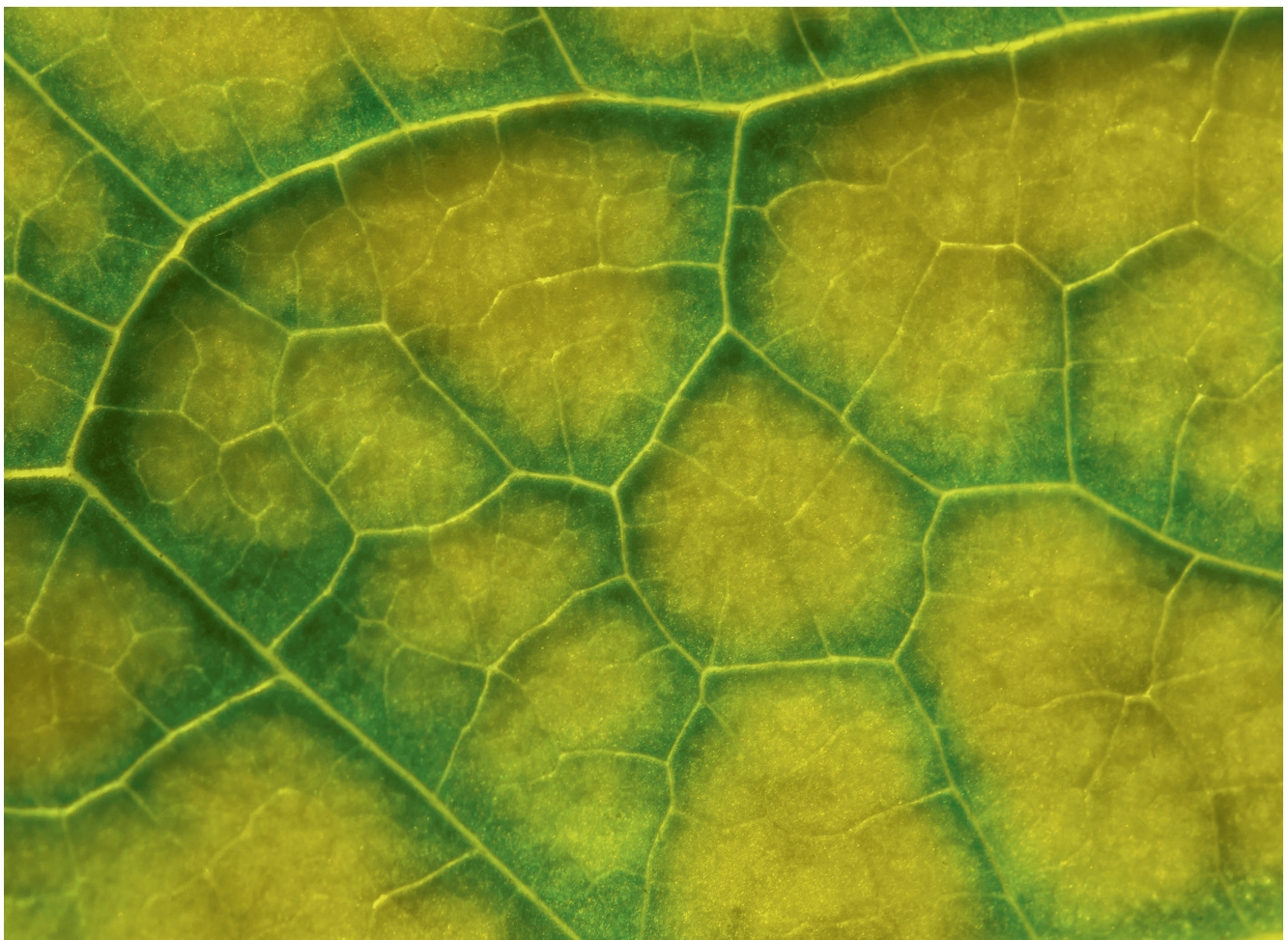


# What Will Be the Color of 2021?

## *Trend Report on the Coloration of Plastics*

Plastics processors have a wide range of colors at their disposal to color their products. Choosing the right color can ultimately be the key to success. But colors are just as subject to trends as materials and designs. **Kunststoffe** asked manufacturers of pigments, masterbatches, and colorants which colors would be particularly popular in the coming year. We were also able to learn what impact the corona crisis was having on color selection and how the demand for increased recycling and greater sustainability was changing the coloration of plastics.



Colors inspired by nature will also be very much in demand in 2021. They give products a more sustainable appearance © Milliken

**A**pppearance is the first thing about a product that strikes the customer's eye. Visual impression often influences the purchasing decision even before information on the technical data or contents of a package is absorbed. This makes choosing the right colors very important. Colors send signals, create feelings, produce emotions, and awaken memories. They also assist branding by associating the name of a product or a company

with a specific color. The magenta of Deutsche Telekom is one of the most prominent examples here. It is equally important for companies to choose the right colors for their products.

Like other materials, colors are subject to trends. They often follow societal developments and reflect consumer wants. The growing demand for better environmental protection has been manifested in recent years in an increase in the use of green »



**Fig. 1.** Metallic luster creates the impression of high quality. The corona crisis is accelerating the consumer demand trend for products with a high-quality appearances © Eckart

shades for packaging and products, because these create an association with a more sustainable lifestyle. **Kunststoffe** asked manufacturers of pigments, masterbatches and colorants what the trend colors would be in the coming year. We also wanted to know what impact the corona crisis was having on color selection and how the demand for more sustainable use of plastics and greater recycling was influencing their product development.

