



Touch Guard Antimicrobial Coatings FAQs

Does Touch Guard Kill COVID-19?

Our coatings have been tested by an independent viral testing laboratory, Campden BRI, who specialise in testing surfaces and textiles. They use a safe surrogate 'enveloped' virus, known as Phi6, which exactly mirrors the genetic makeup of the Human Coronavirus or COVID-19 and is globally recognised as the safest way to test the resistance of any surface to COVID-19.

The test results (available on request) show that in the first test period, the virus count was reduced by as much as 87%, compared to the untreated (control) surface, where there was only a 3% reduction, brought about by the virus, naturally deteriorating.

The final test shows that the virus count was reduced by 100%, compared to the untreated (control) surface, where there was only a 10% reduction. This dramatic reduction proves that surfaces treated with Touch Guard will reduce the likelihood of viral transfer with every passing minute.

If Touch Guard is used to coat/treat sensitive 'high touch/high traffic' areas in offices, schools, public buildings, public areas, public transport, etc, then this will guarantee that, within 4 hours or less, all traces of Human Coronavirus or other bacteria, will be eliminated. This, in turn, not only provides a safe place to work, but also negates the need for expensive on-going daily/weekly disinfection or fogging programmes.

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Analysis of Test Results

Table 1. Phi6 enveloped virus

Mins	Replicate	Log CFU/surface count		Count Reduction	Reduction from Start	
		Control	Test			
0	1	6.35	-	x	x	
	2	6.30	-	x	x	
	3	6.35	-	x	x	
	mean	6.34	-	x	x	
120	1	6.03	2.46			
	2	5.62	0.8	5.55	87.40%	BEST
	3	5.79	1.57	4.78	75.28%	
	mean	5.81	1.61	4.74	74.65%	
240	1	5.70	0	6.35	100.00%	BEST
	2	5.55	0.18	6.17	95.75%	
	3	4.88	0.27	6.08	99.52%	
	mean	5.40	0.08	6.27	100.00%	Mean



What is Phi6

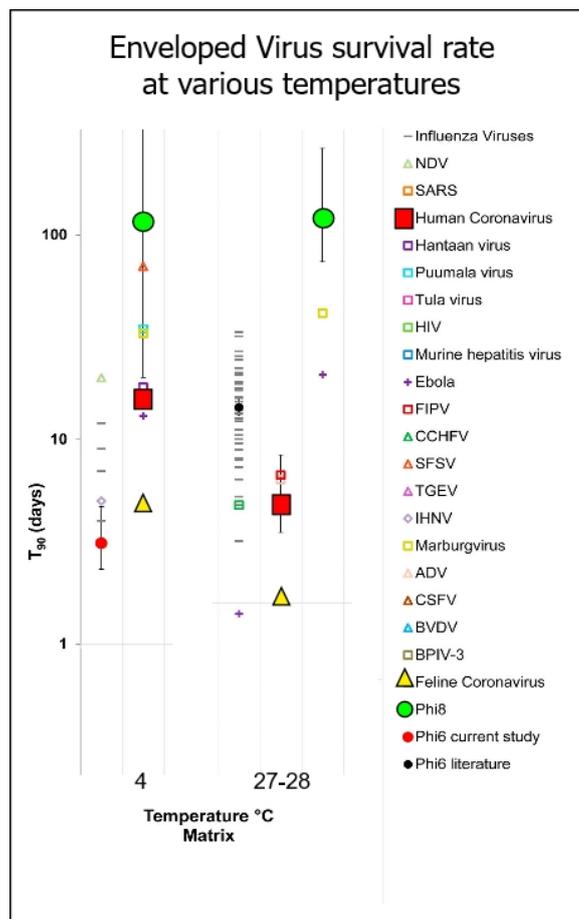
Most companies will use the Feline Coronavirus strain as a suitable surrogate, when testing, but this is a flawed process, because Feline Coronavirus has a much **lower survival rate on a surface than COVID 19, hence is not as resilient.**

So, when testing, it is absolutely critical to ensure that all tests are performed on a strain of virus that is considered much hardier/more resistant than Human Coronavirus or COVID-19.

The Phi6 enveloped virus strain was chosen as it is considered a 'heavyweight' in terms of its durability and its comparably much greater resilience than the Human Coronavirus or COVID-19.

