



**KCC**  
GROUP

**Antimicrobial solutions  
for infection control**

A close-up photograph of a hand pulling a vertical stainless steel door handle. The handle is highly reflective and shows some signs of use. To the right, a white rectangular sign with the word 'PULL' in bold black capital letters is attached to the door. The background is blurred, showing more of the door and a person's head in the distance.

**Infection Control**

# **Antimicrobial Hardware**

We offer a ground breaking coating technology with anti-microbial qualities, developed by Bromoco International and leading biochemists and used internationally for anti-microbial protection. This virtually invisible coating is suitable for application either on-site, or in the factory, making it an ideal solution for both new buildings and retrofit projects.

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.

# Hygiene control in all buildings has never been more important

Surfaces that are frequently touched are most likely to be harbouring highly contagious diseases such as COVID-19, especially in hospitals or heavy traffic areas of buildings.

Scientists have confirmed that COVID-19 can survive on surfaces for several days, citing that it can live on door handles for up to an alarming nine days.

As a result, there's never been a better time to consider the use of antimicrobial coatings on frequently touched surfaces at your site, such as buttons, push pads and door handles, to help reduce the risk and spread of Coronavirus between door users. Our antimicrobial coating uses silver ion technology to kill bacteria and viruses. It has been tested and proven effective against the H1N1 virus (which has very similar characteristics as Coronavirus), achieving a 99.99% reduction in viable H1N1 virus particles.

The application process is quick with very little disruption. A whole floor of a building can be treated in a night shift and ready for use the next morning providing 24 hour 365 day protection. For ironmongery it is a single coat application which dries within 30 minutes depending on room temperature.

## Common Applications

### Metal surfaces

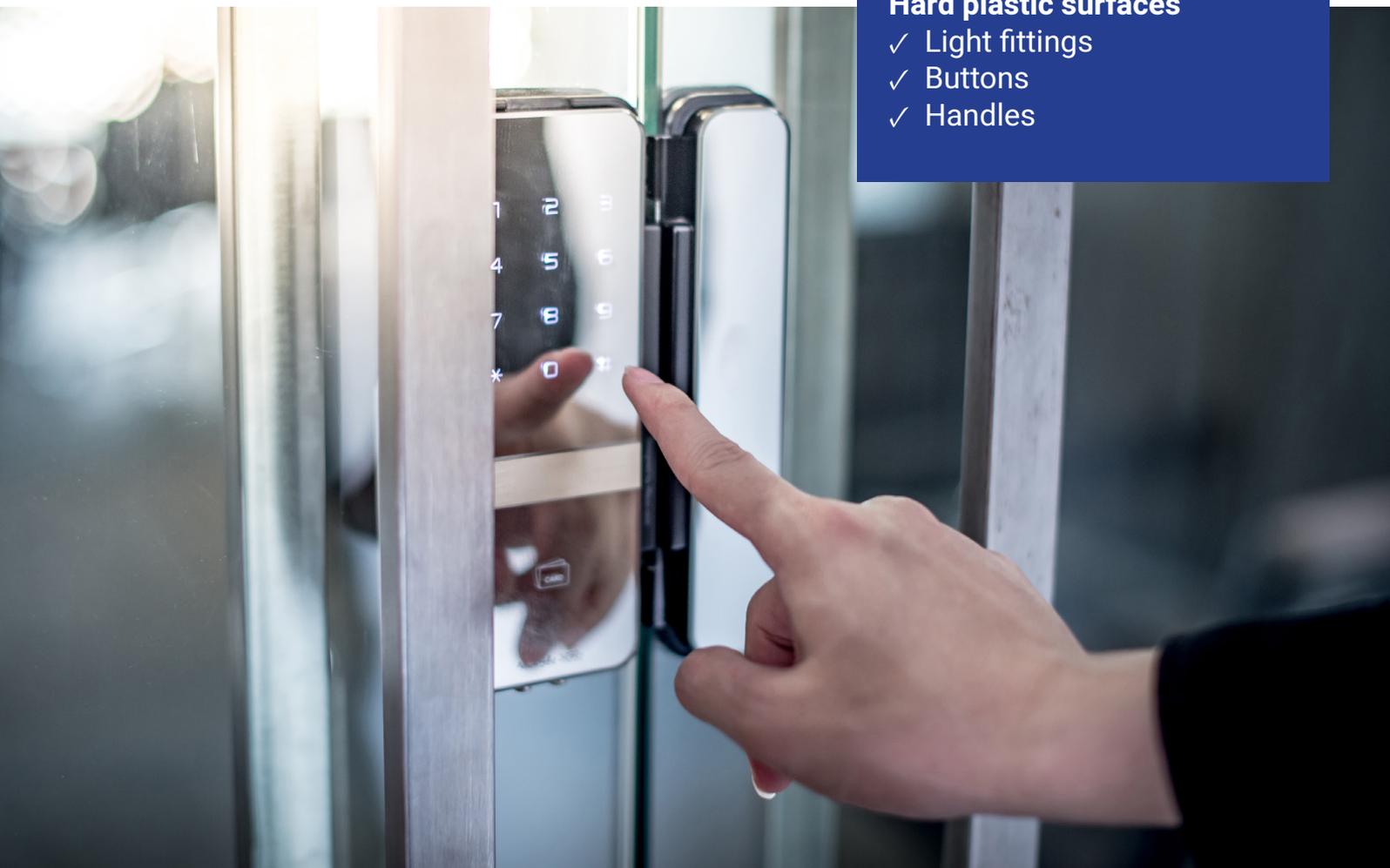
- ✓ Door handles
- ✓ Light fittings
- ✓ Lift buttons
- ✓ Push pads

