

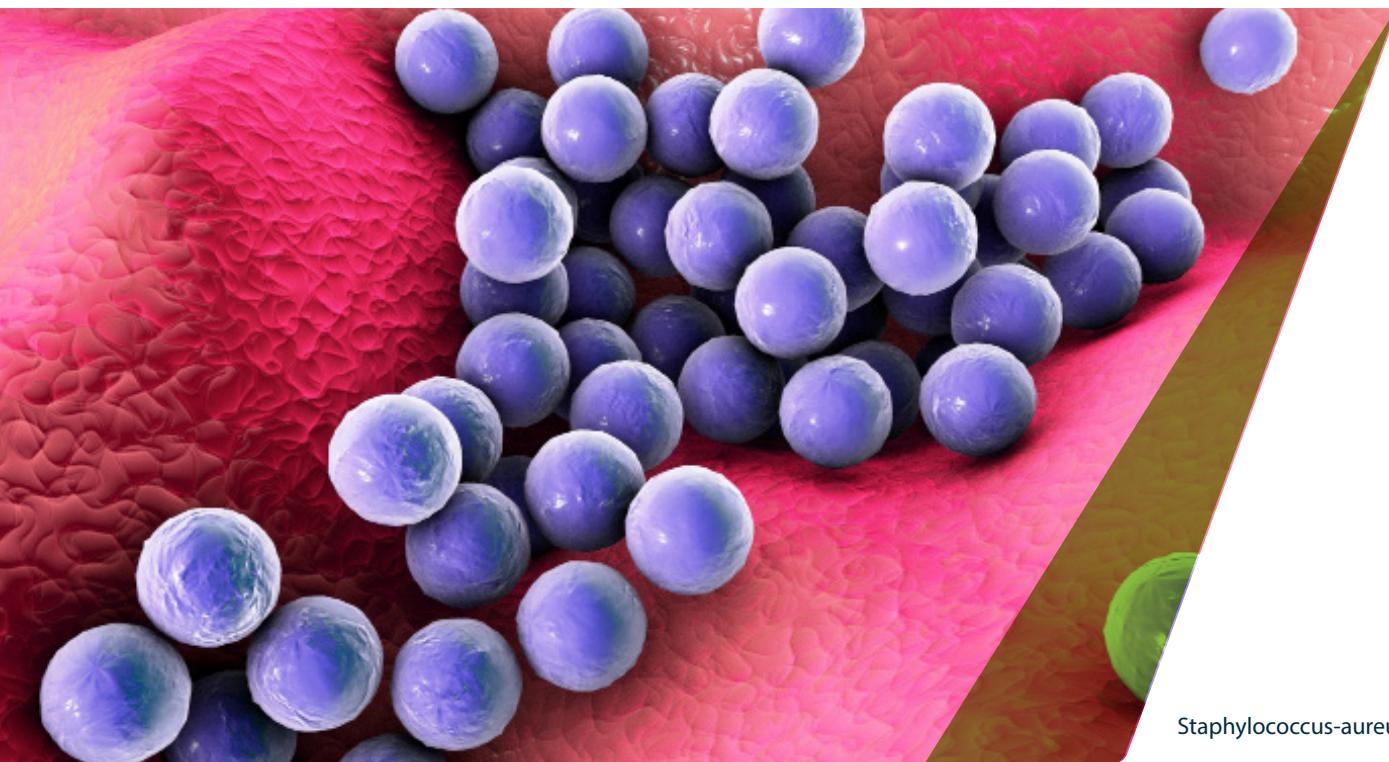
Anti-microbial Coating for door handles and hardware



A product from the Dortrend
International range.

www.dortrend.co.uk

 **TouchClean**



Staphylococcus-aureus

Door Hardware Spread Microbes

It is encouraging to see the reduction in instances of MRSA and subsequent reduction in mortality in the health services over recent years.

However the number of infections remain significant. Simple solutions like educating staff and visitors to wash their hands thoroughly and regularly often does not have a lasting impact.

Having touch surfaces that self clean preventing microbes from spreading will have a significant and lasting contribution to reducing infections.

Door Handles are a major contributor to the spread of bacteria and viruses, depending on the frequency of use, temperature and humidity, large colonies can survive on handles for relatively long periods.