It has a significantly higher survival rate on surfaces than most of the enveloped virus family and at a temperature of 4 degrees, can live on a surface for up to 110 days, whereas the Human Coronavirus or COVID-19 can only survive for up to 12 days. The Feline Coronavirus only can only survive for up to 8 days, as the chart below shows.

Therefore if the survival rate of Phi6 was measured over time, on a surface coated with Touch Guard, this would, in effect, provide a much sterner test, than had Touch Guard been tested against the actual Human Coronavirus or COVID-19 itself.





Touch Guard Anti-Microbial Coatings Vs Other Products

Nano Type products

These products are the most common on the market, with some very questionable claims being made, such as providing protection for 6 months or more?

These products generally consist of silver nanoparticles that are suspended in a solvent or alcohol based solution. This solution is then wiped or sprayed onto a surface, after which, the solvent evaporates, or flashes off, leaving the silver nanoparticles to stick to the surface.

As these nanoparticles are sticky, this means that they also stick to anything that touches them, including hands or clothing, thus quickly leaving the surface unprotected. In our tests on door handles there was little left after just a few hours.

The other concern relates to the silver nanoparticles themselves, as they are not UV stable and when exposed to UV light their effectiveness diminishes. And unlike Touch Guard Anti-Microbial Coatings, Nano type coatings offer no protection from UV light as they are not a film coating.

Also, there is a concern regarding the environmental impact of these silver nanoparticles being released, either when touched or simply because they drop off over time. Again, unlike Touch Guard Anti-Microbial Coatings, Nano type products offer no way of encapsulating these silver nanoparticles.

Silver ions are considered a biocide and should be treated with caution. So it is worth noting that in Germany, *BUND* criticized these types of product, claiming that considerable amounts of silver could potentially enter sewage plants and seriously trouble the biological purification process of waste water. Friends of the Earth has also claimed that silver nanoparticles have a toxic effect on different kinds of living cells.

Long-lasting 30-day disinfectants

These products are usually offered as a fogging or bomb process, which means that they are atomised or put into the air via fogging equipment and allowed to fall onto surfaces.

Firstly, this is not a perfectly accurate form of application as there are no guarantees that all aspects of all surfaces are treated, such as undersides, nooks and crannies, which is precisely where bacteria and viruses like to hide and breed.

This also applies to any form of product applied in this fashion. No doubt that these products will remain active for a considerable period, under laboratory conditions, where they are left undisturbed, however in real life situations, there is a very high probability that, with general use, they will wipe off very quickly, offering little or no durability and minimal protection.

These products are designed to clean down surfaces and would offer some level of protection on textiles.



How Hard/Durable are Touch Guard Coatings?

Although very thin, Touch Guard coatings have some very impressive stats such as a hardness/scratch resistance of H7 to H8 on the HB pencil scale, where granite is only H6 and most powder coatings are only H4.

See below for film test results

Film Pencil test results

D3363-05/ ISO 15184

Gouge	6.3H 7.5H
Cut	7.2H 8.4H

Impact Resistance

D2794/ ISO 62721/ 2"

Mandrel bend test Flexibility	Passed
Direct & Reverse	Passed
Impact 80 lb No peeling, no lifting	Passed

Corrosion resistance Salt Fog Test B117/ ISO 9227 1000 hrs

Aluminium <1% white rust	Rated 10
Stainless Steel No Effect	Rated 10

Chemical Resistance D1308/ ISO 20795.1 Procedure 5.2

15-minute spot test with 10% muriatic	Passed
Discolouration	No effect
Blistering	No effect
Acid with 10% sodium Hydroxide	Passed
24-hour immersion	Passed
2% soap solution	Passed
3 types	Passed
24-hour recovery period	
Adhesion	No effect
Gloss	No effect

Temperature Resistance

Heat to Gas-Off	660° F / 349° C
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Has Touch Guard Been Tested Against Bacteria?

Yes. Our coatings were tested in 2014 against MRSA and E coli which represent both ends of the scale of bacteria therefore proving its effectiveness against the entire range of bacteria both known and unknown. The test results are available to be viewed on our website.

How Long Does Touch Guard Last?

Touch Guard is a variant of our existing coatings, which have been applied, both internally and externally worldwide. Therefore, we have conclusive real-life durability examples notably McLaren Formula One head office, in Woking UK.

We first applied Touch Guard coatings to their internal fixtures and fittings in 2008 and continued working with them through to 2010, completing works externally. Some 12 years on, the coatings are still looking amazing and providing high levels of protection having outlived the original guarantee period, three times over.

