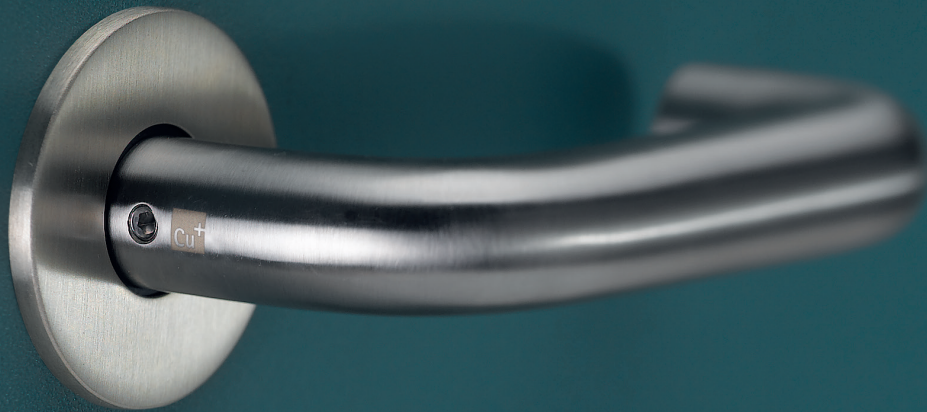


@lgood



Contego - Antimicrobial Copper



EMS 552362



FS 14846

Front cover:
CS3502 lever handle
Inside front cover:
CS6596 pull handle

Created from a unique copper alloy, the Contego range of ironmongery from Allgood provides the antimicrobial properties integral to copper, but with the aesthetic of stainless steel.

introduction



Antimicrobial Copper is the most effective touch surface material in the fight against pathogenic microbes. Killing greater than 99.9% of bacteria within 2 hours of exposure, no other material comes close.



Above: CS3502 lever handle

Right: Test evidence

Antimicrobial Copper

Antimicrobial Copper is the most effective touch surface material in the fight against pathogenic microbes, killing greater than 99.9% of bacteria within 2 hours of exposure. No other material, such as silver-containing coatings, comes close.

Three main characteristics make Antimicrobial Copper the most effective touch surface material:

- **Continuously kills microbes** - Copper's efficacy as an antimicrobial is scientifically proven to be far greater than conventional materials, continuously killing microbes that cause infections.
- **Never wears out** - The antimicrobial property of copper is intrinsic to the metal, providing continuous and ongoing antimicrobial action, even after repeated scratches and abrasions.
- **Safe to use** - As copper is inherently antimicrobial with no chemicals added, it is not harmful to people and is completely recyclable.

Touch surfaces should be continuously killing microbes – day and night, between touches and cleanings. Everywhere you look there are opportunities to upgrade stainless steel or plastic touch surfaces to Antimicrobial Copper.

By replacing fixtures, fittings and other touch surfaces with Antimicrobial Copper you can continuously kill pathogenic microbes, providing an additional weapon in the fight against healthcare-associated infections.

Test evidence

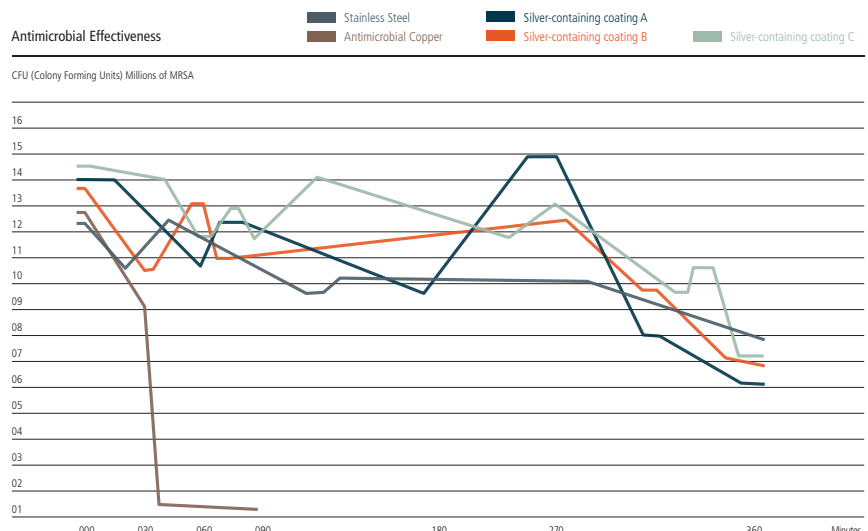
There is now a solid body of laboratory and clinical evidence to demonstrate the antimicrobial efficacy of copper against the most important pathogens challenging public health. It has been demonstrated that the following bacteria, viruses and fungi cannot survive on copper surfaces:

