

Biocidal additives containing silver nanoparticles for polymers

TRANDMARK ACTIVE SILVER PROTECTION BY POLYDEF

is a registered trademark dedicated for all types of products made from thermoplastic and chemo-hardened polymers, resins or PUR foams. The mark makes it possible to distinguish safe products with biocidal properties, which are obtained thanks to the **POLYDEF** biocidal additive. The trademark ensures that end consumers can be certain that the product has been made in adherence to the appropriate processes and has been tested from the perspective of microbiological activity at an accredited unit.



Active Silver Protection by POLYDEF was created from the initiative of Smart Nanotechnologies S.A. Companies that pay special attention to microbiological protection of products and ensuring the safety of users of final products.

What are the requirements for obtaining certification with the Active Silver Protection by POLYDEF mark?

The condition for obtaining the Active Silver Protection by **POLYDEF** certificate is conducting studies of the content of an additive from the POLYDEF line and analyzing the product's microbiological activity prior to marketing. It is required to achieve at least 90% bacterial reduction, determined according to standard PN-EN ISO 22196.

CERTIFICATION ACTIVE SILVER PROTECTION BY POLYDEF

What advantages are gained thanks to the certificate?

- highlighting the quality of selected products in which the biocidal POLYDEF additive has been applied,
- distinguishing products with an enhanced standard of safety and microbiological purity,
- minimization and combating of the availability of pseudo-biocidal products which do not meet standards for reducing
- marking of products with an emblem intended to raise consumers' awareness of the quality of purchased products.

What studies are required for a given product to be taken into consideration in the context of certification? The process has the following course:

- testing of samples sent in by manufacturers applying for certification,
- performance of technological trials and selection of production concentrations,
- testing of samples immediately prior to marketing and confirmation of antimicrobial properties

After a decision confirming fulfillment of all conditions, the certificate and authorization to use the mark is issued for 1 calendar year.

Certified polymer products are designated by the trademark and have a certificate confirming product quality. The trademark can be used in all marketing materials as well as you can place it on your products, e.g. as a print or tag.

ACTIVE SILVER PROTECTION BY POLYDEF IS SUPPORT AND QUALITY GUARANTEE AT EVERY STAGE OF COOPERATION



















Technical support in implementation of the technology

Sales training support

Microbiological testing

Connecting business partners

ss Highest quality products

Increased standard of microbiological purity

d standard Production with biological due procedures ırity

Products tested in accordance with the PN-EN ISO 22196

standard











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