



Offering Solutions For the Lift Industry

Back to Work
Solutions



For Use In Lift Cars

Anti-microbial Coating Technology

Anti-microbial Coating Technology



Our ground breaking coating technology with anti-microbial qualities has been developed together by **BROMOCO International** and our 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.

Anti-microbial is simply the term used to describe something that has the ability to resist the growth of microbes. While the term 'antibacterial' 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 provides 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 and results in the death of the cell.

Products protected with **TOUCH Antimicrobial** coating will:

Reduce bacteria by up to 99.99%

Even antibiotic resistant strains of bacteria such as MRSA, VRE and CRE cannot survive on **TOUCH Antimicrobial** coated products.

Be proven against mould

TOUCH Antimicrobial coating creates products upon which unsightly and unpleasant mould such as *Aspergillus niger* cannot survive.

Be effective against viruses

TOUCH Antimicrobial coatings technology is proven to deactivate the H1N1 influenza virus.

Reduce cross-contamination

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

Stay fresh for longer

Less microbes mean reduced potential for staining and unpleasant odours, so your product stays fresher for longer, increasing its functional life cycle.

Have an extended functional lifetime

Lasting **TOUCH Antimicrobial** surface protection against microbial colonisation also minimises material degradation, ultimately extending the lifetime of the product.

Be easier to keep hygienically clean

Thanks to **TOUCH Antimicrobial** coating your product will have around-the-clock protection against unseen microbes, permanently.

Be safe to use in a variety of environments

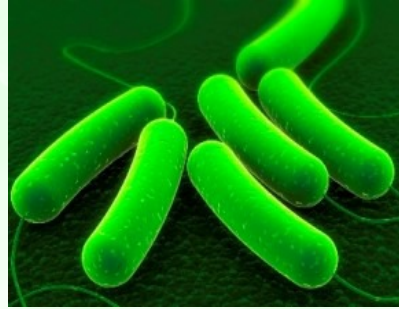
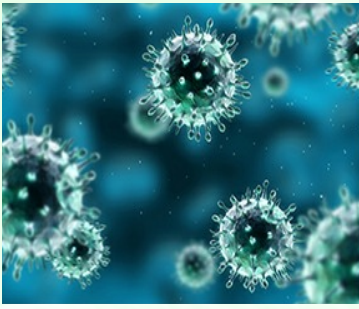
The supply of the right antimicrobial additive means your TOUCH Antimicrobial protected product can be used as it always has been without risk or concern.

Offer lasting protection from bacteria and mould

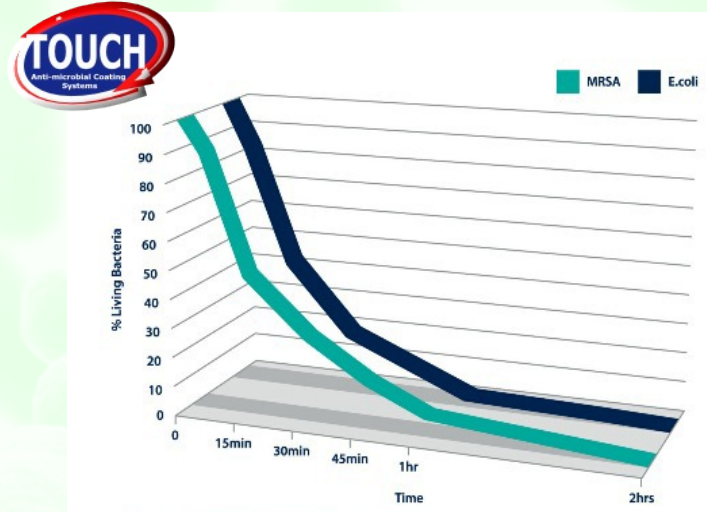
Introduced during the manufacturing process, **TOUCH Antimicrobial** coating will not wash off, meaning it will last for the product's lifetime.

www.pewelectrical.com

Anti-microbial Coating Technology



As the graph below shows, on a product treated with Touch Anti-microbial coating systems 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 are available on request.