- Adenovirus
- Aspergillus niger
- Clostridium difficile (C.Diff)
- Escherichia coli O157:H7 (E-Coli)
- Influenza A (H1N1)
- Legionella pneumophila
- Listeria monocytogenes
- MRSA (including E-MRSA)
- Poliovirus
- Salmonella enteritidis
- Staphylococcus aureus
- Tubercle bacillus

Clinical trials have been undertaken at Selly Oak Hospital - part of University Hospitals Birmingham NHS Trust – under the control of Professor Tom Elliott and supported by the Copper Development Association, where the approach of utilising copper items to reduce infection prevention was tested.

The first results from the trial showed conclusively that copper is antimicrobial in a real ward situation and that copper-containing surfaces had 90-100% less contamination than controls made from conventional materials such as plastic, aluminium and chrome plate.

Laboratory tests show that Antimicrobial Copper is the most effective touch surface material. No other material, such as silver-containing coatings, or stainless steel, comes close.



contego



The Contego range is formed from an alloy containing Antimicrobial Copper, with the aesthetics of stainless steel.



Contego

Contego is the new Antimicrobial Copper range from Allgood that provides the properties of copper with the aesthetic of stainless steel.

The antimicrobial properties of copper are undeniable, but a barrier to its use has been that pure copper has an aesthetic that does not always sit well with modern interiors.

By using a registered copper alloy in accordance with the Copper Development Association rules, the Contego range has the aesthetic of stainless steel whilst providing the proven antimicrobial properties of copper.

The Antimicrobial Copper and Cu+ marks are owned by the International Copper Association (ICA) and are designators of technical competence and understanding.

The use of the Antimicrobial Copper brand and Cu+ mark by an organisation indicates that Copper Development Association, on behalf of the International Copper Association, has granted permission to do so based upon adherence to strict usage rules. These rules guide that organisation's understanding of the underlying technology and the way they promote, advise and deploy it in line with existing research, regulatory and legislative requirements.



Top: CS finish
Above: CP finish
Far left: CS1005 cabinet handles

Finishes

The Contego range provides two unique finishes:

- **CS** - Contego Satin antimicrobial copper.
- **CP** - Contego Polished antimicrobial copper.

Items in both finishes bear the Antimicrobial Copper Cu+ mark, making them easily recognisable.

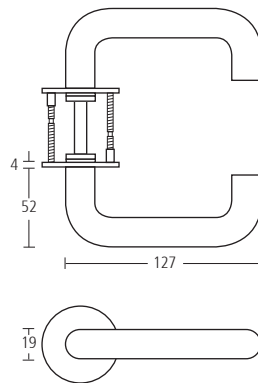
Antimicrobial Copper **Cu+**



3502

Modric Quadaxial lever handle assembly formed from Contego antimicrobial material.

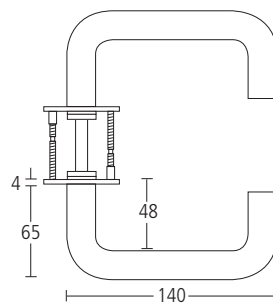
Finishes: CS • CP



3502D

As above but with 69mm projection from the door.

