

Poole Waite's Antimicrobial coating featuring BioCote[®] technology

Why BioCote[®]?

BioCote[®] is the market leader with 20+ years' experience. Their Antimicrobial Technology provides built in protection for the expected lifetime of the product and has been proven effective against many microbes including (but not limited to): *Staphylococcus aureus*, *E-Coli*, *Salmonella*, *Listeria*, *Legionella*, *Campylobacter*, *Pseudomonas*, *Shigella*, *H1N1 virus* and *Aspergillus Niger*.

CASE STUDY - SCHOOL

96% REDUCTION IN BACTERIA
20% DECREASE IN PUPIL ABSENTEEISM

CASE STUDY - HOSPITAL

BIOCOTE ANTIMICROBIAL PROTECTED MATERIALS
REGULARLY DEMONSTRATE **REDUCTIONS**
IN E. COLI & S. AUREUS
GREATER THAN **99%**

CASE STUDY - CARE HOME

97.2% THE DIFFERENCE IN
BACTERIAL COUNTS
BETWEEN **BIOCOTE[®]**
TREATED & UNTREATED BEDROOM
PRODUCTS

HOW WELL DOES BIOCOTE[®] WORK?

BioCote[®] protection is **permanent**, it provides built in protection for the expected **lifetime** of your product.

BioCote[®] provides **continuous**, around the clock protection against microbial colonisation.

BioCote[®] additives or products containing them **do not** cause antibiotic resistant bacteria.

BioCote[®] has been proven to reduce the number of bacteria on a protected product by as much as **80% in 15 minutes** and **99.5% in just 2 hours**.

BioCote[®] has been proven to **reduce the presence of microbes** on a protected product by **up to 99.99%**

BioCote[®] is available for specification on new installations in a variety of finishes including RAL colours. A re-coat service is also available to add this extremely effective protection to existing ironmongery. The antimicrobial additive of BioCote[®] can also be mixed into paint products offering even greater environmental protection.

Further information >>

Why BioCote[®]?

BioCote[®] provides **built in protection** for the expected lifetime of the product. Used in conjunction with door furniture and ironmongery and you're providing a significantly healthier environment for a building's users.

Use of BioCote[®] in buildings such as schools has seen a **96% reduction in bacteria** present and a **20% decrease in pupil absenteeism**. Transfer those figures to office blocks, care homes, hospitals - anywhere with human traffic - **and the benefits become crystal clear!!**

Key Points:

- » Microbes are tiny living organisms which only have 1 cell. They are the earliest form of life on earth.
- » A virus is an infectious particle surrounded by a protective coat made of proteins. Some viruses also have a secondary spikey coat. Viruses can only survive (form proteins and replicate) in other living organisms.
- » They can get into your bloodstream, if you have a cut, by touching an infected surface.
- » Antibacterial vs antimicrobial - antibacterial only kills bacteria, whilst antimicrobial kills mould, fungi, viruses and bacteria as well as nasty odours.
- » Some bacteria (i.e. Klebsiella) can live on surfaces for a number of months.
- » **IF YOU TOUCH UNTREATED DOOR FURNITURE, IT IS POTENTIALLY THE SAME AS HAVING SHAKEN HANDS WITH HUNDREDS OF PEOPLE!**
- » Using BioCote will reduce the risk of cross contamination.

BioCote[®] Durability Testing

Test results were excellent:

- » Salt Spray test 250 hours: **Pass** - no corrosion creep more than 2mm from scribe.
- » Cyclic Humidity 1,000 hours: **Pass** - no blistering or loss of gloss.
- » Distilled Water Immersion 240 hours: **Pass** - no blistering or loss of gloss.
- » Exterior Durability: **Excellent** - non-chalking, no film breakdown or reduction in protective properties.
- » Chemical Resistance: **Excellent** - generally excellent resistance to most acids, alkalines and oils at normal temperatures.

BioCote® is highly effective against:

**Multi Drug Resistant Bacteria
 (Super Bugs)**

MDR Bacteria	Information
<i>Extended Spectrum Beta Lactamase</i>	An enzyme or type of chemical produced by some bacteria. ESBL enzymes cause some antibiotics not to work for treating bacterial infections. With ESBL infections, some common antibiotics, such as cephalosporin and penicillin, can become useless. The most common types of bacteria that produce ESBL includes:
<i>Escherichia Coli (better known as E-Coli)</i>	E-coli is found in the digestive tract and transmitted through poop (and not washing your hands). It can last on a surface from just a few hours to a whole day. The infection can last up to 4 weeks. This is a normally harmless bacteria that lives in your gut, but it can cause pneumonia, UTIs and severe bloodstream infections. Spread from person to person via bodily fluids (blood, urine, faeces or phlegm)
<i>Klebsiella</i>	This is another harmless bacterium that lives in your mouth, nose, and gut. But it can also cause conditions such as pneumonia, septicaemia, UTIs, wound infections and ICU infections. It's been found in colonies in hospital environments and can cause infections within hospitals to spread. It can survive for several months.
<i>CRE Klebsiella pneumonia</i>	A group of germs that live in the gut (related to e-coli). They can mutate and become resistant to antibiotics. Some CRE are resistant to so many medications that they are untreatable. Up to half of infected patients may die. If these germs move outside of your gut, they can cause deadly infections such as pneumonia and meningitis. The spread of these "superbugs" are more typically found in people who are sick, hospitalized, or living in a nursing home. Very dangerous for people who have weakened immune systems. CRE can hitch a ride on the hands of doctors and nurses. They can also live on doorknobs and handles. Incubation period is 1-3 weeks
<i>Carbapenem Resistant Enterobacteriaceae</i>	A group of germs that live in the gut (related to e-coli). Some CRE are resistant to so many medications that they are untreatable. Up to half of infected patients may die. If these germs move outside of your gut, they can cause deadly infections such as pneumonia and meningitis. The spread of these "superbugs" are more typically found in people who are sick, hospitalized, or living in a nursing home. Very dangerous for people who have weakened immune systems. CRE can hitch a ride on the hands of doctors and nurses. They can also live on doorknobs and handles.
<i>Methicillin Resistant Staphylococcus Aureus (MRSA)</i>	A bacterium that causes infections anywhere on the body. It is resistant to some common antibiotics. Most often it is mild but can cause more serious skin infections, surgical wound infections, bloodstream infections and infections of the lungs and urinary tract. You can get MRSA from human contact or by touching objects which have the bacteria on them. Can last on a door handle for several weeks. Can be caught through urine and faeces.

