FFP2 Virucidal Face Mask

- Virucidal
- Antiviral
- Antimicrobial
- Eliminates 99.9% of SARS-CoV-2 within 5 minutes of contact*
- Safe and verified

Kills SARS-CoV-2
Multi-Strain Protection
Omicron, Delta and others
Our solution

Neutralise the threat upon contact

The virus needs to be neutralised, not just blocked, to further reduce the risk of transmission through the air or by physical contact.

ViraCoat’s proprietary virus-killing coating is applied to and incorporated into PPE and other products to inactivate the virus to an efficacy of 99.9% within 5 minutes of contact.*

NEUTRAPOLIDAL™ TECHNOLOGY

* Based on initial testing results at the time of publication. Our testing program is rigorous and comprehensive, and to date, we are achieving extremely rapid elimination rates of SARS-CoV-2 when it is introduced onto material coated with our virucidal, antiviral and antimicrobial compound. Up-to-date specifications and results are available upon request.
ViraCoat’s COVID-eliminating PPE will:

- Increase the efficacy of PPE globally via our first-to-market patented antiviral coating with highly effective virus neutralisation properties.
- Significantly reduce the frequency at which health workers need to dispose of and replace PPE, therefore significantly reducing throwaway waste, landfill, and waste ending up in our oceans and waterways.
- Reduce the total spend on PPE that governments, private healthcare providers, and the general public need to make based on the potential for PPE to be effective for longer and require a lower frequency of replacement (some ERs require workers to replace masks and other disposable PPE up to 4 times during a single shift).
- Offer a global distribution network of a new, more effective PPE range to ensure it reaches those who need it most.

Make more effective PPE and make it more readily available

ViraCoat is developing a global network of distribution channels for our products, to ensure we can put our virus-killing PPE in the hands of those that need it the most, regardless of geographical location.
World-Leading CL3 Viral Research Facility

ViraCorp has partnered with the World-Class Lancaster University as the lead research facility for the rigorous testing of all ViraCorp products.

The University’s biomedical facilities and equipment are state-of-the-art, with a CL3 Laboratory and full access to the University’s resources as required for each project.

The facility has access to all current and previous strains of SARS-CoV-2 (including Omicron and Delta) to conduct laboratory product testing.

The 2014 Research Excellence Framework (REF) confirmed Lancaster as a world-leading research university.

In the last REF, 83% of Lancaster’s research was rated as either internationally excellent or world leading. Lancaster University’s research is truly international in focus, with research partnerships in over 60 countries around the world.

Dr Muhammad Munir

Lead Medical Researcher & Virologist

Dr Muhammad Munir is a molecular virologist at the Lancaster University with research experience on viral diagnostics, vaccine development and viral pathobiology. Dr Munir has co-developed an artificial intelligence guided molecular diagnostic platform for SARS-CoV-2 detection which is CE Marked and MHRA approved.

He has developed a novel vaccine against COVID-19 that blocks transmission and can be administered through the nose.

Dr Munir is a member of the WHO expert panel on animal models and COVID-19 vaccines. He has provided expert comment on viruses over 500 times on 18 different TV/Radio channels including CNN, BBC, Sky News, ITV etc.
ViraCoat has developed a novel Virucidal, Antiviral & Antimicrobial coating (Neutrapodal™ Technology) which has been scientifically demonstrated to have profound antiviral properties against SARS-CoV-2 (including new strains), Influenza (PR8 strain), and Bacteria (E. coli).

ViraCoat's Neutrapodal™ Technology has been incorporated into the ViraCoat COVID-eliminating Antiviral FFP2 Mask at a manufacturing level, to inactivate the virus and help reduce the spread of COVID-19 and other bacteria to an efficacy of 99.9% within 5 minutes of contact.*

The mask is manufactured by ViraCoat in state-of-the-art Module D PPE manufacturing facilities, using our proprietary Neutrapodal™ Technology and other exclusively-sourced components to the highest possible standards.

Key features of Virucidal, Antiviral & Antimicrobial (Neutrapodal™ Technology)

- Eliminates SARS-CoV-2 to an efficacy of 99.9% within 5 minutes of contact.*
- Infused into mask textile material under extreme pressure — creating an extremely durable and virtually irreversible bond between the Neutrapodal™ coating and the mask material at the molecular level.
- Protects against both viruses and bacteria.
- Stringent, comprehensive safety R&D and approvals.
- All ViraCoat products are tested using live, current strains of virus and bacteria.
- Tested as effective on all SARS-CoV-2 strains (Omicron (South Africa); Delta (India); Gamma (Brazil); Lambda (Peru); Beta (South Africa);
Why our Virucidal Masks are so important to the fight against COVID-19

Vaccines alone are not completely effective against becoming seriously ill from COVID-19, and most do not effectively reduce transmissibility. Current vaccines are also likely to become less effective over time as variants continue to emerge.

Having a COVID-killing coating that starts working immediately upon contact with the virus acts as a potential invisible ‘circuit-breaker’ in the transmission of COVID-19 via fomites and airborne droplets.

Health authorities (including the WHO) recommend that a multifaceted approach of prevention and protection is the only route to controlling COVID-19 in a sustainable manner.