Finishes: CS • CP



Antimicrobial Copper **Cu⁺**

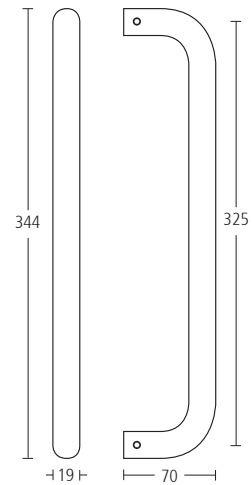


6595

Modric pull handle with concealed fixings formed from Contego antimicrobial material.

Note: Add suffix 'BB' for a pair with back-to-back fixings.

Finishes: CS • CP



Antimicrobial Copper **Cu⁺**

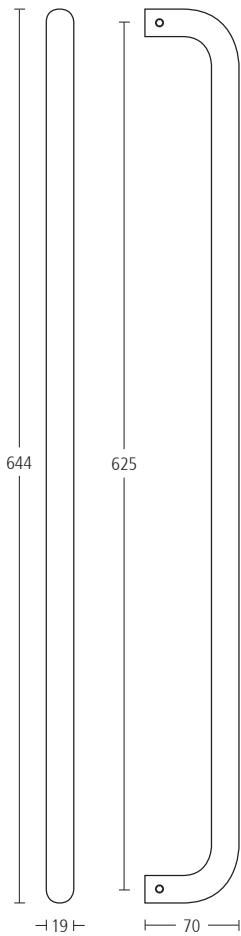
Lever handles, pull handles and push plates



6596

Modric pull handle with concealed fixings formed from Contego antimicrobial material.
Note: Add suffix 'BB' for a pair with back-to-back fixings.

Finishes: CS • CP



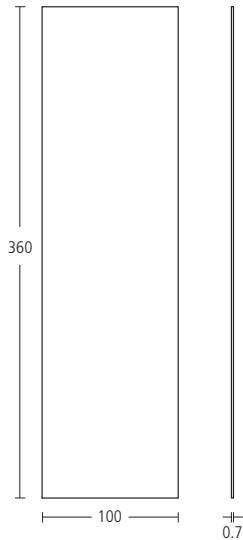
Antimicrobial
Copper **Cu⁺**



6805

Modric self adhesive push plate formed from Contego antimicrobial material.

Finishes: CS • CP



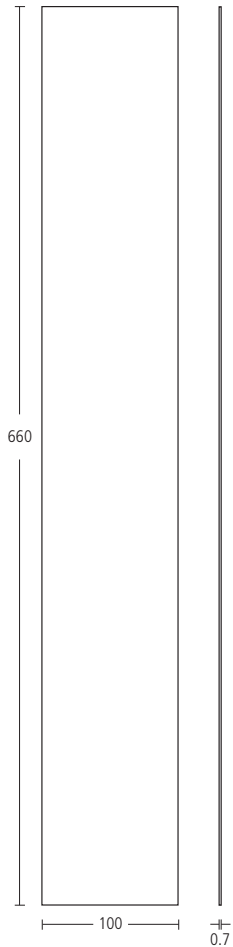
Antimicrobial
Copper **Cu⁺**



6806

Modric self adhesive push plate formed from Contego antimicrobial material.

Finishes: CS • CP



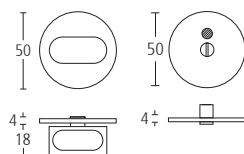
Antimicrobial
Copper **Cu⁺**



97873

WC turn on concealed fixing rose with emergency release indicator formed from Contego antimicrobial material.

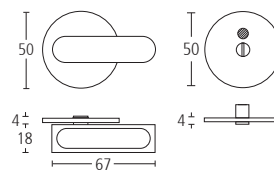
Finishes: CS • CP



97874

Disabled WC turn on concealed fixing rose with emergency release indicator formed from Contego antimicrobial material.

Finishes: CS • CP

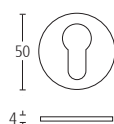




796Q

Modric euro profile escutcheon formed from Contego antimicrobial material.

