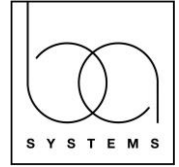


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# VBA99 | Technical Overview

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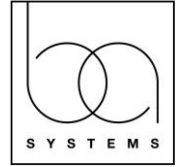
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## Introduction & Technical Overview

Recent virus outbreaks such as SARS, Ebola and Coronavirus are changing the public perception of touch surfaces, not only in health care environments but in every area used frequently by the public.

The harsh facts are that bacteria and viruses can live for hours and even days on most modern surfaces such as stainless steel and plastic. This means that these organisms are quickly transferred between persons using such items as handrails, door pulls and handles, door touch plates, train rails and a whole host of other items.

Copper has been valued for over 7,500 years for its workability, its looks, and its durability, yet today we have yet another reason to appreciate it: copper is intrinsically antimicrobial. That means it kills bacteria, viruses, yeasts, and fungi within just a few minutes of them coming into contact with it.

To make our VETOBAC Touch Surfaces range, we use VBA99 for great-looking products at cost-effective prices, to deliver best value. VBA99 has been laboratory tested to kill the Covid 19 virus within minutes.

VBA99 has a soft rose coloured finish which coordinates well with the colour of stainless steel non touch surfaces yet is easier to clean and more attractive architecturally than copper. The metal works 24/7, between touches and cleaning sessions, rapidly killing the pathogens that can so easily be transmitted and cause infection.

The VETOBAC VBA99 products have inherent antimicrobial properties and effectively kill and eliminate a wide range of bacteria including MRSA, Norovirus and E. Coli. The VBA99 certification shows that the metal kills Covid19 in only a few minutes.

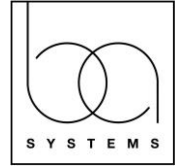
Clinical trials have already shown that touch surfaces made from the VETOBAC material can reduce contamination by more than 80% and the risk of infection by 58%. Handrails and grab rails are in regular use in both patient specific and public areas and, if manufactured from VBA99, will reduce microbial contamination and the risk of infection.

The metal has been proven to destroy bacteria and viruses in both wet and dry conditions unlike other products containing silver ions.

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## NBS Specification Clauses – Key Considerations and Typical Specifications

### PRELIMINARY INFORMATION / REQUIREMENTS

#### Performance Specification – Antimicrobial protection of touch-surfaces

Copper alloys possess many desirable properties for engineering, durability, sustainability, and aesthetic purposes. Independent research around the world has proven several “high copper” alloys to also have potent inherent antimicrobial properties for touch-surface usage, even under typical indoor (dry) conditions.

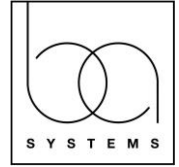
To be considered equal to the Vetobac® VBA99 material specified, any alternative proposal must:

- Have proven multi-modal efficacy equal or greater than that of copper alloys against the same range of pathogenic microbes, under the same test conditions
- Have equal or greater durability of the material and its antimicrobial effect without extra maintenance or intervention
- Have equal or better fire performance characteristics
- Have the same recyclability and recycled material content
- Have documented evidence of safety for touch surface applications to people and the environment (including being non-leaching)
- Offer same or lower contribution to Antimicrobial Resistance than copper / copper alloys
- Not rely on a coating for antimicrobial it's efficacy and be consistently effective throughout its service life
- Display superior corrosion and discoloration resistant properties

**Vetobac® VBA99 products are made from the solid or “massive” copper alloys included within the US EPA list of registered Antimicrobial Copper alloys.**

#### Key facts to note:

- VBA99 destroys 95% of the Sars-Cov-2 virus within 10 minutes of contact time and completely destroys the virus in under 3 hours.
- The specific blend used for Vetobac® VBA99 has excellent anti-corrosion properties in some cases superior to stainless steel, yet possesses intrinsic antimicrobial properties.
- Vetobac® products are made from solid alloy, not a surface coating
- No lacquer or varnish is applied to Vetobac® products; equally, none must be applied, in order to preserve the ‘contact kill’ antimicrobial properties of the alloy.



## NBS Specifications

### Typical NBS L30 Specifications

#### 1. Wall Mounted Handrails

**Manufacturer:** BA Systems, 22 Bidwell Road, Rackheath Industrial Estate, Norwich, NR13 6PT

Tel: 01603 722330; sales@basystems.co.uk; www.basystems.co.uk

**Product Reference:** Vetobac VBA99 Wall Mounted Handrails 42mm diameter

**Internal/ External:** Internal/ External

**Guarding:** None

**Infill:** None

**Fixing Methods:** Wall brackets with cover rose in non-touch stainless steel.

**Design Criteria:** Touch handrails in VBA99 with test certification of efficacy in destroying Covid 19 virus

**Other Requirements:** Load requirement 0.74kN/m; Handrails to be mounted between 900mm and 1000mm above finished floor level or the pitch line of the stairs; Handrails to extend 300m beyond the top and bottom nose of the stairs.

#### 2. Floor Mounted Handrails and Balustrades

**Manufacturer:** BA Systems, 22 Bidwell Road, Rackheath Industrial Estate, Norwich, NR13 6PT

Tel: 01603 722330; sales@basystems.co.uk; www.basystems.co.uk

**Product Reference:** Vetobac VBA99 Wall Mounted Handrails with B20 Balustrade System

**Internal/ External:** Internal/ External

**Guarding:** 50mm diameter satin stainless steel non touch posts

**Infill:** 11.5mm thick clear toughened and laminated and heat soak tested glass

**Fixing Methods:** To be determined face mounted to surface mounted

**Design Criteria:** Touch handrails in VBA99 with test certification of efficacy in destroying Covid 19 virus, mounted to balustrade

**Other Requirements:** Load requirement 0.74kN/m, 1.5kN/m, 3.0kN/m; Handrails to be mounted between 900mm and 1000mm above finished floor level or the pitch line of the stairs; Handrails to extend 300m beyond the top and bottom nose of the stairs.

**PLEASE CONTACT BA SYSTEMS FOR ASSISTANCE WITH BESPOKE SPECIFICATIONS**

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