TouchClean offers a solution to the

specific threat posed by microbes on door handles. Our factory applied coating has been independently tested by UK and European test houses in "real world" tests (tested applied not just a liquid test).

It has acquired very good results against coronavirus and various other bacteria and viruses. Test certificates are available on request.

A very large colony of *Staphylococcus aureus* [much larger than would be possible in normal conditions] was applied to a stainless-steel disc coated with TouchClean a 99.99 % kill rate was achieved.

An interesting if not a little worrying study of 400 internal toilet doors in 136 airport washrooms in 59 countries* that were swabbed and subsequently analysed showed substantial amounts

of bacteria deposited on the door handles.

The majority of bacteria found was *staphylococcus aureus* however substantial amounts of bacteria showing the common signs of faecal contamination were also detected, a clear sign travellers are not washing their hands after using the toilets.

Most worrying fact however was the discovery of bacteria that is resistant to antibiotics and is being spread around the globe.

Recent tests against coronavirus showed efficacy against the virus in ambient light and large reductions in minutes. Get in touch to learn more.

Fitting TouchClean door hardware helps combat this threat to health.

Uses for TouchClean hardware



Hospitals/Medical

Door handles in hospitals can spread microbes to patients with compromised immunity and this vulnerability can mean longer stays in hospital or unwanted outcomes.



Washrooms

Public washrooms are a prime source of microbes and with several studies revealing that around 40% of people visiting facilities do not wash their hands a microbe killing handle is essential to preventing the spread of harmful bacteria.



Public places

Buildings where large numbers of people congregate greatly increases the potential for the spread of microbes as untreated handles will quickly spread an infection or virus eventually reaching people with reduced immunity.



Residential

Bacterial infections in seniors can have serious outcomes particularly for those with reduced immunity, and fitting TouchClean handles can contribute to the reduction in the spread of microbes.



Dentists and general practice

Hygiene is vital in these establishments as microbes can be deposited on handles and spread widely in high traffic areas.

TouchClean handles will prevent this.

Key Points

TouchClean



Safe and friendly to the environment titanium is a natural and common material and is used in cosmetics, paint, the treatment of acne and tooth whitening amongst many other uses.



TouchClean anti-microbial coating does not alter the appearance of the host product and therefore products throughout the project match.



Unique self-cleaning action prevents dirt and grease from sticking to the surface which lessens the need for strong environmentally unfriendly chemical cleaning products.



Factory applied in strictly controlled conditions to top quality door fittings, Dortrend has been applying TouchClean anti-microbial coating for over ten years quality is assured and fully audited.



TouchClean has been successfully independently tested in the UK, Germany and Japan, being scientifically proven to kill bacteria leaving no surface residue. Details and testing and certification are available on request.



TouchClean anti-microbial coating comes with a 5 year guarantee whilst still being competitively priced compared with other solutions.

TouchClean Projects

Dortrend has a long and proven track record of completing all sizes and types of projects on time.