Finishes: CS • CP



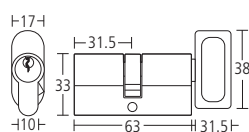
7429A

Euro profile double cylinder with key operation on one side and turn formed from Contego antimicrobial material on the other.

Variations (mm)

	V	W
a	63	31.5
b	71	35.5

Finishes: CS • CP



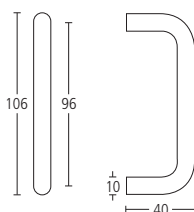
Antimicrobial Copper **Cu⁺**



1005

Modric cabinet handle with bolt through fixings formed from Contego antimicrobial material.

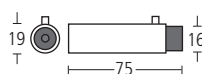
Finishes: CS • CP



6552N

Modric buffered coat hook.

Finishes: CS • CP



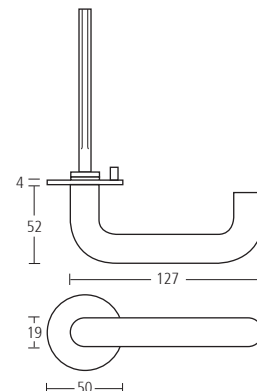
Antimicrobial Copper **Cu⁺**



6625

Modric cistern handle formed from Contego antimicrobial material complete with cistern spindle.

Finishes: CS • CP



Antimicrobial Copper **Cu⁺**

What is copper?

Copper is an essential element required by both plants and animals to live. Copper is also an industrial metal that possesses superior electrical and thermal conductivity, is easy to process and, through the incorporation of other metals, can deliver broad technical performance. This makes it a very important material in a wide range of consumer and industrial applications.

Is copper recyclable?

Copper is one of the few materials that can be recycled, time and time again, without any loss in performance. In 2008, 35% of the world's copper demand was met through recycling and it is estimated that most of the copper ever mined is still in circulation.

What are copper alloys?

An alloy is created when a metal is mixed with one or more elements. This mixture allows the combined elements to take on properties that they would not have individually in their pure states.

What is meant by 'antimicrobial'?

'Antimicrobial' is the ability of a substance to kill or inactivate microbes, such as bacteria, fungi (including moulds), and viruses.

Does copper have antimicrobial properties?

Yes. Man has exploited the natural antimicrobial properties of copper since the dawn of civilisation. It has been demonstrated clearly in many scientific studies conducted over several decades that copper kills some of the most toxic species of bacteria, fungi and viruses.

Which microbial pathogens can copper kill?

The scientific literature cites the efficacy of copper to kill or inactivate many different types of harmful bacteria, fungi and viruses, including:

- Acinetobacter baumannii
- Aspergillus niger
- Campylobacter jejuni
- Enterobacter aerogenes
- Helicobacter pylori
- Legionella pneumophila
- MRSA (including E-MRSA)
- Pseudomonas aeruginosa
- Staphylococcus aureus
- Vancomycin-resistant enterococcus
- Adenovirus
- Candida albicans
- Clostridium difficile
- Escherichia coli O157:H7
- Influenza A (H1N1)
- Listeria monocytogenes
- Poliovirus
- Salmonella enteritidis
- Tubercle bacillus

Which variables affect the antimicrobial efficacy of copper?

Copper's rate of microbial inactivation can be affected by temperature, copper concentration and the type of microorganism with which it is in contact. Current studies demonstrate the efficacy of copper and copper alloys as hygienic, antimicrobial materials against pathogenic microbes in various environments.

Is it just pure copper that has an antimicrobial effect?

No, selected copper alloys do too.

Are the Antimicrobial Copper surfaces coated?

No, the antimicrobial property of copper is intrinsic to the metal. In order to maintain antimicrobial effectiveness, oils, waxes, glosses, paints and other coatings must NOT be applied.

Are copper platings and coatings effective too?

