

Offering Solutions For the Lift Industry



For Use on Lift Cars, Doors and Buttons

www.pewelectrical.com

Touch Guard Anti-Microbial Coatings is compliant to ISO 21702:2019, certified effective against all enveloped viruses, including COVID-19, the complete Coronavirus family, COV2, SARS, H1N1, Influenza, EBOLA and MERS.

Anti-microbial Coating Technology

Anti-microbial Coating Technology

A ground breaking coating technology with anti-microbial qualities, has been developed together by **BROMOCO International** and a leading bio-chemist. This virtually invisible coating is suitable for application on-site, or in the factory. This makes **Touch Anti-microbial** coating systems the first of its kind, providing high levels of long term anti-microbial protection.

What is Anti-microbial? Anti-microbial is simply the term used to describe something that has the ability to resist the growth of microbes. While the term 'anti-bacterial' refers only to bacteria, anti-microbial refers to a wider range of organisms, including bacteria, moulds, fungi and others. The anti-microbial technology is incorporated into our coating at the time of manufacture. Once incorporated, the anti-microbial additives provide continuous, built-in, anti-microbial protection for the expected lifetime of the product. The silver ions on the surface of a material treated with the coating, bind with microbes that come into contact with the surface, disrupting their normal cell function, which stops them from reproducing, thus resulting in the death of the cell.

Lift Products Protected with Touch Guard Anti-Microbial Coatings will:

Exhibit a reduction in bacteria by up to 99.99%

Even antibiotic resistant strains of bacteria such as MRSA, VRE and CRE cannot survive.

Be effective against viruses

Touch Guard Antimicrobial Coating technology is proven to deactivate the H1N1 influenza virus.

Be easier to keep hygienically clean

Thanks to Touch Guard Anti-microbial Coating, your product will have long term, round-the-clock protection against unseen microbes.

Reduce cross-contamination

A cleaner product means that there are less microbes to transfer, ultimately reducing the potential for cross contamination.

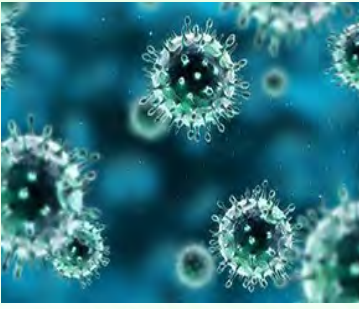
Offer lasting protection from bacteria and mould

When applied professionally, Touch Guard Anti-microbial Coating will not wash off, meaning it will last for the product's lifetime.

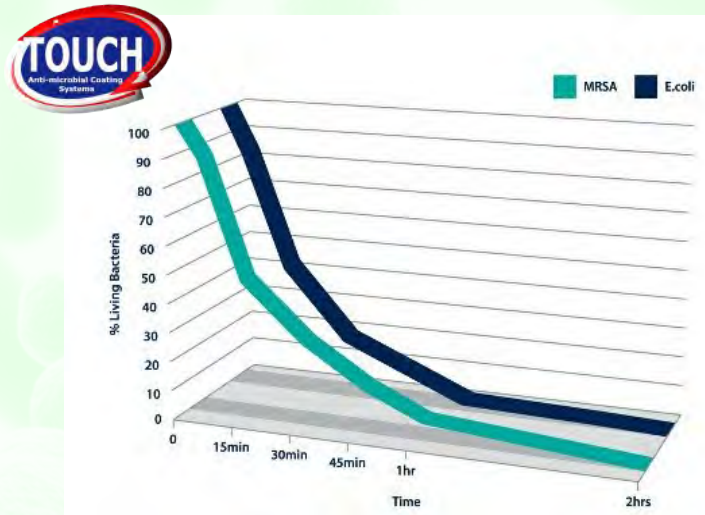
Have an extended functional lifetime

Touch Guard Anti-microbial Coating offers long term surface protection against microbial colonisation and also minimises material degradation, ultimately extending the lifetime of the product.