www.pewelectrical.com

Touch METAL PROTECTION

This ultra thin coating is virtually invisible with an average thickness of only 5 microns is the hardest of our coating range with a scratch resistance of H7 to H8 on the HB Pencil Scale, in comparison granite which is H6, making our coating 2 two points 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 Antibacterial** coatings use these pure silver properties conferred to control microbial growth in an ideal manner:

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



Provides protection from:

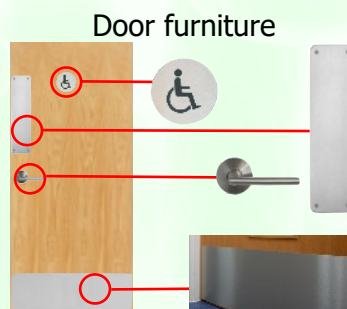
Corrosion
Staining
Fingerprint
Bleaches
Acids

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)



Sanitary ware



Door furniture



Doors

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, the items will be protected and will require little or no maintenance depending on the location.

Touch is self levelling and self annealing making it maintainable indefinitely. Perfect 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

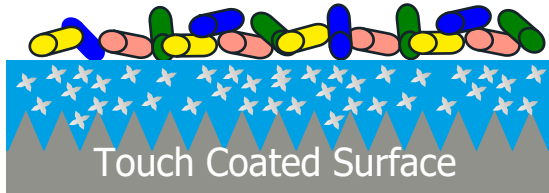


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TOUCH Coatings In ACTION

Bacteria Contaminates the surface



1

Silver ions in the coating immediately act against the contaminating bacteria



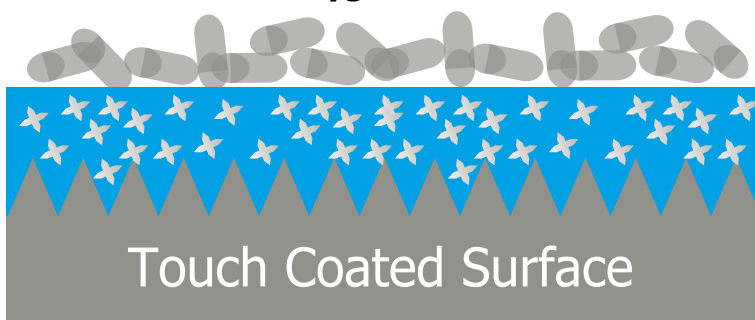
2

The silver ions combine with the bacterial within proteins and in the cell walls interfering with the DNA replication and promote 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 microbes membrane its structural integrity is compromised which can cause essential nutrients to leak out and 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 ALL Hard surface PROTECTION

This slightly thicker coating at around 12 microns is virtually invisible with a scratch resistance of H5 on the Pencil Scale, in comparison copper which is H 4, making our coating two harder. Despite this it still remains flexible enough to cope with the expansion and contraction of the substrate.

Our Anti-microbial technology will:

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- **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 Antibacterial** coatings use these pure silver properties conferred to control microbial growth in an ideal manner:

Touch All Surface can be used on:

- **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 all surface may be applied to any hard surface but always test a small area first

Touch All Surface 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 a hardness rating 2 points higher than granite will last for many years on untouched surfaces

Effects of long term ware of Touch coatings

On surfaces that receive high use ware will occur however once the layer of coating above the surface has been worn down however the sub-surface is still providing excellent protection and will only continue to decrease at the same rate as surface material

Traditional Cleaning Methods

Traditional cleaning methods can result in forcing contamination deeper into the surface of the substrate this combined increased prevalence of antibiotic resistance and reports that cleaning agents are having a reduced effect on microbial colonisation

Long term effects of ware

Most hard surfaces are porous and can harbour germs and dirt.

Touch Coatings are absorbed into the surface and provide high levels of protection below the surface.

Making the surface fingerprint and stain resistant for many years after the top coat has worn thinner. *(As shown here)*