Yes, in limited situations, but some words of caution: coatings are susceptible to wear and tear and any surface damage may not only remove the active copper coating but may introduce scratches which can harbour germs. Surfaces made from solid copper or copper alloys are antimicrobial through and through. Careful consideration should therefore be given to the intended use and likely abuse of a product.

How does copper work as a antimicrobial?

Copper is an essential nutrient for humans as well as bacteria but, in high doses, copper ions can cause a series of negative events in bacterial cells.

How quickly do copper alloys kill MRSA?

Laboratory tests have demonstrated that copper alloys kill 99.9% of MRSA within two hours.

Does this mean that there is a delay in the antimicrobial effect?

No, copper starts to have its antimicrobial effect immediately. The times stated are for scientific tests carried out under strictly controlled conditions and therefore state the times for total elimination in a particular set of conditions. In these tests, an extremely high challenge of bacteria is used, many orders of magnitude higher than would be encountered in a real clinical situation. When tests are repeated using lower doses of contamination, total elimination of, e.g., MRSA, takes as little as 15 minutes.

Has copper been tested in clinical trials?

Yes, Antimicrobial Copper surfaces have been proven to have less contamination than conventional touch surfaces in hospital trials around the world. In the UK, Selly Oak Hospital, Birmingham - part of University Hospitals Birmingham NHS Trust - was selected to be the test centre for this new approach to infection prevention. The first results from the trial, presented at the Interscience Conference on Antimicrobial Agents and Chemotherapy in Washington, October 2008, showed conclusively that copper is antimicrobial in a real ward situation and that copper-containing surfaces had 90-100% less bacterial contamination than controls made from conventional materials. These results have been confirmed in trials under way in Chile and also in the US, where the Department of Defence is funding a three-centre trial. For further information on global clinical trials please visit www.antimicrobialcopper.com.

If copper kills pathogens, does that mean it doesn't need cleaning?

No, copper alloy products will need to be cleaned in the same way as other touch surfaces, to remove dirt and grime that can prevent contact with the copper surface. Prescribed hygienic practices for the cleaning of touch surfaces, along with hand-washing, are the first lines of defence and copper alloy surfaces are a supplement to, and not a substitute for, standard infection control and hygienic practices. Copper alloy products are active 24/7 and help reduce microbial contamination in between cleanings.

How should copper and copper alloy components and surfaces be cleaned?

The usual cleaning materials used in hospitals are fine for use on copper and even bleach-containing solutions can be used as long as items are washed down afterwards as described in the current NHS cleaning guidelines.

Won't microorganisms develop resistance to copper?

This is highly unlikely for three reasons:

- Copper is naturally present in the earth's crust and, to date, no resistant organisms have been demonstrated. Copper-tolerant organisms do exist but even these die on contact with copper surfaces.
- Copper kills microorganisms by multiple pathways rather than by acting in a specific way on one receptor.
- Microorganisms are killed before they can replicate, thus they cannot pass down genetic material which would ultimately allow it to evolve and develop resistance.

Will copper and copper alloy surfaces change colour over time?

Copper and many copper alloy surfaces naturally oxidise and darken over time. The amount of time needed for a colour change to occur depends on the alloy and exposure conditions. The alloy used to form the Contego range is naturally resistant to oxidation in all environments.

Does oxidation deter copper's antimicrobial effect?

No. In fact, studies show that as uncoated copper, brass and bronze surfaces oxidise, or darken, they become more effective at eliminating disease-causing bacteria.

If copper reduces microbes, is it safe?

Yes, copper, brass and bronze surfaces are safe and long lasting. The copper industry initiated a Voluntary Risk Assessment for copper. The assessment process was agreed with the Italian Government's Istituto Superiore di Sanità, acting as the review country on behalf of the European Commission and the EU Member States. The risk assessment has now been completed and one of the main conclusions, accepted by the European Commission and EU Member State experts, is 'the use of copper products is in general safe for Europe's environment and the health of its citizens.' Copper is also an essential micronutrient in the human diet, along with zinc and iron. An adult needs 1mg of copper every day. Foods rich in copper include chocolate, nuts and seeds. A balanced diet should provide enough copper to avoid a copper deficiency.