Anti-microbial Coating Technology



As the graph below shows, on a product treated with Touch Guard Anti-microbial Coating, the level of bacteria is reduced by up to 99% in two hours, with an 80% reduction in the first 15 minutes, compared to an unprotected surface, where they can proliferate at dramatic rates.



Tested Microbes

Anti-microbial additives have been tested and found to perform against a wide range of microbes including bacteria, fungi and viruses. Some of the most common are listed below:-

Bacteria

- Acinetobacter baumannii
- Bacillus subtilis
- Campylobacter coli
- Campylobacter jejuni
- Clostridium difficile
- E.coli
- E.coli O157
- Enterobacter aerogenes
- Enterococcus faecalis
- Legionella pneumophila
- Listeria monocytogenes
- Pseudomonas aeruginosa
- Salmonella enteritidis
- Salmonella typhimurium
- Shigella sp.
- Staph aureus
- Staph epidermidis
- Streptococcus faecalis

Multi-Drug Resistant Bacteria

- ESBL Escherichia coli
- RE Klebsiella pneumoniae
- MRSA Methicillin Resistant Staphylococcus aureus
- VRE Vancomycin Resistant Enterococcus

Fungi

Mould, Moss growth, lichens and algae

Efficacy against all of these microbes can vary and specific data is available on request.

Touch Guard - METAL PROTECTION

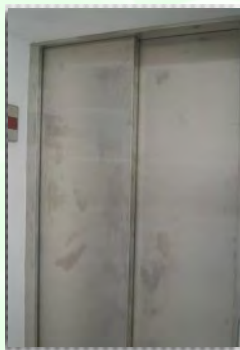
This ultra- thin coating is virtually invisible, with an average thickness of only 5 microns. It is the hardest of our coatings range, with a scratch resistance of H7 to H8 on the HB Pencil Scale. In comparison, granite has a scratch resistance of H6, making our coating two levels harder. Despite this, it still remains flexible enough to cope with the expansion and contraction of the substrate.

Our Anti-microbial technology will:

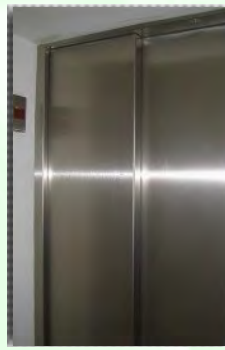
- **Make a product more hygienic**, if it is likely to host microbes harmful to human health.
- **Keep a product fresher for longer**, if it is likely to host odour-causing or staining microbes.
- **Extend the lifetime of a product**, if it is likely to host microbes that might degrade the surface.

The healing properties of silver have been known for a long time and our range of Touch Guard Anti-Microbial Coatings use these pure silver properties to control microbial growth.

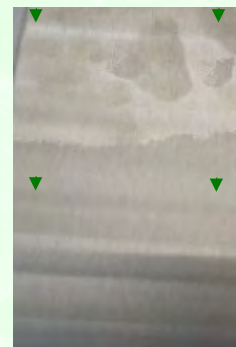
- Silver is anti-microbial
- Silver is anti-odour
- Silver is fungicidal
- Silver is non-allergenic
- Silver reduces mite growth



Un-protected



Coated and protected



Coated

Provides protection from:

Corrosion
Staining
Fingerprint
Bleaches
Acids



Other properties:

Electrical insulation (eliminates static shock)
Thermal Insulation (reduces condensation)
Scratch resistant (7H on pencil scale)
Enhances finish (virtually invisible)
Anti-microbial (see previous page)

COP's LOP's Handrails



External and Internal Applications

Stainless steel is used extensively in our world, both internally and externally. Most commonly used is the brushed finish used for its sparkle. The down side is that these items are high maintenance, whilst also having the ability to harbour germs and bacteria. Once treated with Touch Guard Anti-microbial Coating, these items will be protected and will require little or no maintenance depending on the location.

Touch Anti-microbial Coating is self-levelling and self-annealing, making it maintainable indefinitely. This is a perfect solution for areas that may be subjected to damage.