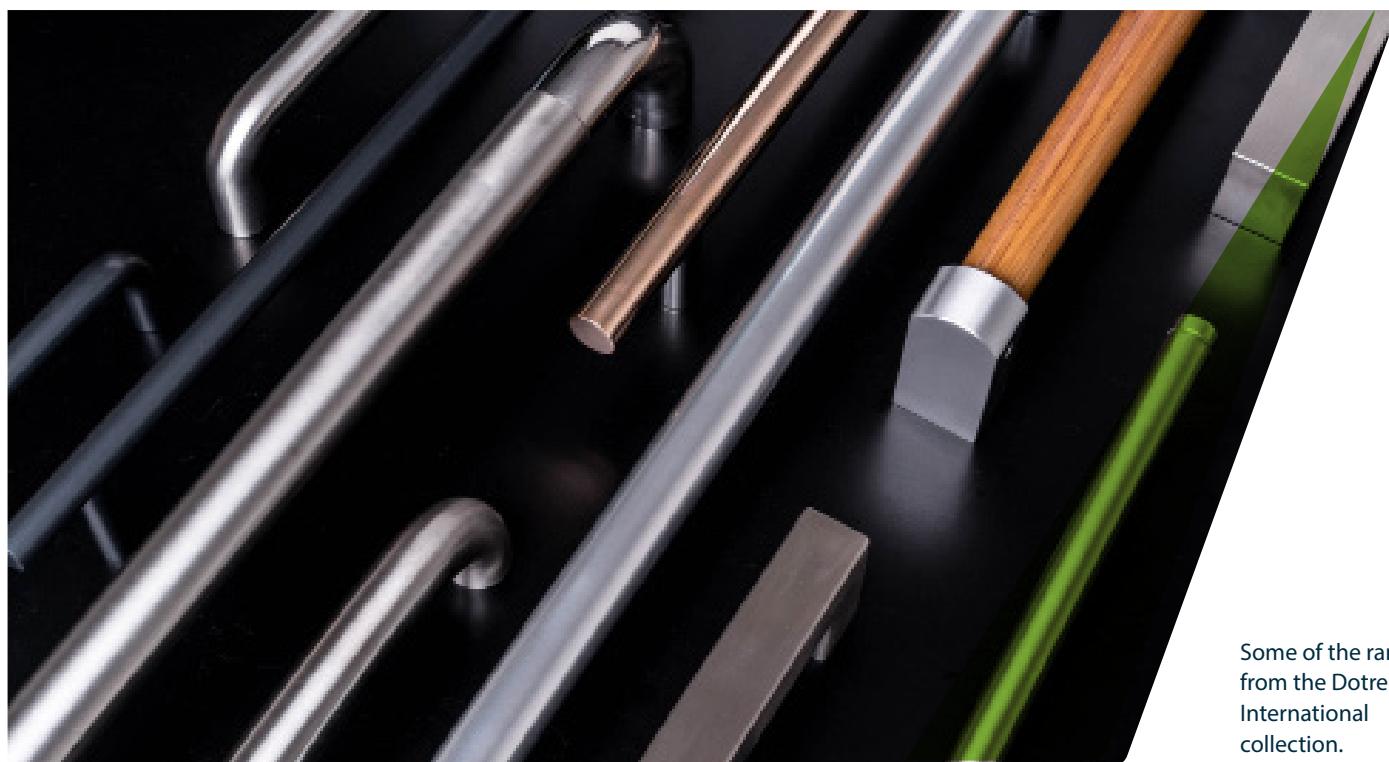
Below is a short list of some of a wide range of projects we have supplied in cooperation with our partners on a variety of different hardware products.

UK

Queens Medical Centre Nottingham
University College Hospital London
Royal Veterinary Centre Hatfield
University of Glamorgan Halls of Residence
Royal Gwent Hospital Newport
Broomfield Hospital Chelmsford
Diana Princess of Wales Hospital Grimsby
Royal Pilgrim Hospital Boston
St Ebbas MHU Epsom
Freemans Hospital Newcastle upon Tyne
Enniskillen Hospital Northern Ireland
Kent and Medway Mental Health Trust

International

Al Wakrah Hospital Qatar
Curaheen Hospital Cork
Jan Palfijn Hospital Ghent Belgium
Geraardsbergen Hospital Belgium
Centre de soins ter Hovingen Ghent Belgium
Ecole OLP Bornhem Belgium



Some of the range from the Dotrend International collection.

Available on a large range of Dortrend Products



EQUALITY DOOR
HANDLE RANGE

Available on our range of lever handles and pull handles designed for the less physically able.



LIGATURE RESISTANT
RANGE

Products designed for mental health units, a full range of door hardware and washroom fittings with anti-ligature properties all designed in conjunction with Mental Health professionals and all available with TouchClean coating.



LEVER AND
PULL HANDLES

Available on our full range of lever handles, pull handles and accessories with solutions to all projects, from commercial to the most prestigious. Levers and pulls available in bespoke specifications and sizes as well as a full range of off the shelf products, all supported by a full range of accessories.



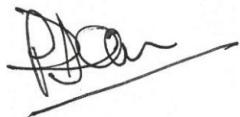
SUB CONTRACT
COATING

Where Dortrend does not offer a product from its range we can coat products on free issue basis so that the specifying partner can give the client a full offer on the project dependent on their needs.

State of the art Japanese Technology

When I travelled to Japan to learn about Tio2 I soon realised that Photocatalyst technology is a thriving industry in Japan with countless uses and limitless possibilities which ranged from self cleaning buildings, tooth whitening, self-cleaning road signs and crash barriers, preventing sick building syndrome, cleaning rivers and preventing legionnaires disease.

