



*Driven by expertise*

## Expertise in light barriers for PET bottles and containers

For more information,  
please contact :

Nadja Lendi  
Marketing Coordinator

nadja.lendi@sukano.com  
Phone: +41 44 786 99 45

Sukano is a world leader in the development and production of additive and colour masterbatches and compounds for polyester and specialty resins. The company aligns its knowhow and expertise in ultimate light barrier technologies to produce the most appropriate, fit for use masterbatches to protect packaged good contents from UV and Visual spectrum wavelength light degradation.

Light protection is a must-have feature for nearly all processors of transparent PET bottles – especially those made to hold light-sensitive ingredients, such as vitamins, certain proteins, medications, or food and beverage natural ingredient enhancers.

The challenge has always been how to successfully balance cost-in-use without sacrificing final product integrity – all while keeping the best possible aesthetics and packaging communication for consumers. Achieving this delicate balance is something Sukano's product line can help solve.

### **Functionality linked to aesthetics**

Sukano has in house specialists dedicated to white masterbatch formulations and applications in PET. They are well equipped with UV-vis/NIR equipment, including integrated spheres. These enable them to customize each masterbatch formulation to a specific packaging shelf life requirement.

The formulas can also be adapted for regulatory approval for use in direct food contact applications. Sukano provides this in-house knowledge and service to its partners. All formulated products come with certified and validated technical data. This allows customers to pre-select a starting point, providing both improved accuracy and speed to market.

Sukano light barriers allow for the creation and development of highly bright color shades and whites – while at the same time protecting packaging contents at conventional sensitive wavelengths of 550nm, as well as those above 700nm with a transmission rate below 0.05%.



*Driven by expertise*

For more information,  
please contact :

Nadja Lendi  
Marketing Coordinator

nadja.lendi@sukano.com

Phone: +41 44 786 99 45

### **Overcoming challenges with Sukano PET light barriers masterbatches**

Packaged goods requiring light barrier protection pose additional processing challenges to plastics convertors. Understanding the industry's needs in- depth is what enables Sukano to formulate its masterbatches to meet the requirements of each specific core sensitive item packed. This also allows processors to run production on the conventional path and generate a continuous output producing homogeneous and specified parts.

Thanks to the use of a proprietary reheating agent in its formulations, Sukano customers enjoy reduced scrap rates in bottle blowing processing; increased production output; and less energy to re-heat the bottles. On top of that, there is the opportunity to increase R-PET content in final packaging.

Another issue may be obtaining adequate dispersion and masterbatch distribution into the polymer matrix – the masterbatch needs to be highly compatible for the PET grade used, otherwise blending will not adequately disperse into the PET during extrusion. This can then lead to a lack of consistency during process operations, causing non-homogeneous protection in the packaging, ultimately affecting the product integrity over time.

Sukano customizes its masterbatches for different resin types by using a selection of suitable polymer carriers, as well as adapting the pellet size from standard distribution to small particles or even micro pellets as needed.

Sukano light barrier masterbatches are formulated with all these variables in mind, helping to make all these issues disappear. Sukano 's expertise in polyester resins has been built over 30 years. This extensive, accumulated know-how enables the company to offer products that provide high levels of brightness, shades and protection without compromising the short cycle times and product integrity demanded by the industry.

“The improved performance levels of light barrier Sukano masterbatches demonstrates how we are able to deliver formulas that are precisely adapted to their intended use. This ensures unparalleled processing performance of our masterbatches for our customers and outstanding packaging aesthetics for our brand owners' partners,” states Jens Schrödter, Product Development Leader of Sukano for light barrier applications.

Seite 2 / 3



*Driven by expertise*

For more information,  
please contact :

Nadja Lendi  
Marketing Coordinator

nadja.lendi@sukano.com

Phone: +41 44 786 99 45

Sukano has recently invested in UV-vis/NIR testing equipment to validate performance claims for their products. This is intended to help define and quantify light protection in different wavelengths from UV to visual to IR, according to the end use application. This testing technology is available at our Global R&D Center in Switzerland.

Sukano's expertise plays a decisive role, and PET bottles producers looking to develop products with great added value are making it their priority to partner with Sukano.

#### **About Sukano**

Sukano is a world leader 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](http://www.sukano.com).