Guidelines for antimicrobial coatings

Antimicrobial biocide

Definition of **antimicrobial biocide**: additive based on a combination of biocidal active substances that added in the coating during its production process confer to such coating suitable microbial control during its manufacturing process, storage and in-use phases as well as during the coating lasts. Paints and coatings protected with the proper antimicrobial biocides have the capacity of avoiding bacterial and fungal (moulds and yeasts) growth during both wet state and dry-film state.

To increase the antimicrobial effect in a painting and **enhance the action of the biocides** is recommended formulate a **coating with medium to high resin content**.

Hospital paints

We have consistent experience as much in Antimicrobial Paints as in Insecticide Paints and we can affirm that the current and most extended use in Hospitals is the **Antimicrobial Paints**.
In hospitals is recommended the use of coatings that does not release substances out from the dry-film.
As a marketing and health strategies for your Hospital Paints, based on our experience we recommend that your coating should meet the following characteristics, among others:

- Free of Volatile Organic Compounds (avoid release of volatile compounds).
- Free of monomers (generally could come from the acrylic resin).
- Free of CMR substances (Carcinogenic, Mutagenic and Toxic for the Reproduction).
- Free of formaldehyde and free of formaldehyde releasing compounds (generally originated from the biocide, polymers and other raw materials).

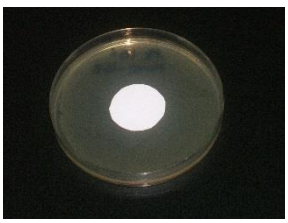
On this way, we can co-operate with you to develop a good Hospital Painting (that has, obviously, antimicrobial effect) providing the microbiological test and studies of preservation and effectiveness in its dry state (also wet state is important in order to avoid contamination of the painting before its application).

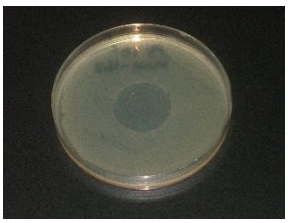
Microbiological tests

To make the studies of a Hospital Painting with antimicrobial effect we need 2 samples of 1 kg of each painting that you want to test: one of them with the biocide agreed and the second one without any biocide (no preservative at all) identifying which is the sample protected and which is not.

We will carry out two type of microbiological tests:

1) Bactericidal and fungicidal tests on the sample in wet state.
2) Bactericidal and fungicidal test of the sample in dry state.





We can support you during the whole process to develop a good antimicrobial paint, providing complete chemical assessment and the required microbiological tests. After testing your coatings samples in our laboratories **we can certificate that the samples tested containing our biocides control and eliminate the microbial growth** on its surface.

Joan Monpeó, 149 | 08223 Terrassa (Barcelona) | Spain
Tel. +34 937 831 044 Fax: +34 937 837 580
email: chemipol@chemipol.com
www.chemipol.com

Chemipol

Sanitary requirements

In case in the country where you are planning to marketing the antimicrobial paint for hospitals are specific Sanitary Requirements, please, let us know which are these requirements in order to know if any restrictions applicable in the use of products and allow us to proceed according.

Biocides recommended

Based on previous recommendations, as general guidance we recommend the following **biocides**:

Product	Description	Application
BIOPOL TC 3	• Aqueous biocide. • Broad spectrum bactericide, fungicide, algaecide. • Based on CMIT/MIT. • VOC free. • Formaldehyde free. • Free of CMR substances.	Microbial control of broad spectrum (bactericide, fungicide and algaecide) of water based products in wet state. Approved for Green Seal and Ecolabel.
FUNGIPOL AX 45	• Glycolic solution of OIT. • Broad spectrum fungicide and algaecide. • Free of CMR substances.	Fungicide and algaecide of technical products in dry state. Approved for Green Seal and Ecolable.
FUNGIPOL CP 1	• OIT protected with MicroEncapsulated technology (MET). • Enhanced stability. • Reduced leaching. • Broad spectrum fungicide and algaecide. • Free of CMR substances.	Fungicide and algaecide of technical products in dry state. Approved for Green Seal and Ecolable.
SANIPOL 75	• Water based. • Broad spectrum bactericide and fungicide. • Combination of different heterocyclic compounds and quaternary ammonium compounds. • Free of CMR substances.	Sanitizer for substrate disinfection. Is applied directly or diluted in water on the wall prior is coated. Effective against bacteria and fungi.