A copy of the 2020 testimonial from McLaren can be supplied upon request.

High traffic/high touch areas such as door handles, hand rails, etc, may need re-coating periodically, but this timescale can still be measured in a minimum of 6 monthly or yearly periods.

Can Touch Guard be Re-applied?

Due to the self-annealing and self-levelling properties of our Touch Guard coatings, an additional coat can be added at any time in the future.

What Surfaces is Touch Guard Suitable For ?

Touch Guard can be applied to all hard surfaces but not Textiles / soft plastics or rubber

How is it applied?

The coating can be simply wiped on, rolled on with a high-density foam roller (the gloss roller type) or sprayed on (we recommend a HVLP spray system)



How Long Does Touch Guard Work For?

The silver ions within the coating are the driving force that resist the growth of bacteria and will not allow the virus to survive on its surface. So it is this element of the product that can be tested at any time after installation for the lifetime of the product.

As it is not viable, nor safe, to conduct a viral test outside a laboratory, we can conduct a bacterial test to ensure the silver ions are active and still doing their job, thus confirming the ability of the coating to reduce viruses as well as bacteria on the surface. This method provides a safe, accurate and speedy solution.

How is Touch Guard Maintained?

To not damage the surface of the coating nor harm the performance of the silver ions, we recommend our Touch Guard Aftercare Cleaner. This is a water based, biodegradable cleaning product, designed to clean Touch Guard treated surfaces, without damaging the coating or antimicrobial performance of the coating.

Touch Guard Aftercare will both extend the life of, and further protect the coating. Its will also safely remove dirt, dust, food, and other contaminants, which might settle on the surface of the coating.

Touch Guard Aftercare will also leave a streak-free finish with a pleasant and fresh smell.

How Will I Know if the Surface is Damaged or Worn?

If the coating gets worn down, it will be easily visible as the light refraction through the coating is different to the natural surface and worn areas will appear dull or darker.

What is the Guarantee Period for Touch Guard?

If Touch Guard is applied by a trained, authorised technician, then we provide a full 5-year guarantee along with a 2 year application guarantee.

This guarantee will be valid from the date of completion.

The guarantee shall cover all surfaces coated using Touch Guard Antimicrobial Coatings.

The initial application of Touch Guard Antimicrobial coating is guaranteed for a period of 5 years.

The guarantee shall be that the coating will not crack, peel or yellow and that the coated structure will not exhibit further staining, browning or corrosion, excluding any external damage that may occur to the coating.

Any failure of the surfaces during the guarantee period will be rectified by your supplier at no charge.

All damage caused by external forces to the coating will be excluded from this guarantee such as Incorrect cleaning chemicals used, contamination, abrasion, war, terrorist attack, fire, lightning, earthquakes and all other acts of god or terrorism.

Damage Report

Any damage should be reported immediately to your applicator, so as to enable them to repair the area as soon as possible to prevent further damage occurring to surrounding areas.



Common Problems with Fogging/Disinfectants

One of the major drawbacks of disinfectant ‘fogging’ is using fogging equipment to disperse disinfectants, which has become a common practice as businesses reopen after COVID-19 closures

This may cause permanent damage to electronic equipment.

Also, the indiscriminate nature of applying disinfectants via fogging and the residue it leaves behind are causing issues especially in the hospitality industry. We have had several conversations with restaurants and eateries that believed they were using fogging in the best interests of their staff and guests, by fogging every day. However, this left behind a residue that built up after every application.

This was subsequently found to have contaminated all areas of the establishments, including glasses, plates and cutlery.

Indeed, the disinfectant used, actually had a warning on the label, stating that if it was ingested, then medical help should be sought immediately!

Another client who, until recently, used fogging as part of their COVID response plan, has since stopped using the method, due in the main, to the sheer amount of fogging residue that had to be removed after each application.

This then necessitated a complete, full deep clean of the area, thus incurring further inconvenience and expense.

Cost Comparison

Whilst Touch Guard might be expensive to apply in the first instance, there are zero to minimal on-going costs, for the next 5 years.

However with both fogging and Nano coating treatments, there is a continual expense for each and every month of the 5 year period, far outweighing the initial Touch Guard coating cost.

With regular fogging treatment, over that same five years, the cost is approximately 5 times the initial cost of Touch Guard, and with regular Nano coating treatment, over that same five years, the cost is approximately 3 times the cost of Touch Guard.