



## Mondi flexible packaging “leapfrogs” ahead in the recycling game

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After almost four years of development, Mondi and Werner & Mertz will introduce a new, patented innovation in 2019: a 100-percent recyclable pouch with detachable decorative panels. The pouch replaces conventional flexible packaging for Frosch products. The pioneering design overcomes many shortcomings of the recycling process and is the result of a joint effort by Werner & Mertz, Mondi, EPEA Switzerland (Cradle to Cradle®), Der Grüne Punkt – Duales System Deutschland and Institut cyclos-HTP.



Reinhard Schneider, CEO Werner & Mertz, „undresses“ the Frosch pouch. Photo: Werner & Mertz

### Mission Impossible?



In 2014 Werner & Mertz decided to develop packaging that is recyclable in the fullest sense. This was before most fast moving consumer goods (FMCG) companies viewed a commitment to sustainability as an indispensable building block for brand equity. Several packaging suppliers told them it could not be realised. Then they met Mondi.

The project was truly ambitious. It was not about developing flexible plastic packaging that is only theoretically recyclable – packaging likely to end up in landfill. Rather, the design aim was to “reverse-engineer” the recycling process: to create packaging fit for every stage of the recycling process.

### **The challenges of true recycling**

A crucial and often neglected step in the recycling process is sorting. Failure to sort the collected packaging into material streams that recyclers can use leads to down-cycling – that is, the production of recycled material no longer suitable for its original application. “If you want to avoid a ‘garbage in, garbage out’ scenario,” explained Immo Sander, Head of Packaging Development, Werner & Mertz Group, “the entire value chain must be aligned – from packaging producers through players in sorting and recycling to buyers of recycled material.” This is the aim of the Recyclate Initiative that Werner & Mertz launched in 2012.

In order to develop packaging that would yield high-end recycled material, Werner & Mertz and Mondi consulted multiple recycling experts: Der Grüne Punkt – Duales System Deutschland, EPEA Switzerland as well as Institut cyclos-HTP for later certification.

The packaging needed to be made of a polyethylene mono-material, which is a prerequisite for recycling. “Our collaboration with Werner & Mertz shows, in the best possible way, how challenges can become solutions,” said Jens Kösters, Manager Technical Services, Mondi Consumer Goods Packaging, “We worked our way through an ‘innovation funnel’— testing different materials until we arrived at a designed-for-recycling concept that convinced everyone at each point of the value chain. Furthermore, the concept offers clear benefits related to sealing strength and maximum filling volume.”



The Frosch mono-material pouch with detachable panels. Photo: Mondi

### **A giant leap: a pouch with detachable decorative panels**

A final touch was added to solve the issue of recycling printed plastic materials. The pouch has two layers. “We dress the pouch up in an eye-catching ‘outer garment’ that is printed with brand design on the front and consumer info on the back,” said Sander. “When the pouch is empty, we ‘undress’ it automatically by shredding and sorting the two components into separate recycling streams.”

The patented pouch is now 100-percent recyclable. The material is of course free of glue or adhesive. Spout and cap are also made of polyethylene – which means the recycled material will be equivalent in quality to the original material.

[we-for-recyclates.com](http://we-for-recyclates.com)

Video: YouTube (Mondi flexible packaging “leapfrogs” ahead in the recycling game)  
*About Mondi:*



*Mondi is a global leader in packaging and paper, employing around 26,000 people in over 30 countries. We are fully integrated across the packaging and paper value chain - from managing forests and producing pulp, paper and plastic films, to developing and manufacturing effective industrial and consumer packaging solutions. Sustainability is embedded in everything we do, with clearly defined commitments across 10 action areas. We delight our customers with our innovative and sustainable packaging and paper solutions.*  
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