



SmartZINC



hot melt

Antimicrobial Masterbatch

Highly active zinc formulation for fibers, films and surfaces.

Application

Smart ZINC hot melt masterbatches stand out due to their high antimicrobial effect. The formulations can be added to all common standard polymers in almost every thermoplastic manufacturing process. The contained organic micro-encapsulated zinc provides long-term protection for the surfaces of the most diverse products against settlement of harmful microbes.

The Technology

Smart ZINC hot melt additives are formulated as masterbatches for use in thermoplastic processing. Their additive use is made in typical proportioning processes in extrusion, coextrusion or synthetic fiber melt spinning processes. The masterbatches can be integrated conveniently into existing processing lines. The typical process parameters remain unchanged.

Fields of Application

Smart ZINC hot melt masterbatches are optimized for the antimicrobial functionalization of synthetic fibers and films or for use in injection molding. The existing know how allows providing customized formulations for special applications.

In addition to functional injection-molded articles, the main field of use is synthetic fibers for sports and active wear, ready-to-wear garments, medical textiles and technical fibers.



Innovations characterize the range of products

Standard Product

Smart ZINC hot melt masterbatches are available in several types. A standard masterbatch Z13 is available for injection molding. It is suitable for process temperatures up to 350°C. The product portfolio can be extended or optimized for specific applications by our experts in cooperation with our customers.

Special Products

Besides the injection molding masterbatch, two other zinc additives were developed that differ in their organic microencapsulation which is geared to the respective requirement specification. By optimizing this component, products became accessible that are suitable in particular for melt spinning technologies to make multifilaments from synthetic polymers such as polyamide 6, -6.6 and polyester (PET).

Quality Guidelines

The antimicrobial functionalization of standard polymers was examined according to DIN EN ISO 20743. It is efficient, permanent and correlates with the substance content. Biocompatibility of the finish was demonstrated with synthetic fibers in special test series in compliance with DIN 10993 at dermatology clinics.



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Please contact us if you have any further questions or would like to have more information.

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