

INNOVATION  
SERVING HYGIENE



GLASS UNLIMITED

— ANTIBACTERIAL GLASS™

AntiBacterial Glass  
ab  
by AGC Glass



Lacobel AntiBacterial SAFE+ used as wall covering in Health Centre NovaMed operating room in Banská Bystrica (Slovak Republic).

# ANTIBACTERIAL GLASS™

INNOVATION SERVING HYGIENE

**AntiBacterial glass™ by AGC Glass Europe is a major innovation in the world of glass design. The antimicrobial action of the silver ions inside the glass eliminates 99% of all bacteria that form on its surface whilst also preventing the spread of fungi. This remarkable property makes it perfect for places where strict hygiene is a must.**

## DID YOU KNOW?

- Five seconds' contact is enough to pick up 99% of bacteria from a contaminated surface;



- Although most micro-organisms are harmless to humans, some bacteria can have serious consequences by causing infection or disease.

Innovation benefiting health: AntiBacterial glass™ testifies to AGC Glass Europe's dynamic R&D approach.





# ANTIBACTERIAL GLASS™

## OPERATION AND PERFORMANCE

The process developed and patented by AGC Glass Europe involves diffusing silver ions into the upper layers of the glass: the ions interact with bacteria and destroy them by disabling their metabolism and disrupting their division mechanism. The antibacterial effect of the glass is ongoing, particularly in warm and moist conditions favouring the development of bacteria and mould.

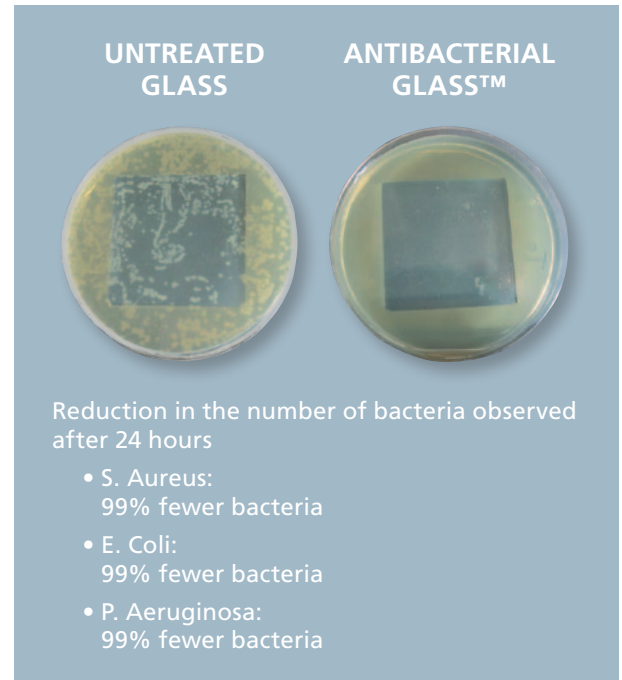
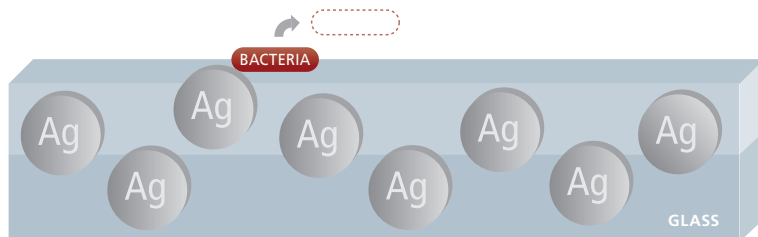
### PERFORMANCE TESTS

To evaluate the performance of AntiBacterial glass™, tests have been conducted on a representative range of bacteria and fungi:

1. Bacteria
  - Staphylococcus Aureus
  - Escherichia Coli
  - Pseudomonas Aeruginosa
2. Fungi
  - Aspergillus Niger
  - Candida Albicans

The results showed a drastic reduction in the initial bacterial concentrations as well as a cessation of fungal growth.

Though present in low concentrations, the silver ions give the glass its bactericidal and fungicidal effects.





## **NOSOCOMIAL INFECTIONS**

*(infections acquired while in hospital)*

- Between 5 and 10% of patients in modern hospitals in developed countries contract one or more nosocomial infections ("Clean Care is Safer Care" – Global Patient Safety Challenge 2005-2006 – WHO);
- The bacteria tested on AB glass are found mainly in hospitals and are particularly responsible for nosocomial infections;
- Some of the bacteria responsible for nosocomial infections are MRSA (Methicillin-Resistant Staphylococcus Aureus), i.e. germs that are multi-resistant to antibiotics. The main weapon in the fight against MRSA is basic hygiene (hand washing, environmental cleaning), but architectural prevention is also important. This involves cataloguing and using materials with a bactericidal effect when renovating and constructing hospital buildings for the most vulnerable patients (isolation rooms, haematology/geriatric departments, etc.).