Key features of the COVID-eliminating Virucidal FFP2 Mask

• Distinctive green colour is easily identifiable and means you instantly know you are picking up a more effective piece of PPE.
• Lightweight — Weighs less than 6g.
• Reusable — Virucidal properties mean less-frequent replacement may be required throughout the day*.
• Ergonomically shaped for comfort and ease of use.
• Adjustable nose bridge to ensure an optimal seal.
• Individually wrapped and packaged in a box of 25 complete with instructions.
• FFP2 filtering efficiency:
  ◦ Filtering ≥94% of aerosols
  ◦ Total inward leakage <8%
R&D & Testing Background

- **Significant resources have been invested into R&D and testing** for the ViraCoat ACM, and the FFP2 Mask to ensure it meets the highest standards of efficacy and safety.

- A rigorous R&D and testing program is lead by world-leading molecular virologist *Dr Muhammad Munir* and his team.

- Dr Munir is a member of the WHO expert panel on animal models and CoVID-19 vaccines. He has provided expert comment on viruses over 500 times on 18 different TV/Radio channels including CNN, BBC, Sky News, ITV etc.

- ViraCoat and its parent company, ViraCorp, are partnered with **World-Class Lancaster University** as the lead research facility for the comprehensive testing of all ViraCorp products.

- The university’s biomedical facilities and equipment are state-of-the-art, with a **CL3 Laboratory** and full access to the university’s resources as required for each project.
Green by colour, green by impact

**Usable for extended periods of time, may significantly reduce PPE wastage**

Many hospitals report health workers changing masks between 3 and 8 times throughout the course of the day. ViraCoat’s COVID-eliminating Mask could save millions of tons of additional masks ending up in landfill and our oceans every single year.

**Distinctive green colour means you instantly know you are protected**

ViraCoat’s COVID-eliminating Mask and its unique Virucidal, Antiviral, Antimicrobial coating has been specifically designed in our Signature Green colour, to ensure you always know when you are picking up enhanced protection PPE.

**Less frequent replacement could mean a significant saving for our health system — that’s a win for everyone**

ViraCoat’s COVID-eliminating Mask could save health authorities and Governments tens of millions of dollars a year in PPE expenditure, with less frequent replacement of disposable masks. This saving could be reinvested into other desperately-needed health care and medical services.

**COMPETITOR COMPARISON**

**ViraCoat FFP2 Mask with Neutropodal™ Technology**

**Other Brands Standard FFP2 Mask**

**Potential range of masks used**

*(Per Shift)*

<table>
<thead>
<tr>
<th>1 to 3 masks</th>
<th>4 to 8 masks</th>
</tr>
</thead>
<tbody>
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<td><strong>ViraCoat</strong></td>
<td><strong>Other brands</strong></td>
</tr>
<tr>
<td>(1 to 3 Masks)</td>
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<tr>
<td><strong>192 to 576 Per year</strong></td>
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**Potential amount discarded to landfill per year and potential cost saving**

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**£25% - 87.5% Potential waste and cost saving**

*Disclaimer:
Based on current lab testing results to date. The information in this document was deemed to be correct at time of publication but is subject to change without notice.
This data is based on 4 shifts worked per week (8 hours each), 48 working weeks per year.
This research and its findings were conducted internally by ViraCoat Ltd and based on referencing various publicly available hospital, medical and government protocols around PPE usage, within the NHS and also within Australia. It has not been independently verified and all buyers should conduct their own due diligence into the potential cost and environmental savings of the product based on individual circumstances and PPE protocols.

*Based on current R&D and testing to date. Results may vary and/or be subject to change without notice.
ViraCoat—Technical & Research

Antimicrobial / Antiviral Coated Fabrics (AMC)

Mock Coated Fabrics (MC)

0.4g / sample (stacking each with 20x20mm dimension)

Contact of AMC with the virus

Serial dilution

Confluent cell monolayer

Dilution of SARS–CoV–2

Virus

1:10

1:10

1:10

1:10

1:10

No virus

Allowing the virus to replicate

Visualising replicating viruses

Non-antiviral

Antiviral

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* Based on current lab testing results to date.
^ Testing & Certification Pending

Eliminates 99.9% within 5 minutes of contact.”
Certifications & Approvals

All ViraCoat Virucidal Masks are manufactured within a facility that is compliant with Module D of the Personal Protective Equipment (PPE) Regulation (EU) 2016/425.

Our manufacturing facility is under surveillance of both an EU Notified Body & a UK approved body that allows the product to be marked both CE & UKCA.

- **EN149:2001+A1 2009 FFP2**
- **CE 0598 UKCA 0120**
- **ISO18184:2019**
  (Textiles — determination of antiviral activity in textile products)
- **ISO 10993-1:2018**
  (Biological evaluation of medical devices (safety, cytotoxicity, dermal & skin sensitisation))

**APPROVALS IN PROGRESS:**
- TGA (Australia)

**APPROVALS PLANNED:**
- NIOSH (USA)
- FDA (USA)
- MHRA (UK)
Contact

For sales & order enquiries, visit www.viracoat.global to connect with the licensed distributor in your region.