Antimicrobial Lamination Film

This can be laminated onto paper or board or even plastic sheets to help prevent the spread of bacteria and viruses through contact with surfaces that are being handled frequently.

Background Info

Viruses are not living organisms.	Bacteria are living organisms.
Viruses only grow and reproduce inside of the host cells they infect. When found outside of these living cells, viruses are dormant. Their "life" therefore requires the hijacking of the biochemical activities of a living cell.	Bacteria are living organisms that consist of single cell that can generate energy, make its own food, move, and reproduce (typically by binary fission). This allows bacteria to live in many places—soil, water, plants, and the human body—and serve many purposes.
Viruses are submicroscopic.	Bacteria are giant compared to viruses.
A viral infection is systemic. Viruses infect a host cell and then multiply by the thousands, leaving the host cell and infecting other cells of the body.	Bacterial infection is usually confined to a part of the body, described as a localized infection. Infections may be caused by the bacteria or by toxins (endotoxins) produced.
Systemic diseases caused by viral infection include influenza, measles, polio, AIDS, and COVID-19.	Bacterial diseases include pneumonia, tuberculosis, tetanus, and food poisoning.

Antiviral properties:

Tests were carried out by an independent laboratory according to ISO 21702, certifying antiviral activity on plastic surfaces and other non-porous surfaces.

Results:

Trials have shown that after 2 hours there is a 65% reduction in viruses in the surface area: after 12 hours there is a reduction of 73%. These reductions have been tested with the feline coronavirus (FCoV), strain Munich.
Justification of the choice of feline coronavirus (FCoV), strain Munich to perform these tests:
▪ FCoV is the representative of the coronavirus family that is regularly available in laboratories for testing.
▪ FCoV shares characteristics with other coronaviruses, such as SARS-CoV-2 (COVID-19), in the composition and structure of its protective cover or capsid.
▪ The results obtained are indicative of the film's antiviral behaviour in relation to other viruses in the same coronavirus family.

Antibacterial properties:

Tests were carried out by an independent laboratory according to ISO 22196, certifying antibacterial activity on plastic surfaces and other non-porous surfaces.

Results:

Tests have shown that after 24 hours there is a reduction of more than 99% of bacteria on its surface.
The bacteria used for this trial were Methicillin-resistant Staphylococcus Aureus (MRSA) and Escherichia Coli (E-Coli).
These two bacteria were chosen because they affect humans differently and with commonly differentiated transmission pathways.

Anti-fungal and anti-mould properties:

The biocidal properties of the additives used for the manufacture of our antimicrobial film and the manufacturing process itself allow positive results to be inferred from the anti-fungal and anti-mould qualities, although the necessary tests have not yet been carried out to determine the degree of effectiveness.