From bottle to bag: The next generation of sustainable woven plastic packaging

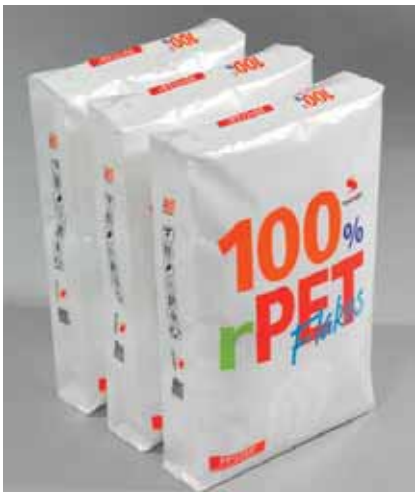
Overflowing landfills, plastic waste in our oceans – the issue of plastic pollution is no longer merely a concern of environmental activists. It has become a matter of public interest and government legislation, and has also prompted big retailers to embrace waste reduction and recycling programs.

The trend towards sustainable packaging has been growing significantly in the past years, bringing into focus reusability, bio-degradability and recyclability of the packaging materials. With the development of the production technology for woven plastic sacks made from rPET, Starlinger & Co. GmbH now offers the opportunity of closed-loop production for this type of packaging. "Starlinger builds on decades of experience in woven polypropylene sack production, a type of packaging that is reusable and recyclable", says Stéphane Soudais, Head of Starlinger's Consumer Bags Division. "Since 2013 we can produce PET tape fabric from virgin PET and recycled PET pellets on our machines which can be used for a variety of packaging applications. Now we have achieved another breakthrough in working with recycled PET: we can produce rPET tapes directly from PET bottle flakes." Fabric made of PET tapes can be converted to various types of woven sacks or used for technical applications, for example carpet backing or geo-textiles. For Soudais, fabric made of rPET flakes brings in an interesting advantage: "With this material, producers of woven plastic packaging have the option of true closed loop production."

Woven rPET sacks - sustainable and more

PET is a plastic that can be recycled and upcycled economically. In many countries exist functioning collection and recycling schemes for PET which provide a source for recycling material.

In the area of consumer products, where many stakeholders are already putting a focus on sustainability, fabric produced from rPET flakes can be used for various types of sacks. They provide an attractive packaging for dry bulk goods such as fertilizer, building materials, pet products such as kitty litter or pet food, as well as grains and flour. PET tape fabric stands out for its excellent aroma and grease barrier as well as its food safety; rPET fabric produced using Starlinger decontamination technology meets US FDA (Food and Drug Administration) requirements for use in food packaging. For packaging users who want to switch to woven rPET sacks for filling their product, only low investment is required.



*PP*STAR sacks made of rPET flakes are not only eye-catchers on the shelves – they can be produced in a closed-loop system.*

100% closed loop packaging that catches the eye

For consumer applications, attractive package design is possible by laminating the rPET fabric with reverse printed BOPET film, which gives the sacks a stunning shelf appearance. A perfect example of eye-catching design on a sustainably produced bag are rPET PP*STAR bags – pinch bottom type bags which are produced on machinery developed by Starlinger. Made of polypropylene, they are already a popular packaging for sensitive products such as dry pet food. Now, they can be produced directly from PET bottle flakes. rPET PP*STAR bags are a very sustainable packaging option that gives the product both a high-class look and best possible protection: they are fully recyclable and can be used to produce PP*STAR pinch bags again – or any other woven plastic bag type, for that matter – thereby closing the loop in the packaging cycle.

Nestlé claims new process that cuts sugar content by 40%

Nestlé has found a process to naturally reduce sugar content by as much as 40 per cent in what the maker of Kit Kats claims is a first for the industry, as pressure to produce healthier drinks and snacks ratchets up amid an obesity epidemic.

The world's largest food and drinks company said that it was securing a patent for its innovation and would gradually begin to introduce it into a range of its chocolate and candy brands from 2018, allowing it time to prepare for the shift.

Stefan Catsicas, Nestlé's chief technology officer.

Stefan Catsicas, Nestlé's chief technology officer, said that humans only taste a fraction of the sugar they consume because the crystals do not dissolve completely until they are swallowed. He said that his team managed to alter the structure of crystals so they contain less sugar, but taste just as good, having tested it out on a number of taster panels.

"We decreased the total content of the sugar crystal, so for the same sensation you eat much less," Mr Catsicas said.

As many consumers seek healthier diets and governments battle to control high obesity levels which is adding billions of dollars to healthcare costs, the biggest food and drinks companies are investing heavily in innovations to meet these new demands.

Nestlé's breakthrough follows PepsiCo's recent commitment to spend billions of dollars creating new snacks and beverages, and reformulating existing ones to cut salt, sugar and fat content.

Nestlé's work on sugar reduction is part of a drive since 2004 to make its food more-healthy and it has been working on this latest innovation for the past two years.