However it was important to focus on what I had travelled to find, a microbe killing coating superior to other solutions that does not damage the environment, this product we named TouchClean and over nearly a decade it has become a big success killing bacteria on handles opening doors worldwide.



Philip Dean
Managing Director

We apply TouchClean in-house in controlled conditions and it can be applied to any substrate.



We can apply TouchClean to small components through to very large items.

Escutcheons and 2.1metre pull handles pictured going through the coating process.



Large blue ligature resistant drop-down support rails ready to be coated with TouchClean which can be applied to most hard surfaces.



Components entering the catalytic oven part of the process of applying TouchClean.

Although we supply a wide range of door fittings we can coat free issue items relating to architectural hardware or non-hardware products.

Contact us to discuss your project in detail by phone on 01299 872837 or online at sales@dortrend.co.uk

We have been manufacturing top quality door fittings since 1972 and have supplied TouchClean coated handles worldwide

How does TouchClean work?

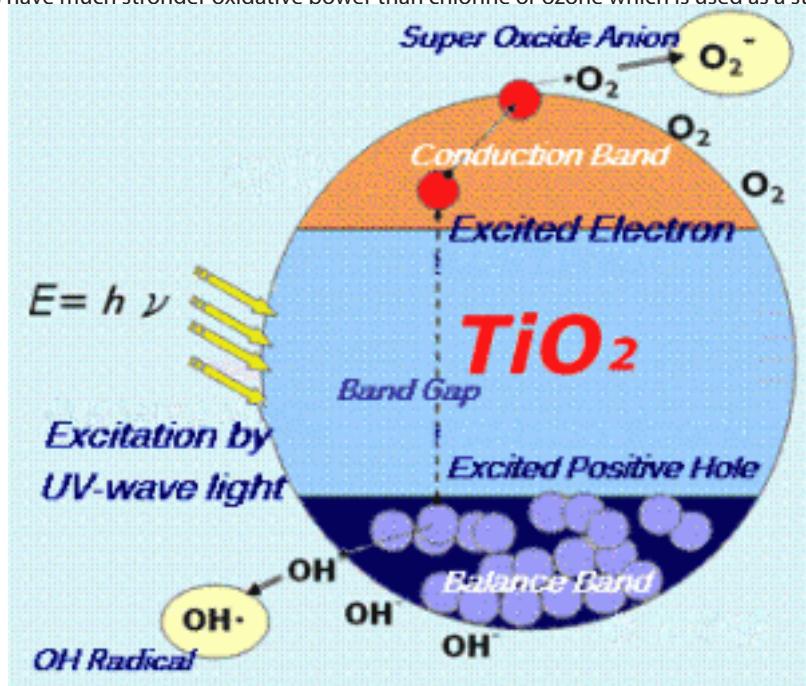
The Technology

TouchClean is made from titanium oxide which is a photocatalyst that exhibits strong oxidative properties when exposed to [uv] light. It is able to decompose harmful organic compounds, kill microbes and eliminate odours. This reactivity is used in many environmentally beneficial applications including water purification, atmospheric nitrogen oxide removal and self-cleaning buildings.

When TouchClean [TiO₂] absorbs UV light electrons are created from the valence band to the conduction band producing holes in the valence band. The production of pairs of negative electrons and positive holes which is called photo-excitation the holes in the valence band react with hydroxides on the surface of the titanium dioxide surface by subtracting its electron the result is oxidising to form Hydroxyl radicals.

When bacteria lands on the surface it is absorbed the hydroxyl radical attacks it and extracts a hydrogen atom the hydroxyl radical oxidises the bacteria producing water, carbon dioxide and other harmless substances. Touch clean now has additives that allow it work in no light or low light and recent tests show it in action,

Hydroxyl radicals have much stronger oxidative power than chlorine or ozone which is used as a steriliser.



Contact us

TouchClean
Dortrend International Limited
86a Blackpole West Trading Estate
Worcester
Worcestershire
WR3 8TJ
United Kingdom

tel: +44 (0) 1299 827837
fax: +44 (0) 1299 827094

email: sales@dortrend.co.uk
web: www.dortrend.co.uk

A product from the
Dortrend International range.

