

# Antimicrobial Masterbatches and Powder Dispersions



Wells Performance Materials  
Providing Solutions...Adding Value

# Antimicrobial Additive Masterbatches and Powder Dispersions

Wells Performance Materials has been a specialist in the field of antimicrobial additives for over 25 years. The unsurpassed wealth of technical experience in this area combined with full in-house R&D and production facilities makes Wells an ideal new product development partner.

## Microbes in our environment

Bacteria, fungi, moulds and mildews are all present in our every day environment. These microscopic organisms have adapted to colonise and thrive in almost all places on earth. Residual levels of many bacterial strains are of no consequence to human health, in fact they can help build a general level of resistance in our immune system to infection and disease.

## So why use antibacterial additives?

Certain microbes are harmful to humans and if left unchecked will proliferate to cause infections and diseases. There is a particular need to control these in sensitive environments such as hospitals where acquired infections including MRSA can prove to be fatal. Microbes can also be responsible for a wide range of undesirable effects such as product deterioration and discoloration, malodour and food contamination to name but a few. Antimicrobial additives provide an extra layer of protection when combined with normal cleaning procedures.

## Where are antimicrobial additives providing protection?

1. Plastics
  - Films
  - Profiles
  - Foams
  - Fibers
  - Flooring
  - Mouldings
  - Sheet
2. Powder Coatings
3. Adhesives
4. Paper
5. Wet Paint

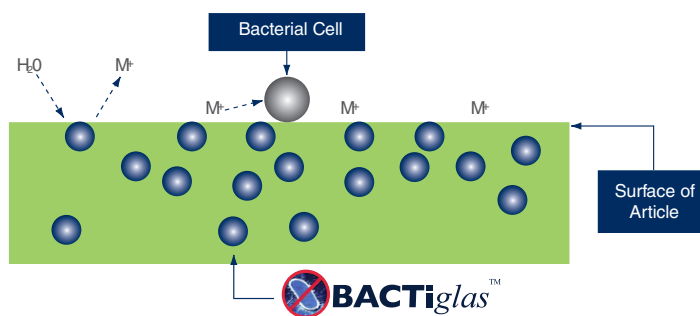
**Efficacy of BACTiglas™** : Articles manufactured containing BACTiglas™ additive dispersions have been externally tested and proven to exhibit reductions in bacterial viable counts by as much as 99.9999% against controls.

## The Wells Performance Materials BACTiglas™ system

BACTiglas™ is a range of silver based antimicrobial additive masterbatches and powder dispersions. Silver has long been established as an excellent biocide however it is the unique nature of the BACTiglas™ microscopic glass delivery system which provides the products superior consistency and longevity of effect. Residual levels of atmospheric moisture combine with the hydrolytically reactive glass to release the silver ions at the surface of the article.

## Key advantages & benefits of using BACTiglas™

- Reduction in spread of healthcare acquired infections
- Protection against cross contamination
- Accelerated healing from wound dressings
- Reduced odour formation in synthetic fibers and sportswear
- Increased product lifespan and durability
- Resistance to unsightly and unwanted biofilm build up

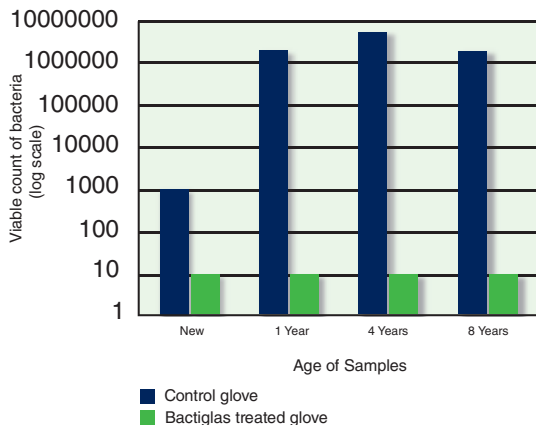


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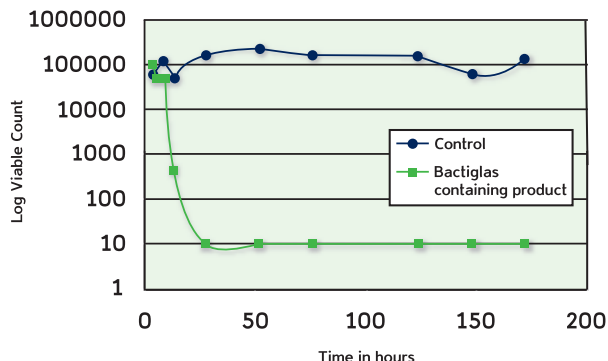
## How long will BACTiglas™ be effective for?

Tests have shown that the BACTiglas™ additive continues to work for at least eight years with no reduction in the product's antibacterial performance

Antimicrobial Activity of PE Glove samples tested over a period of 8 years against E.Coli



Time related study - Repeat inoculations with MRSA



## How quickly does it work?

BACTiglas™ works rapidly to reduce the numbers of living bacteria on surfaces. Whilst test methods make it difficult to determine the precise speed of kill, independently gathered results have demonstrated significant reductions in live bacterial cell counts within one hour.

## BACTiglas™ in polymers

The BACTiglas™ additive has successfully been incorporated into, amongst others, the following polymers:

ABS	Latex	PP
Acetal	Nylon	PPS
Acrylic	PC	PSU
EVA	PE	PU
GPPS	PEEK	PVC
HIPS	PET	Copolymers



## How we test efficacy

Wells Performance Materials can support customers by advising on suitable testing or submitting customer samples manufactured containing BACTiglas™ additive for external testing. The most commonly applied test method is ISO 22196, this test method is widely used and recognised throughout the industry, variations and alternatives are available where appropriate.

## Regulatory Status

The active substance used within the BACTiglas™ product range is registered with the EPA and under review in the EU BPR and GB BPR. The active substance is suitable for use in food contact applications as it is submitted for PT4 of the BPR (and approved through EFSA) and through the FDA through the food contact notification (FCN) program.

## Product Leadership through Experience

The advantages Wells BACTiglas™ has over alternative organic and inorganic systems are derived from the combination of consistent controlled ion release, good resistance to discoloration, excellent persistence of effect and rapid biocidal performance. These benefits are why BACTiglas™ has been chosen as the means of protection in many industrial, medical, domestic and packaging applications.

This information is correct to the best of our knowledge at the time of printing in 2024. We would recommend that users make their own assessment to confirm that the material meets their requirements. We accept no liability for any damage, loss or injury resulting from the use of this information. Freedom from patent rights must not be assumed

# WELLS

Performance Materials

**reverte**<sup>™</sup>

 **BACTi**glas<sup>™</sup>

 **Compol**<sup>™</sup> 94

**WELLS** LITE

**WELLS** AID

**WELLS** SCENT

**WELLS** BLOCK

**WELLS** CLEAN

**WELLS** STAB

**WELLS** SLIP

**WELLS** STAT

**WELLS** BIO

**WELLS** FREE

**WELLS** DRY

**WELLS** FLAM



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