AntiBacterial glass™ has been proven effective in independent laboratory tests

# THE RANGE

AGC Glass Europe's AntiBacterial glass™ range comprises **five products:**

- PLANIBEL AB: clear glass
- LACOBEL AB\*: painted glasses
- MIROX AB\*: mirrors
- STRATOBEL AB: laminated glass
- STRATOPHONE AB: acoustic laminated glass

AntiBacterial glass™ is stamped with a special mark (see logo opposite) certifying it as AB.

*\* For extra safety a polypropylene SAFE+ film can be placed on the painted side of Lacobel AB and Mirox AB.*



PLANIBEL AB Tinted, laminated PLANIBEL AB used on waiting room benches



MIROX AB Mirrors

# APPLICATIONS

**AGC Glass Europe's AntiBacterial glass™ can be used in a wide range of interior design applications.**

**Lacobel or Mirox AB\*** is ideal for wall covering in places that are:

- **subject to specific hygiene requirements:**

- hospitals, haematology, oncology and geriatric units, isolation rooms, burns units, sterilisation rooms, etc.
- clinics, infirmaries, maternity units
- pharmacies and laboratories
- rest homes

- **damp and thus prone to bacterial and fungal development:**

- showers and bathrooms
- health spas
- sports halls
- swimming pools, etc.

- **others:**

- canteens, toilets, etc.
- waiting rooms, etc.

**Planibel AB** can be fitted as partitioning or double glazing.

Wall covering, partitions, double glazing and more: AGC Glass Europe's range of glass with a bactericidal effect is a comprehensive interior design solution.

*\* For extra safety a polypropylene SAFE+ film can be placed on the painted side of Lacobel AB and Mirox AB.*



Lacobel AntiBacterial used as wall covering in Stomamed (dentist surgery) in Tábor (Czech Republic).



# BENEFITS



## **VARIED, CONTEMPORARY LOOKS**

AntiBacterial glass™ offers a range of looks depending on the product:

- LACOBEL AB  
opaque, reflective glass;
- PLANIBEL AB  
this clear glass is perfect for partitioning off spaces while maintaining a transparent aspect;
- MIROX AB  
used in wall applications, mirrors create a feeling of extra space;
- STRATOBEL AND STRATOPHONE AB  
used in interior for safety aspects and acoustic insulation.

## **EASY TO MAINTAIN**

AntiBacterial glass™ is easy to clean and is resistant to cleaning products, including those used in hospitals. Tests have shown that even abrasive maintenance products do not impede the glass's antimicrobial effect.



## **EASY TO FIT**

Fitting AntiBacterial glass™ is easy. Installation techniques differ depending on the product chosen. Please refer to the installation guides for products available in AB (Lacobel, Planibel, Mirox, Stratobel and Stratophone) on our website: [www.YourGlass.com](http://www.YourGlass.com).

For more information, go to [www.YourGlass.com](http://www.YourGlass.com) or contact your nearest sales outlet.





## INFORMATION ON BIOCIDAL PRODUCT REGULATION (BPR REGULATION (EU) 528/2012)

AntiBacterial Glass™ is a treated article according to Article 3(1)(I) of Regulation (EU) 528/2012 and thus must comply with the requirements of article 58 of this Regulation concerning the placing on the market of treated articles.

The active substance used to treat AntiBacterial Glass™ is Silver (CAS 7440-22-4) and the relevant product-type is PT2. Silver is an existing active substance and the combination Silver / PT2 is being examined under the review program (Annex I and II of the Regulation (EC) 1451/2007).

AntiBacterial Glass™ is labelled providing the customer with the relevant information in accordance with the Regulation's labelling requirements for placing on the market of treated articles as per article 58(3) of the Regulation (EU) 528/2012.

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GLASS UNLIMITED

#### AGC GLASS EUROPE, A LEADER IN FLAT GLASS

AGC Glass Europe is the European flat glass branch of AGC, the world's leading glassmaker. Its baseline, Glass Unlimited, reflects its core assets: innovative strength in advanced glass technologies, a global sales network and an industrial presence stretching from Spain to Russia. AGC Glass Europe has representatives worldwide – See [www.YourGlass.com](http://www.YourGlass.com) for further addresses.