The trend for colors associated with nature and a healthy environment is set to continue in the coming year. Manufacturers are agreed on this. Green and blue shades in particular will remain in demand. This is due to the continuing very high environmental awareness. Dr. Dietmar Mäder, Global Head of Plastics Marketing & Technical Service at Eckart GmbH, Hartenstein, Germany, believes that the present corona crisis is also accelerating this trend: "Since many people are currently spending a great deal of time at home because of Covid-19, nature is acquiring greater importance. This has an influence on color selection. We are seeing a rise in green and blue shades, for example moss tones reminiscent of a woodland walk, pale blue inspired by the sky, and dark blue conjuring up the sea," he explained.

The uneasy global situation, not just on account of Covid-19 but also because of the numerous conflicts such as the trade war between the USA and China and the unresolved relationship between the EU and the UK, is giving rise to general uncertainty among consumers. For this reason, according to the manufacturers, the popular colors are those that stand for reliability and solidity, while at the same time radiating warmth, friendliness, and humanity. "In 2021, warm orange and yellow will feature prominently. The global problems will give rise to a color range that represents stability and appears authentic but also enhances the atmosphere," predicted Judith van Vliet, Sen-

ior Color Designer at Clariant ColorWorks EMEA. According to Lydie Tuchbreiter, Commercial Industry Manager North America at BASF Colors & Effects, blue – as the color of the sky and the sea – will also be very much in demand in future on account of the difficult global situation. "Blue is frequently described as a reassuring, relaxing, authentic color. It is popular for household items, decorative articles, and sports equipment, particularly during unsettled times of crisis," she explained.

Another interesting aspect is touched on by Mäder. Contrary to the current assumption that in uncertain times consumers would tend to buy mainly cheap articles in order to save money, he is instead seeing the opposite trend: the purchase of high-quality products as a mood brightener. "Since the current daily diet of news places an emotional stress on consumers, they want products that express quality. To satisfy this need, glossy, brilliant colors that radiate quality are in demand," Mäder explained. According to Mäder, this expression of high quality can be achieved through colors with a metallic luster, such as warm copper tones or silver. These colors will therefore be very popular in 2021. Irrespective of the current economic and political situation, Mäder sees a general trend towards articles with a high-quality look. This applies both to packaging and to the products themselves. Consumers are prepared to spend more money on high-quality, long-lasting articles. The proverbial "cheaper the better mentality" belongs to the past. Packaging and products will therefore cost more to produce, which will also enable the use of more expensive pigments and colorants.

The demand for longer-lasting products is also confirmed by other colorant manufacturers. It comes from a desire on the part of many consumers to move away from disposable articles towards more sustainable plastics products. However, this poses some problems for manufacturers. If products are to be used for longer, they must also look good for longer. The stability of the colorants used therefore takes on greater importance. Pigments and colorants with, for example, high light and weathering resistance are required. "Extending the service life of consumer goods made from plastic is an important contribution to sustainability," explained Philippe Lazerme, Head of Marketing for the Business Unit Pigments at the Clariant subsidiary Colorants International. "Besides the technical properties of a product, appearance also plays an important role. To address this need, we supply our PV-Fast range of pigments with high light and weathering resistance. These allow articles to stay attractive for longer. The light-protective effect of pigments should also not be forgotten."

### **Just to Look Good Is Not Enough**

In making this last point, Lazerme is referring to an additional benefit that pigments and colorants can offer in relation to extending the service life of plastics products. Various polymers degrade on exposure to light, for example UV light. This degradation process can be prevented with, for example, special UV light-absorbing pigments. Such additional properties could become even more relevant in future. Sami Palanisami, Global Marketing Manager Plastic Colorants at Milliken Europe, questions whether, in view of the demand for greater sustainability, the coloration of plastics will continue to be driven by purely esthetic





**Fig. 2.** Since carbon black continues to pose significant problems in plastics recycling, many colorant manufacturers are now offering alternative black pigments for the coloration of plastics © Clariant

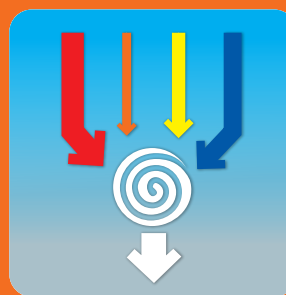
considerations or whether the colorants used will not also have to offer additional advantages for the products or components. "There are applications in which colorants are used solely to improve the visual appearance of the plastics. This could be called into question in future from the viewpoint of sustainability," he said.

### Replacement for Carbon Black

There is complete unanimity among manufacturers that black plastics, particularly those colored with carbon black, continue to pose a major problem for recycling. To recycle plastics waste efficiently, the waste must be segregated by material. To do this, most sorting machines use near-infrared sensors (NIR). However, carbon black absorbs NIR light, which means that plastics colored with it cannot be detected and differentiated by the sorting machines. To improve the recyclability of black plastics, many manufacturers have developed products intended to replace carbon black. For example, BASF has launched the black pigment Sicopal Black K 0098 FK and Clariant the three pigments Graphtol Black CLN, Solvaperm Black PCR, and Polysynthren Black H.

Another problem is seen to be the grey or brown undertone frequently present in recycled, colored plastics. Plastics processors must take this into account in coloration. In coloring recyclates, it is often not possible to use the same formulation as for virgin material. In addition, the undertone of the recyclates varies between different batches. To achieve uniform coloration of products over time, the colorant formulation must be tailored to the particular recyclate. Assistance can be provided here by software tools that calculate the effect of the recyclate undertone on the final color. In this way, unsuitable material can be separated out or the necessary correction to the colorant formulation calculated. Clariant, for example, offers such a tool. ■

*Florian Streifinger, Editor*



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