SUKANO® Masterbatches demonstrate long-term antimicrobial effect

- The antimicrobial effect was tested by an external laboratory specialized in microbiological tests
- Tests were conducted in accordance with ISO 18184:2019 (fabrics) and ISO 21702:2019 (plastics inject molded parts and films)
- Tested on both PET and PA applications in various end applications, including fabrics, injection molded parts and films extrusion
- Sukano’s Masterbatch uses proprietary technology, registered as preservative

Schindellegi, Switzerland, September 16, 2020 — Many microorganisms have been shown to survive on surfaces including metal, cardboard and plastic. However, plastic items can be treated to trap and inhibit the replication of microorganisms. Sukano has developed Antimicrobial Masterbatches for PET and PA fibers that have a strong antimicrobial effect on the plastic parts, while also potentially helping to reduce waste and improve the sustainability credentials of the final articles produced.

Sukano’s Masterbatches work by directly integrating an antimicrobial additive into the polymer, using proprietary technologies. The power of this technology is that the antimicrobial effect not only remains stable during the usage of the product, but that it is maintained after washing. This is because the additive is consistently present on the surface of the product, without being released into the environment.

Sukano conducted tests at an external laboratory specialized in microbiological testing and in accordance with ISO 18184:2019 (fabrics) and ISO 21702:2019 (plastics inject molded parts and films) to independently confirm the effectiveness of an antimicrobial activity. Test results confirmed strong antimicrobial efficacy and resistance against degradation by microorganisms.

Our SUKANO® Antimicrobial Masterbatches offer not only the highest performance, but also durability: the antimicrobial efficacy of the fibers shall remain after multiple washing cycles at 40° C. All this is possible without impacting the fibers’ physical properties or yellowing.

Disclaimer: Active ingredient is registered at the US Environmental Protection Agency (EPA). Antimicrobial properties are built in to protect the product. The product does not protect the users or others against pathogens. Always clean the product thoroughly after each use.

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Application in personal protective equipment (PPE)

Personal protective equipment (PPE), and especially face masks, have become an increasingly common everyday item. There are a variety of masks available in the market, and the World Health Organization (WHO) defines three categories (disposable medical masks, respirators, and reusable non-medical masks). All are made from different layers of textiles.

Many people are explicitly choosing alternatives to disposable medical masks in order to conserve natural resources and prevent waste. However, reusable non-medical masks are typically made from fibers without antimicrobial properties. Manufacturing textile masks using fabrics that include SUKANO® Antimicrobial Masterbatch could help increase product protection from surface contamination, even if the mask is not washed after each usage.

The SUKANO® Antimicrobial Masterbatch is already included when spinning the fiber, which eliminates additional finishing steps like external coating. This helps the environment by reducing waste and energy, saving natural resources.

Extending product protection beyond PPE

Antimicrobial plastics could provide protection beyond personal protection items like face masks, gowns and gloves. For example, they could be effectively used more broadly in other potentially contaminated surfaces like plastic devices, interior parts and textiles of vehicles, door handles, light switches and even packaging applications.

“Beyond the textile and fiber applications, our external lab results confirm the efficacy of our technology used in our PET and PA based masterbatches when applied in film extrusion processes and injection molded parts,” states Michael Kirch, Global Head of R&D for Sukano. “This opens the door to a potential array of additional applications to feature antimicrobial properties.”

Antimicrobial effectiveness

The active ingredient used in Sukano’s Antimicrobial Masterbatches is a registered preservative in the EU, Switzerland and USA. To claim and promote antimicrobial effect in the final application, producers using Sukano’s Antimicrobial Masterbatches must test the final product, have the results confirmed by a specialized external laboratory, and must comply with local legal regulations.
Sukano’s commitment

The company aims for a collaborative and strong customer relationship to truly understand and meet their needs with our local team of experts and regional manufacturing facilities. In order to become the partner of choice for converters and brand owners, that delivers innovative products and highly specialized and customized solutions. The company is driven by expertise and focuses its technical knowledge on developing innovative products and services for conventional polymers and biodegradables that can be used for applications in textiles, packaging, medical, durable goods, building and construction, and industrial.

Efficient, durable and sustainable! Benefit from Sukano’s expertise and proprietary formulations to reach unprecedented performance levels both during manufacturing and on final product functionality.

About Sukano

Sukano is a global specialist in the development and production of additive and colour masterbatches and compounds for polyester and specialty resins. The company is driven by expertise – Sukano focuses its technical knowledge on developing innovative products and services for oil and bio-based polymers that can be used for applications such as thin and thick films, bottles and containers, fibers, filaments, and sheets.

Founded in 1988, Sukano developed the state-of-the-art, market reference slip/antiblock additive masterbatch for PET film and sheet applications. Headquartered in Switzerland, it is a family-owned business with a global distribution network and three production facilities strategically located in Europe, the Americas and Asia.

Providing unparalleled service, knowhow, and quality to its customers worldwide, Sukano is the global partner of choice for plastic converters and brand owners to develop their innovative products and highly specialized solutions.

For more information, visit www.sukano.com