IQPAK system combines the advantages of disposable and reusable

GVM: market potential of 15 billion fillings is realistic

In the long term, reusable packaging will help to significantly reduce the amount of waste from packaging. The IQPAK system stands out among the many reusable solutions that are currently in the concept phase or under development.

The IQPAK reusable system consists of reusable and disposable components. The basis is the supporting **system layer** made of polypropylene (the system layer), which is reusable as a dimensionally stable reusable component. The system layer can take different forms, e.g. cup or tray. It is equipped with an RFID chip so that various information about the packaging can be stored digitally. A plastic film is applied to the inside of the packaging. Only this film, the **content layer**, comes into contact with the product. A film is also applied to the outside, the **handling layer**. This polypropylene film can be printed with product-specific information.

This combines the respective advantages of disposable and reusable solutions in one system. The most important advantages and unique selling points of the IQPAK system include the following:

1. The reusable packaging **does not** need to be **rinsed**.
2. The reusable packaging can be **sealed.**
3. The packaging can be **customized** without a label and **does not** have to be **returned to the manufacturer.**
4. The **return does not** have to take place **through retailers. The chip** in the packaging enables a variety of other return routes.
5. **Different manufacturers** can use the same system layer.
6. The system layer does not have to be returned to the filling plant where it was previously filled. This reduces **transportation costs**.
7. **Returnables are handled** by the **refurbishment center** and not by the bottling company or retailer.
8. IQPAK packaging can be used on **existing filling lines**.
9. The content layer is **adapted to the filling product** so that each product is given the necessary barrier. This means that the packaging is not limited to the first area of application, but can be used in a **range of applications.**
10. The RFID chip in the packaging enables new forms of **customer interaction**.
11. **Even recycled materials** that are not approved for use in food packaging can be used in the system and handling layers. This is because only the content layer comes into contact with the product.

12. All disposable and reusable components of the system are almost completely **recyclable**.

13. Compared to disposable packaging and conventional reusable packaging, the IQPAK system can be **functionally** and **economically competitive.**

14. Switching to IQPAK packaging can reduce the **amount of waste** by 55 % - 60 %.

On the other hand, there are two major **drawbacks**:

1. IQPAK packaging cannot be designed to be completely transparent, which limits the range of applications.

2. For IQPAK packaging to be used nationwide, a decentralized system of refurbishment centers needs to be in place.

The second point in particular represents a barrier to market entry that can only be overcome if the substitution potential for IQPAK packaging is so high that the investment in equipment pays off in the long term. With this in mind, GVM has calculated IQPAK's **substitution potential**:

1. IQPAK can replace a wide range of disposable packaging solutions, including cups, trays and block packs.

2. A conservative assessment of the probability of substitution (i.e. taking into account economic, ecological, marketing and convenience-related exclusion criteria) suggests that the relevant market for IQPAK is **15 billion fillings** per year in Germany. This corresponds to 360 fillings per household per year.

3. An optimistic assessment indicates that the market could be 1.5 times larger, amounting to 23 billion fillings. The probability of substitution by IQPAK was assessed more optimistically and further developments of the IQPAK system (e.g. the use of a threaded closure) were taken into account.

The IQPAK system is a reusable solution that is superior to conventional disposable and reusable packaging in a number of important ways.

The IQPAK system is not designed for a small niche market, but for a mass market, so it needs investments from major companies that take reusable packaging seriously. IQPAK has the potential to be economically viable and ecologically advantageous compared to other packaging systems.

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