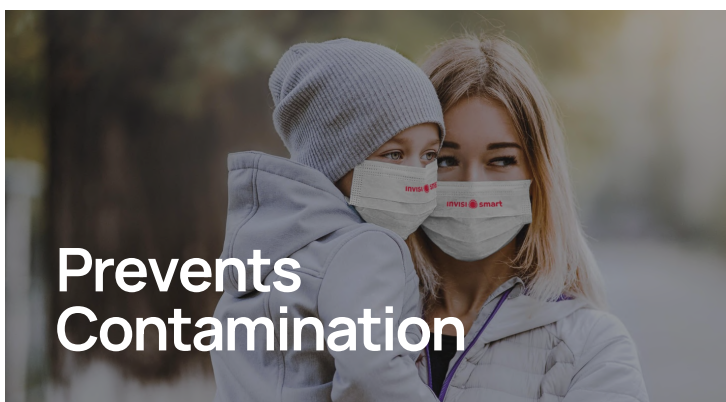
Summary

Our next-generation Invisi Smart Mask™ is based on the photocatalysis of titanium dioxide to eliminate and remove virulent particles.



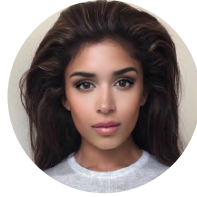
Our technology decomposes organic & pathogenic substances, odours and gaseous outputs converting them into water and carbon dioxide ensuring safety and comfort for humans and the environment.

Our masks are reusable and long-lasting and have a built-in mask life indicator.



Biosafety is conserved by the effective inhibition of infectious agents present in our surrounding environment. Our self-disinfecting mask is essential in the prevention of contamination and disease control.

Meet the team



Saba Yussouf

Chief Executive Officer

Saba's experience at Ernst & Young launched her interest in science and biotechnology. This fuels her mission with investments in R&D and commercialisation of technologies in communication, infection prevention and water treatment.



Timi Hesselhoj

Chief Scientific Officer

Timi has a plethora of experience in biotech, private equity and venture capital. As a molecular biophysicist, her dedication to science has been awarded through both her education, career and as a TEDx speaker.



Professor Franca Fraternali

Scientific Advisor

Prof. Franca Fraternali received her PhD in Physical Chemistry from the University of Naples. Since 2018, she is the Director of the Randall Centre for Cell and Molecular Biophysics.



Professor Jeremy J. Ramsden

Scientific Advisor

Prof. Jeremy J. Ramsden is widely considered as one of the founding fathers of nanotechnology. He has written or co-authored more than 250 peer-reviewed scientific papers and books.



Jessal Naran

Product Development

Jessal graduated from the University of Manchester and began working as an Audiologist in flagship clinics. He has gone on to brand and develop products in a number of businesses.

Company Development

Invisi Smart Technologies

Advanced Technology & IP Development

- Benefit from 10+ years of licensed IP development
- Ongoing tests, research & studies, tech & IP collaborations
- Patents filed
- Approvals Registrations & Certificates
 - USA Environmental Protection Agency (EPA) Certification
 - FDA EUA
 - EU/German Biocidal Registration
 - EU/German Registration Safety
 - FDA Pending

Commercialisation Roadmap

- Commercialisation in place
- Revenue generating
- Clear path and timeframe to marketing launch
- New product launch roadmap in place

Academic Collaborations

- University of Cambridge
- Addenbrooke's Hospital
- King's College London
- Danish Technological Institute

Fully Developed Product Line

- Invisi Smart Mask™
- 1-year Invisi Smart Shield™
- 5-year Invisi Smart Shield™
- Invisi Smart Hand Sanitiser™

Future Developments

- Leading initiative in collaboration with University of Cambridge and Addenbrooke's Hospital Cambridge to develop an Invisi Smart FFP3 Mask™

Product Details & Manufacturing

Manufacturing Capacity

500 million masks per week

Factory Locations

Bangalore, India
Shenzhen, China
Minnesota, USA
Phoenix, USA

Strategy Capacity

200 million masks per week

FOB Ports

Chennai, India
Shenzhen, China
Rochester International Airport
Phoenix Sky Harbour Airport

Growth Production Capacity

Plans to open a series of factories
in strategic locations

Delivery Timeline

7 days



Packaging & Labelling

Product & Packaging Information

The product is packaged in boxes with 50 units. There are 72 boxes per carton and 14 cartons per pallet (1 carton = 3,600 units / 14 cartons = 50,400 units).

- **Product Name:** Invisi Smart Mask™
- **Country of Origin:** USA / China / India
- **Quantity Per Box:** 50 masks
- **Quantity Per Carton:** 72 boxes
- **HS Code:** 630790790
- **Model Type:** Coated Mask w/ Ear Loops & Nose Clip
- **BFE:** $\geq 98\%$
- **PFE:** $\geq 98\%$
- **Carton Size:** 520mm x 490mm x 590mm
- **Carton Weight:** 13.35kg

Ingredients

Primer: Aqua Compound of Peroxisotitanium Hydrate Hydrated Titanium Pentoxide (Anatase). Topcoat: Aqua Compound of Peroxisotitanium Hydrate Hydrated Titanium Pentoxide (Anatase).

Safety Usage Instructions

Before putting on a mask, clean hands with alcohol-based hand rub or soap and water. Cover mouth and nose with mask and make sure there are no gaps between face and mask. To take off the mask, carefully remove ear loops from behind the ears with clean hands.

Track record

Our clients



INVISI SMART MASK™



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Shielding Your Health

We believe prevention is always better than treatment.
Shielding you from infection before it happens. Copyright © 2020

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