



Royal
Houweling

Bright



eco-coating

The much greater temperature reduction in the greenhouse is a major advantage.



Dico Bac,
Bac Orchids BV

The stronger temperature reduction is a major advantage.



Brothers Dico and Gert-Jan Bac specialize in the cultivation of cut cymbidium orchids. Bac Orchids offers a wide range of exclusive, strong varieties in a broad spectrum of fresh and vibrant colors. More than 130 different varieties are grown at the 5.6-hectare nursery in Moerkapelle.

"Quality and sustainability are central to everything we do. We organize our business operations in the most sustainable way possible so that the generations after us can continue to enjoy everything that lives around us," says an enthusiastic Dico Bac. "In concrete terms, this means that we work with thermal energy storage and solar panels, grow completely organically, and minimize the use of microplastics. That's why in 2024 we applied a new microplastic-free screening agent, Bright Eco-Coating, to the greenhouse for regulating light and temperature for the first time."

The cut cymbidiums are grown very calmly, which results in thicker stems and larger flowers. "With this way of growing, we harvest only 10 stems per square meter per year. We grow without LED lighting, allowing us to further reduce our CO₂ footprint. This does mean that steering and controlling light and temperature are crucial."



Watch our video "from development to recycling" via the QR code.

"In the sections where I applied Bright Eco-Coating for the first time, I noticed that the temperature was significantly lower than in the sections where I had applied a different coating. For my orchids, that is a major advantage, as it is a cold-loving crop."

Dico Bac has three tools at his disposal to create the ideal greenhouse climate. "I vary humidity control, screening screens, and chalk to achieve the right growing conditions. Normally, with an outside temperature of 25°C, a coating allows me to keep the greenhouse temperature roughly equal to the outside temperature. Last summer, however, I noticed that in the sections where I applied Bright Eco-Coating at a 60% concentration, the temperature reduction was much greater. This additional cooling resulted in a lower heat peak in June, July, and August."

Another characteristic of Bright Eco-Coating is that it wears off gradually with the season. "I applied it twice in this section: the first time in late March/early April, and the second time in early July. Toward autumn, when higher light levels are desired, the chalk slowly starts to wear off. When we suddenly had a few days of intense sunshine, I was glad there was still some chalk left. Otherwise, I would have suffered considerable burn damage to my flowers. The natural wear-off process happens automatically, without chemical cleaners. This is better for the environment and saves me a significant amount of money and labor hours. However, you do need to keep a close eye on how much remains. The rate of wear depends on rain and wind."

Dico Bac applies the liquid chalk himself. "This new microplastic-free coating is very easy to work with. It is a bit thicker than what I'm used to, which takes some getting used to. While applying it, I noticed that I could cover the glass much more precisely thanks to that thickness. I also wasted significantly less, because it doesn't run off into the gutter. And of course, that extra cooling is partly due to that as well."

"My experience with Bright Eco-Coating has been very positive, despite the heavy rain showers we had this summer. At a 75% concentration, Bright Eco-Coating would remain in place even longer, but that's not an option for my crop because I need the light intensity."