How can I recognise a product made from Antimicrobial Copper?

Leading manufacturers of hospital equipment, furniture and fittings will use the Cu+ mark to indicate that their products are made from approved Antimicrobial Copper alloys.

How is copper superior to other antimicrobial surfaces?

Copper and copper alloy products are antimicrobial through and through. Even when surfaces made of these materials are scratched, their antimicrobial efficacy continues to work and they won't wear away like coatings or other treatments can.

Do aluminium, stainless steel and plastics have antimicrobial properties?

No. Comparative antimicrobial efficacy studies have been conducted on copper, aluminium, stainless steel, PVC and polyethylene. While it has been clearly demonstrated that copper is able to kill microbes quickly and effectively, there is no evidence that aluminium, stainless steel, PVC or polyethylene exhibit antimicrobial properties.



Allgood would like to thank PB Digital and Rob Wyatt Photography for their contributions to this brochure.

All information and details in this brochure are correct at time of going to press. However, Allgood plc reserves the right to change the product specifications without notice.

All dimensions are subject to production tolerances of ± 1 mm.

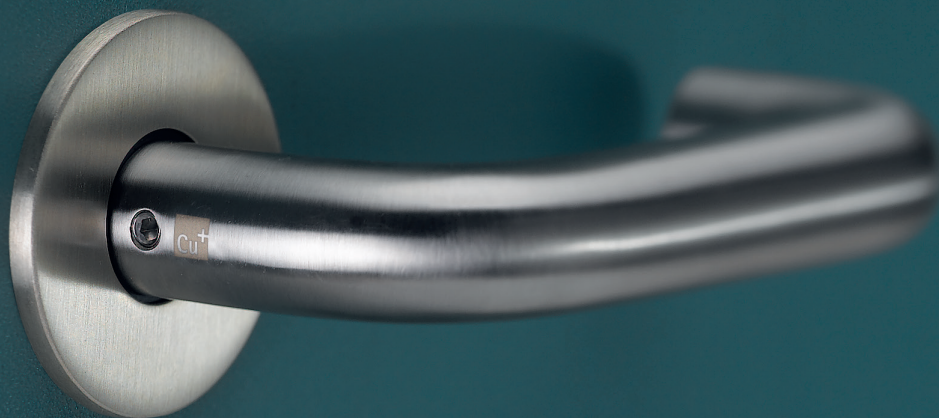
Printed on Consort 155, a paper produced using an environmentally friendly, elemental chlorine-free bleaching process, whilst its fibre contains raw materials sourced from Forest Stewardship Council (FSC) sustainable sources.

@lgood, @v, modric, contego are registered trademarks.

© Allgood plc 2011



Antimicrobial
Copper



overseas projects

Allgood Worldwide

18 Holborn
London EC1N 2LE
Telephone: +44 (0)20 7255 9330
Facsimile: +44 (0)20 7383 7950
E-mail: info@allgoodww.com
Website: www.allgoodww.com

uk projects

Allgood plc

18 Holborn
London EC1N 2LE
Telephone: 020 7387 9951
Facsimile: 020 7380 1232
E-mail: info@allgood.co.uk
Website: www.allgood.co.uk

63-83 Brearley Street
Birmingham B19 3NT
Telephone: 0121 359 4415
Facsimile: 0121 359 5832
E-mail: info@allgood.co.uk
Website: www.allgood.co.uk

28 Queen Street
Manchester M2 5HX
Telephone: 0161 834 6717
Facsimile: 0161 834 6839
E-mail: info@allgood.co.uk
Website: www.allgood.co.uk

1 Lonmay Road
Glasgow G33 4EL
Telephone: 0141 773 6298
Facsimile: 0141 771 9569
E-mail: info@allgood.co.uk
Website: www.allgood.co.uk