As a design and development engineer in the field of decoration of hollow bodies, printing inks and varnishes are dried by means of UV.

LED UV printing inks and varnishes are already available for individual applications. But not for all applications by far.

In 1997, the company HOBA in Bodelshausen (today ppg) announced UV coating varnishes for aerosol cans within 2 years.

So far, these coatings have still not progressed beyond a trial stage. However, packaging designers are constantly raising the bar. VOC-based coatings are still used here today.

In the plastic sector tubes, cartridges and sleeves UV coating lacquers are used today. These coatings cannot (yet) be cured and polymerized by LED.

LED curing coatings do not have the hardness and resistance and barrier properties (in both directions) that are required.

If UV curing varnishes are no longer allowed, then VOC based varnishes will be used again. This then pleases me personally because I also design these dryers. But energy consumption and VOC emissions are no longer state of the art.

If LED curing coatings can take over these functions in the future, then the manufacturers will change on their own, because the energy savings and reduced heat load of the products by means of LED is not insignificant.

Furthermore, water treatment by means of LED, be it cistern water in buildings not connected to the mains or treatment of pond water for algae control, is currently not suitable.

The exemption for further use should be extended in any case.

For a higher recycling rate, I think a deposit system makes sense. 100 € deposit and also every pond clarification lamp comes back. Banning of companies that do not return their UV tubes to the manufacturer.

Answer provided as is by Ulrich Oberacker on behalf of Hinterkopf GmbH on the 27th of April 2021. This text has been translated, the RoHS Pack 23 exemption evaluation team decline any responsibility in the case of translation errors, the original document is available in German at <u>http://rohs.biois.eu/Answer_Hinterkopf_GmbH.pdf</u>.