

Education message needs to go viral

By **Paul Dawson**, commercial director, **Niglon**

What does the phrase 'antiviral' mean to you? Please just think about it for a moment. Now, did you realise there are materials being marketed as antiviral right now which are actually effective against a type of virus that isn't necessarily harmful to humans? Or that 'kill rates' of different viruses can vary significantly, even when placed on the exact same product surface? Let me say that again. There are businesses, within our own electrical industry, selling product marked generically as 'antiviral' when the viruses they're proven to be effective against aren't necessarily going to make us unwell.

Shocked? I was.

The team here at Niglon isn't prepared to take the 'antiviral' messaging that we're all currently being bombarded with at face value. And we won't risk our name and reputation up-selling a product which purports a tangible user benefit, if it is in fact questionable. That wouldn't be genuine or responsible, and it's not how we conduct business.

That's why we've engaged with leading experts from the University of Manchester to further our knowledge about how viruses act on surfaces, and commissioned testing on our own products as well as other manufacturers' within our market. We want to uncover the truth behind these advertising claims while educating ourselves and like-minded customers on this topic.

When 'antiviral' and similar buzzwords started popping up within industry advertising, boldly inferring that products such as light switches can actually help reduce virus transmission, I wanted us to understand the science behind those claims. We needed to explore whether individuals are being misled and potentially put at risk, because the 'antiviral' message some companies promote doesn't always perfectly reflect the scientific reality. Opaqueness does not breed reassurance, and there is a lot the public do not understand or appreciate within this area; virology is a field of study all of its own for good reason.

Concerning results

What's clear is that contractors who've worked in care homes, hospitals and other sites where 'antiviral' products have been specified and installed to keep users safe, may not have been provided with sufficient detail by manufacturers



to enable them to make informed purchasing decisions. And as we all know, the devil is always in the detail.

A switch plate which is deemed 'antiviral' might suggest to some that you can't pick up any type of virus from touching it. Others may instantly equate antiviral to anti-Covid19, given the history of recent events. In reality the situation is far more nuanced, with people outside of a science background unlikely to be well enough informed and consequently at greater risk of being misled. You need to know your enemy (as the saying goes), and what appears to be going on is an unfortunate example of certain businesses trying to extract value from a terrible situation, without giving all the information necessary to keep their customers safe. Or maybe some manufacturers don't even know the science themselves...now there's a sobering thought.

Where's your proof?

Through our research and expert consultations, we've learned there are different types of viruses (enveloped and non-enveloped), those that use human cells as their host and those that affect bacteria.

The ones that use bacteria as their hosts are known as bacteriophages, or phages, and they actually live harmlessly within most of our guts.

In fact, there are trials across the world where they're being used to target drug-resistant bacteria as an alternative to antibiotics – showing they're not only harmless to humans, but in some cases can actually be beneficial!

ISO21702:2019 is the standard recognised for testing antiviral efficacy on plastic and other non-porous products, like electric light switches and socket plates. This testing regime allows for substitute viruses like phages to be used (perfectly legitimately we must add), instead of the really harmful viruses, which can spread easily. Indeed, their structure often emulates a human virus very well, which is another reason why they are used as substitutes. But our test results showed a notable difference in the rate at which a virus is neutralised from a surface (the aforementioned 'kill rate') depending whether a phage or mammalian virus (which impacts us humans) was used.

Some products may significantly reduce the transmission of a phage but not a mammalian virus. So, they're 'antiviral' when it comes to phage, but not when it comes to viruses that impact mammals. Technically these products may be legitimately described as antiviral, but are they going to stop you or me getting a form of human-transmissible Coronavirus? The answer is to always ask that question; otherwise, it may be wiser to assume not.