

Biomaster 542

Technical Data Sheet

Biomaster 542 is an antimicrobial masterbatch developed for use in Polyethylene and Polypropylene. The inorganic nature, small particle size and high temperature tolerance of this additive makes it ideal for use in a wide range of polymer processes.

Biomaster utilises silver ion technology with a range of carriers. This provides a release of silver ions on demand, safely inhibiting bacterial growth.

The slow release of the active silver ingredient give the products maximum long term activity.

Biomaster antimicrobial additives can be processed at temperatures up to 600 degrees Celsius without losing their antimicrobial properties.

Physical properties

Appearance - off-white pellets

Particle size and shape - 2-3 mm cylindrical

Solubility in water - essentially insoluble

Recommended addition rates

Biomaster 542 is recommended for use at levels from 1% for antimicrobial protection.

Testing procedure

All testing is undertaken independently by Industrial Microbiological Services Limited. The procedure is a quantitative test designed to assess the performance of antimicrobial

properties. Submitted samples are challenged against stock cultures and incubated for 24 hours at 37°C according to ISO standards. TVC (Total Viable Count) of bacteria are then recorded and the percentage of reduction is calculated.

Biomaster efficacy

Biomaster has been tested to ISO 22196:2011 against common organisms such as:

- Campylobacter
- E.coli
- Listeria
- MRSA
- Pseudomonas
- Salmonella

It is proven to reduce the growth of these bacteria by up to 99.99%.

Regulatory

The active ingredient complies with the required legislation for biocides. This can include:

- Biocidal Products Regulation (BPR)
- Food and Drug Administration (FDA)
- Environmental Protection Agency (EPA).



General information

Biomaster 542 is easily added to the product during manufacture. Biomaster only imparts antimicrobial properties and should not affect the basic colour or surface finish of any product in which it is used.

The active ingredient in Biomaster cannot leach or wash out and is designed to last for the lifetime of the product. Before using this product please ensure that you have the latest information.

For help or more information contact the Addmaster technical team - email info@addmaster.co.uk.

Storage and handling

Biomaster products are formulated for maximum stability in storage and in use.

However, materials containing silver exhibit varying degrees of light sensitivity and can cause some discolouration in the finished article.

It is therefore incumbent upon the user of the Biomaster products to evaluate them fully under their normal conditions of use.

As with all chemicals, please refer to the Materials Data Handling Sheet prior to use.

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