Multi Drug Resistant Bacteria (Super Drugs) cont;

MDR Bacteria	Information
<i>VRE Vancomycin Resistant Enterococcus</i>	A bacterium that is resistant to the strong vancomycin antibiotic.

Bacteria

Bacteria	Information
<i>Acinetobacter baumannii</i>	Particularly serious in children. Can cause prolonged disabilities and death. The bacteria can infect the brain, blood, heart and bones/joints. It can be spread through direct contact with surfaces, objects and skin. Can survive for 6 days on dry filter paper, 13 days on formica, more than 7 days on glass and more than 25 days on cotton. Found in soil, water and in hospitals.
<i>Campylobacter coli/jejuni</i>	Causes Gastroenteritis – can be passed on if someone doesn't wash their hands properly after using the bathroom.
<i>Clostridium difficile</i> (excluding spore form) <i>C-diff</i>	Can cause severe diarrhoea and colitis. Usually affects people already on antibiotics for another infection and is highly contagious from human touch or from objects.
<i>Escherichia coli</i> O157 <i>E-Coli</i> O157	A form of E-Coli. Can cause severe stomach pain, bloody diarrhoea and even kidney failure. Most commonly found in the gut and faeces of animals (particularly cows). Caught through eating contaminated food, contact with infected animals, other people who are infected with lack of hand washing.
<i>Enterobacter aerogenes</i>	Can cause gastrointestinal infections, UTIs, skin infections, respiratory infections and adult meningitis. Spread through contaminated food or water, and through human to human contact.
<i>Enterococcus faecalis</i>	The bacteria is found in faeces, so if good hand hygiene is not adhered to, it can easily be transmitted on DOOR KNOBS, telephones, keyboards etc.
<i>Legionella pneumophila</i> – Legionnaires Disease	Found in water systems like shower heads and sink taps, and water fountains. Causes lung problems.
<i>Listeria monocytogenes</i>	Found in soil, water and animal faeces. Not contagious from person to person.

Bacteria cont;

Bacteria	Information
<i>Pseudomonas auruginosa</i>	Most common for people who have been in hospital for more than 1 week. It causes pneumonia, UWTIs and are quite complicated and can be life threatening, especially for people with a compromised immune system.
<i>Salmonella enteritidis / typhimurium</i>	Food borne illness causing sickness, diarrhoea and stomach cramps. Can last on door handles for around 24 hours.
<i>Shigella spp.</i>	Closely related to E-Coli. Affects the digestive system and spread through contaminated food or water or through contact with infected faeces. Most severe in young children and complications can include blood poisoning.
<i>Staphylococcus aureus</i>	This is the most dangerous strain of Staph infections. Spread by having direct contact with an infected person, by using a contaminated object or by inhaling infected droplets through coughing and sneezing. This bacterium can survive between 1 week and up to 3 years! Can cause minor skin infections right through to life-threatening diseases such as pneumonia, meningitis, toxic shock syndrome and sepsis.
<i>Staphylococcus epidermidis</i>	The Staph bacteria can be found in healthy people. Most bacteria are transmitted from person to person but can be transferred from objects, such as clothes, sinks and other objects.
<i>Streptococcus faecalis</i>	Causes endocarditis, UTIs, cellulitis and wound infections. Spread person to person through poor hygiene as this bacterium is found in faces. The bacteria can get into food, onto surfaces such as doorknobs, computer keyboards etc. Mortality rates are above 50% in critically ill patients, those with solid tumours and some transplant patients.

Viruses

Virus	Information
<i>Coronavirus Feline strain, Munich</i>	Coronaviruses are a large family of virus. The feline, strain Munich, coronavirus is in the same family as COVID-19 and share almost identical structure, although the feline virus is more host specific (only in cats) (90% BioCote [®] kill rate in 2 hours)
<i>Influenza Type A H1N1 Cold and Flu</i>	Influenza Type A is the most common type of Influenza virus and H1N1 is the virus that caused the Swine Flu pandemic in 2009, which killed some people within hours. It is a respiratory infection.



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