

PRESS RELEASE

Product

Beyond Juice: KHS presents the first recyclable juice bottle made of 100% rPET

- Bottle concept provides maximum product protection for sensitive beverages
- Bottle fully recyclable thanks to FreshSafe PET® technology
- Renowned environmental service provider issues quality seal with top marks

Dortmund, October 16, 2019 – There is an increasing demand from consumers and the beverage industry alike for packaging which saves on resources. Companies who design a container nowadays must also take its entire life cycle into account. KHS is addressing precisely this issue with its new Beyond Juice concept. For the first time the Dortmund systems provider has now developed a fully recyclable juice bottle made of 100% recycle whose FreshSafe PET® barrier system offers unique product and freshness protection. In combining its market-proven systems KHS is taking an interdisciplinary and holistic approach to the beverage industry's striving towards greater sustainability.

"With Beyond Juice we're providing concrete answers to the challenges of the beverage industry, taking the juice bottle as an example. Also in view of the current debate on plastics practical, environmentally-friendly systems are becoming more and more important," says Philipp Langhammer, product manager for barrier technology at KHS Corpoplast. What is needed is an integral and sustainable type of packaging suitable

for the entire spectrum of sensitive beverages. “When developing the bottle we thus strictly adhered to our credo of environmental protection, recyclability and maximum product protection,” states Langhammer. The PET container was designed by the KHS experts from the holistic Bottles & Shapes™ consultancy program together with environmental service provider Interseroh from Cologne according to their latest design guidelines.

Environmental service provider issues recycling seal

Following a number of optimizations the Beyond Juice bottle was issued with the Made for Recycling seal by Interseroh – the first PET bottle to score a full 20 out of 20 points. “Thanks to the seal on the label, for the first time consumers can now allow the bottle’s truly excellent recycling properties to help influence their decision to buy when standing in front of the supermarket shelf,” says packaging engineer Julian Thielen from Interseroh. “In the medium term, for packaging the criterion of recyclability will additionally become just as important as the aspects of product protection, convenience and attractiveness – also on an international scale.”

Unique product protection

The Beyond Juice bottle satisfies all of these criteria – among other things with the help of FreshSafe PET®. “We were only able to give top marks when analyzing the bottle’s recyclability because KHS SiO_x barrier technology was used,” Thielen explains. “Alternative composite materials utilized as a barrier also often color the recyclate and yield an inferior quality.” Beyond Juice does not apply these otherwise usual composite materials which are added to the bottle material to protect the product and make pure-grade recycling much more difficult or even impossible. This topic is quickly gaining in significance on an international scale, too. This is illustrated, for example, by the plastics strategy presented by the EU

Commission at the start of 2018 which aspires to make all packaging waste in Europe recyclable by 2030.

FreshSafe PET[®] also ensures that sensitive, high-quality juices and spritzers, for instance, keep up to ten times longer than those filled into uncoated bottles. This is primarily thanks to the wafer-thin layer of glass applied to the inside of the bottle which prevents oxygen from penetrating the bottle and CO₂ from escaping from it.

Trouble-free recycling of the entire bottle

The label area on the Beyond Juice container has been kept so small that sorting systems recognize it as a PET bottle. This makes sure that the container can be reintroduced to the recycling loop and is not simply used to make energy. It was also important to select the right kind of adhesive so that the label can be separated from the plastic in the recycling process and there is no unintentional soiling during the washing process.

The new KHS bottle concept has also been developed as a film-free pack for recycling purposes. Dots of adhesive which are strong and secure yet easy to remove hold the bottles together. With Nature MultiPack[™] from KHS the film otherwise used to package the PET bottles as a six-pack, for example, is no longer required. This adhesive is also easily removed during recycling. “By doing away with the secondary film around the pack we’re helping to further reduce this type of packaging waste by up to 90%,” Langhammer claims.

As the Beyond Juice bottle consists of 100% rPET, it significantly helps to reduce the carbon footprint left by packaging throughout its entire life cycle. New studies by recognized trade associations confirm that PET bottles made of 100% recyclate have a much lower carbon footprint than containers made of what is known as virgin PET. Langhammer concludes

that “at a production of 50 million bottles a year more than 1,500 metric tons of raw material in the form of new PET could be saved by our bottle.”

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(Source: KHS Group)

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Press release captions

Beyond Juice bottle 1: With its FreshSafe PET® barrier system the Beyond Juice bottle provides a high level of product and freshness protection for sensitive beverages.

Beyond Juice bottle 2: The new KHS bottle concept has been devised in cooperation with environmental service provider Interseroh. The company from Cologne has issued the Beyond Juice container with its Made for Recycling seal.

Embossing: With its new Beyond Juice bottle concept KHS has developed a fully recyclable juice bottle made of 100% recyclate for the very first time.

Nature MultiPack™: The Beyond Juice bottle is also available as a film-free pack. Thanks to the Nature MultiPack™ packaging system the bottles are held together by dots of adhesive which are strong and secure yet easy to remove.

Philipp Langhammer: "With Beyond Juice we're providing concrete answers to the challenges of the beverage industry, taking the juice bottle as an example. Also in view of the current debate on plastics practical, environmentally-friendly systems are becoming more and more important," says Philipp Langhammer, product manager for barrier technology at KHS Corpoplast.

Julian Thielen: “In the medium term, for packaging the criterion of recyclability will become just as important as the aspects of product protection, convenience and attractiveness – also on an international scale,” says packaging engineer Julian Thielen from Interseroh.

About Interseroh and the Made for Recycling seal

The Made for Recycling seal was developed in 2018 by environmental specialist Interseroh, a subsidiary of the ALBA Group. It shows the consumer that a product package has been optimized for recycling. The system was developed together with the bifa environmental institute and verified by the experts at the Fraunhofer Institute for Process Engineering and Packaging (IVV).

About KHS GmbH

KHS GmbH is one of the leading manufacturers of filling and packaging systems for the beverage, food and non-food industries. The KHS Group includes the following companies: KHS GmbH, KHS Corpoplast GmbH, and numerous subsidiaries outside Germany, located in Ahmedabad (India), Sarasota and Waukesha (USA), Zinacantepec (Mexico), São Paulo (Brazil) and Suzhou (China).

KHS GmbH manufactures modern filling and packaging systems for the high-capacity range at its headquarters in Dortmund, Germany, and at its factories in Bad Kreuznach, Kleve and Worms. The group's PET expertise is pooled at KHS Corpoplast GmbH in Hamburg, Germany, where innovative PET packaging and coating systems are developed and produced. KHS is a wholly owned subsidiary of the SDAX-listed Salzgitter AG corporation. In 2018 the KHS Group and its 5,081 employees achieved a turnover of around €1.161 billion.

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