

# No Chance for the Cycle Concept?

## Steps to More Sustainable Packaging in the Medical and Cosmetics Industries

Even more than with foodstuffs, what matters in most cases with drug packaging is the contents protected by the wrapping. These are not good conditions to pursue a cycle concept for packaging. But times are changing – perhaps.

The most important characteristics of pharmaceutical and medical primary packaging are to protect the contents and to ensure that patients and healthcare professionals can use the medicinal products as intended, as the contents are often extremely effective, valuable and expensive. We would like to find out from Niels Düring what this means for progress towards sustainability in packaging as he is responsible for plastic packaging at Gerresheimer.

**Kunststoffe:** Mr. Düring, how restrictive are you finding regulations on the path to more sustainable pharmaceutical packaging?

**Niels Düring:** Pharmaceutical packaging is justifiably not concerned primarily with the question of how much waste is generated by the packaging, but above all with minimizing losses of medicines and risks to patients. Therefore, the choice of materials is very important when manufacturing packaging. In the past this has mainly meant using materials from petrochemical sources specifically earmarked for pharmaceutical applications.

**Kunststoffe:** Could manufacturing waste be reused?

**Düring:** It must always be virgin material; this means that the polymer used is only melted once in the production cycle. Recycled materials and self-sorted waste from our own production are not yet permitted. This is one of the points that we are currently investigating with our customers as well as the approval authorities. Recycling sorted internal waste would be a comparatively quick and effective measure to ensure a more sustainable use of resources. In my opinion, the risk that this change to processing poses is acceptable and would also be a clear step in regulatory terms towards helping the environment.

**Kunststoffe:** Could materials from chemical recycling be used?

**Düring:** Even after chemical recycling, pharmaceutical packaging would be difficult to reuse because the material was in contact with drugs and we do not know how they interact with the materials used for packaging.

**Kunststoffe:** However, chemical recycling should supply once more the raw materials that correspond to a given virgin material.

**Düring:** In theory perhaps, but in practice the material must be approved for use – and today no material from chemical recycling has this kind of approval for drug packaging.

**Kunststoffe:** Gerresheimer already introduced packaging based on biomaterials some time ago. How did you find this experience?

**Düring:** We started the first tests on biomaterials four or five years ago that are obtained from cane sugar waste material. We have investigated all our bottles and other PET containers to see if there is any interest in the market for a bio-based version. Interestingly, there was a lot of interest in this at first, but when potential customers saw that this would mean a price increase they have all withdrawn so far. In addition to the price, uncertainties in the supply chain when obtaining the raw materials have been a reason for our customers' reluctance.

**Kunststoffe:** And this has not improved in the meantime?

**Düring:** In the last six months, customers have been requesting these solutions more actively and specifically and are considering whether this could be an option for them despite the higher price. This shows that awareness of the environments is much higher on the agenda today. The willingness to pay extra for material from renewable sources has grown.

**Kunststoffe:** But we are referring to medicinal products that are comparatively expensive goods as a general rule. Does a small extra charge on the packaging really matter?

**Düring:** Pharmaceutical companies have come under considerable pressure from generic drugs in recent years because this development has reduced the profitability of their branded products. This is why cost awareness has also increased significantly in this industry in the past five to ten years. Even an extra charge of less than one thousandth on the end product was apparently enough to question more sustainable packaging. But now a change seems to be on the cards as individual companies are recognizing that this small extra charge could bring them advantages in the market. And we must also bear in mind that packaging plays a different role compared with other products: people buy what the doctor prescribes – packaging only plays a secondary role.

**Kunststoffe:** So does sustainable packaging in the pharmaceutical sector hardly stand a chance at the moment?

**Düring:** First, policymakers would have to create the framework to en-

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sure – assuming the products in question are equally effective – that health insurance providers pay for the most sustainably produced option, rather than the cheapest, as is currently the case throughout Europe. This is also a political decision, as is the question of whether internally recycled production waste can be used again for the manufacture of primary pharmaceutical packaging.

**Kunststoffe:** So are you still driving forward the development of sustainable packaging even after the bad experiences with “bio-based packaging”?

**Düring:** We are continuing to optimize resources through reuse or weight reduction, and we also believe in the use of biomaterials for primary pharmaceutical packaging. There are some markets that are more ready for these kinds of sustainability argu-

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*People buy what the doctor prescribes – packaging only plays a secondary role.*“

Niels Düring

ments such as the cosmetics market. Some of our customers in that market are already demanding that more than 40 percent of PET be made from recycled raw materials and are actively using the sustainability argument in their communications.

**Kunststoffe:** Why 40 Percent?

**Düring:** We are not aiming for packaging made of 100 percent recycled material in cosmetics, but customers want a substantial proportion. Achieving more than 40 percent was ambitious at first, mainly because of the uncertain supply of recycled materials. From a technical point of view, it would not be a problem to get to 80 percent. The bigger the container, the higher the share of recycled material mixed in, as with a master batch. ■

*The interview was conducted by Dr. Karlhorst Klotz, Editor.*



### About the Interviewee

**Niels Düring**, Global Executive Vice President at Gerresheimer, began his career in 1982 and became owner and managing director of Dudek Plast A/S in 1996. After the sale of his company to Superfos, he became CEO in 1999 and developed the pharmpackaging business there. Since Gerresheimer took over the company in 2006, he has managed the Primary Plastic Packaging division and is currently driving forward its global presence.

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