### Powder coated surfaces

- ✓ Window furniture
- ✓ Radiators
- ✓ Window frames
- ✓ Office furniture

### Hard plastic surfaces

- ✓ Light fittings
- ✓ Buttons
- ✓ Handles



# Key benefits

This virtually invisible coating can be applied to any hard surface in or on your building at only 3 to 5 microns thick with a scratch resistance 2 points harder than granite. The scientifically proven antimicrobial technology will provide lasting and effective protection against harmful bacteria, mould, fungi and viruses by up to 99.99%, ultimately helping your paint or coating to minimise staining, bad odours and material degradation on any surface it is applied to. The coating can be applied in situ to common contact surfaces within all busy environments, such as elevator buttons/cabins and doors, light switches, door handles/ push pads, wall concrete, hard plastics and any other hard surface without the need to remove or replace the items. Ultimately reducing the risk of cross-contamination and complimenting existing hygiene protocols.

## 1. Reduction of bacteria by 99.9%

Provides high levels of resistant, even antibiotic-resistant strains of bacteria such as MRSA, VRE and CRE cannot survive on protected products

## 2. Anti-fingerprint protection

Provides built-in anti-fingerprint technology which makes textured and porous surfaces easier to wipe clean.

## 3. Prevents growth of mould

Prevents the growth of unsightly and unpleasant mould such as *Aspergillus niger* cannot survive.

## 4. Defending against viruses

Proven to deactivate the H1N1 influenza virus.

## 5. Seals porous surfaces preventing ingress

Seals the surface of porous or textured surfaces making them easier to clean and maintain as well as providing bacterial protection below the surface.

## 6. Reduces risk of cross contamination

Provides a cleaner surface which means less microbes to transfer, ultimately reducing cross contamination.

## 7. Restores & Enhances

Enhances and restores the original colour and lustre of the substrate it protects

## 8. Reduces Odour

Reduction of microbes means reduced potential for unpleasant odours, so the surfaces stay fresh, increasing its functional life cycle.

## 9. Increases product lifespan

Provides lasting surface protection against microbial colonisation also minimises material degradation, ultimately extending the lifetime of the product.

## 10. 24 hour protection

Permanently provides around-the-clock protection against unseen microbes.

## 11. UV protection & colour fade

Has built in UV blockers that protect the surface from UV degradation and fade as well as preventing the coating from yellowing or discolouring.

## 12. Indefinitely maintainable

Can be maintained indefinitely due to its self annealing properties

## 13. Guaranteed to not crack or peel

Will remain flexible coping with the natural expansion and contraction of the surface it is protecting.

## 14. High scratch resistance

Has scratch resistances as high as H8 on the "pencil scale" where granite is H6

## 15. 10 year proven coating technology

Coating technology has been used for over 2 decades and has more than twice outlived its original guarantees.

# How does it work?

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.



- 1.** Bacteria contaminates a surface from contact with source such as a person's hands or fingers



- 2.** Silver ions in the antimicrobial coating immediately act against the contaminating bacteria.



- 3.** On the coated surface, 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.



- 4.** The bacteria die creating a safer, cleaner, more hygienic surface for use.

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