There are countless areas and items that could benefit from being treated. We have listed, but a few, below:-



Hospitals



Schools



Hotels



Supermarkets



Kitchens



Airports



Swimming Pools



Reception Areas



Gymnasiums



Washrooms



Stadiums



Public Transport

Anti-microbial Coating Technology



Touch Guard in Action

Bacteria contaminates the surface



1



Silver ions in the coating immediately act against the contaminating bacteria



2

The silver ions combine with the bacteria within proteins and in the cell walls, interfering with the DNA replication, promoting the formation of reactive oxygen species



3

Bacteria die and the surface is cleaner and more hygienic for use.



4



Products protected by anti-microbial technology will negatively affect bacteria that contaminate the surface through:-



PROTEIN DAMAGE

Proteins are essential for biological systems of life. Any damage to these components causes the failure of essential functions, such as energy production.



CELL MEMBRANE DAMAGE

By disrupting the microbe's membrane, its structural integrity is compromised, which can cause essential nutrients to leak out, causing catastrophic structural failure.



OXIDATIVE DAMAGE

Anti-microbials can cause increased levels of reactive oxygen species which result in damage to the internal system of the microbe.



DNA INTERFERENCE

The genetic material of the bacteria is disrupted, ultimately stopping the bacteria from being able to replicate by blocking the copying of their genetic material.

Touch Guard - All Surface Protection

This slightly thicker Anti-Microbial coating, at around 12 microns is virtually invisible, with a scratch resistance of H6 on the Pencil Scale. In comparison, copper which is H4, makes our coating two levels harder. Despite this, it still remains flexible enough to cope with the expansion and contraction of the substrate.

Our Anti-microbial technology will:

- **Make a product more hygienic**, if it is likely to host microbes harmful to human health.
- **Keep a product fresher for longer**, if it is likely to host odour-causing or staining microbes.
- **Extend the lifetime of a product**, if it is likely to host microbes which might degrade the surface.

The healing properties of silver have been known for a long time and the Touch Guard Anti-Microbial coatings use these pure silver properties to control microbial growth in an ideal manner:

Touch Guard All Surface Coating can be used on the following surfaces, but it might be wise to test a small area first:-

- Powder coated surfaces
- Painted Surfaces
- Plastic coated items
- Wood
- UPVC Windows and Handles
- Plastic Light switches
- Plastic Electrical points
- Ceramics
- Tile Grout
- Hard plastics (test a small area first)
- Copper
- Brass
- Radiators
- Ventilation grills
- Ventilation ducts

Touch Guard All Surface Coating is resistant to:

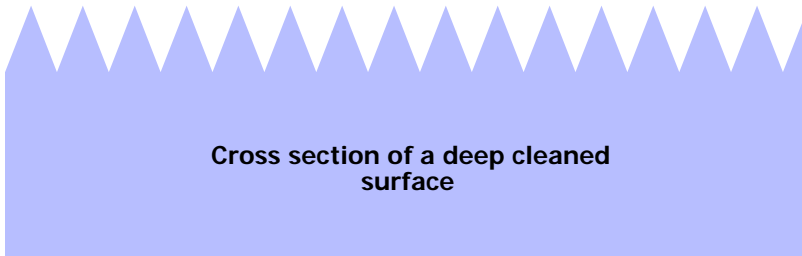
1. Bleach
2. Acids
3. Bird droppings
4. Staining

Applied correctly Touch Coatings are guaranteed to NOT crack, peel or discolour



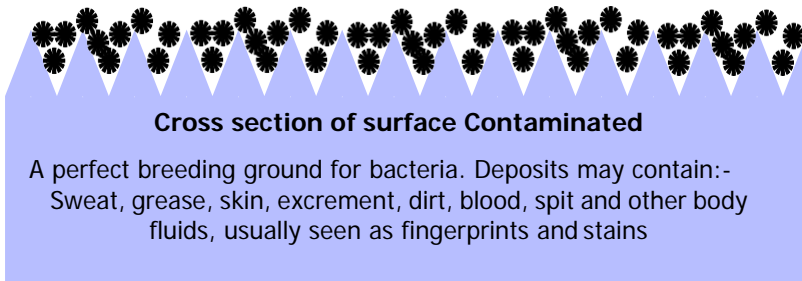
Touch Anti-microbial Coatings versus traditional cleaning methods

Cross section of a deep cleaned surface



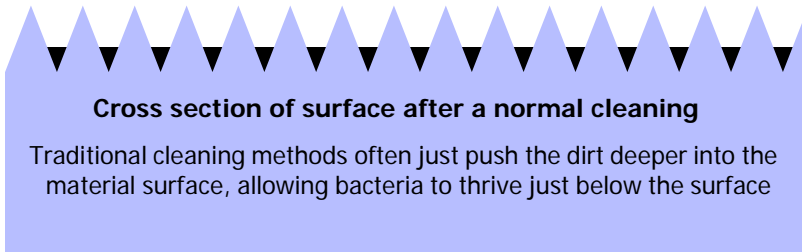
Cross section of surface Contaminated

A perfect breeding ground for bacteria. Deposits may contain:-
Sweat, grease, skin, excrement, dirt, blood, spit and other body fluids, usually seen as fingerprints and stains



Cross section of surface after a normal cleaning

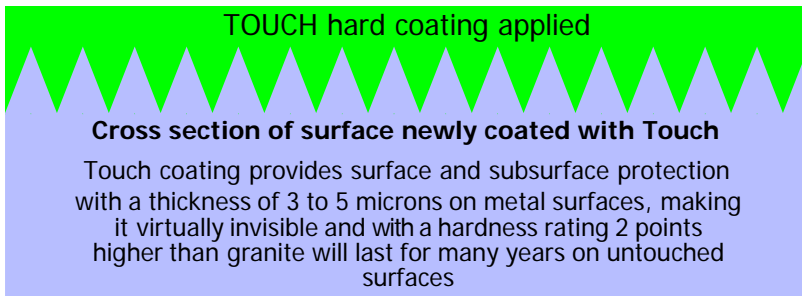
Traditional cleaning methods often just push the dirt deeper into the material surface, allowing bacteria to thrive just below the surface



TOUCH hard coating applied

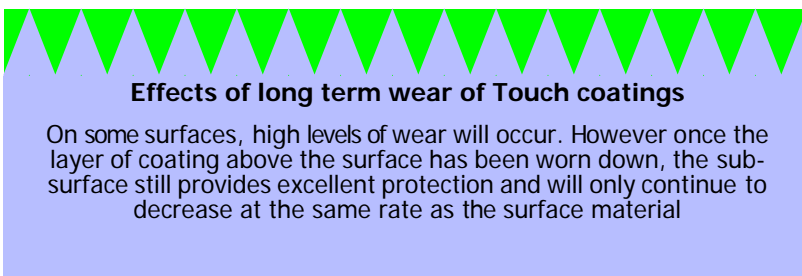
Cross section of surface newly coated with Touch

Touch coating provides surface and subsurface protection with a thickness of 3 to 5 microns on metal surfaces, making it virtually invisible and with a hardness rating 2 points higher than granite will last for many years on untouched surfaces



Effects of long term wear of Touch coatings

On some surfaces, high levels of wear will occur. However once the layer of coating above the surface has been worn down, the sub-surface still provides excellent protection and will only continue to decrease at the same rate as the surface material



Traditional Cleaning Methods

Traditional cleaning methods can result in forcing contamination deeper into the surface of the substrate.

This is combined with the increased prevalence of antibiotic resistance and reports that cleaning agents are having a reduced effect on microbial colonisation

Long term effects of wear

Most hard surfaces are porous and can harbour germs and dirt. However, **Touch Guard** Coatings are absorbed into the surface and provide high levels of protection below the surface. *(As shown here)*

Making the surface fingerprint and stain resistant for many years after the top coat has worn thinner.