

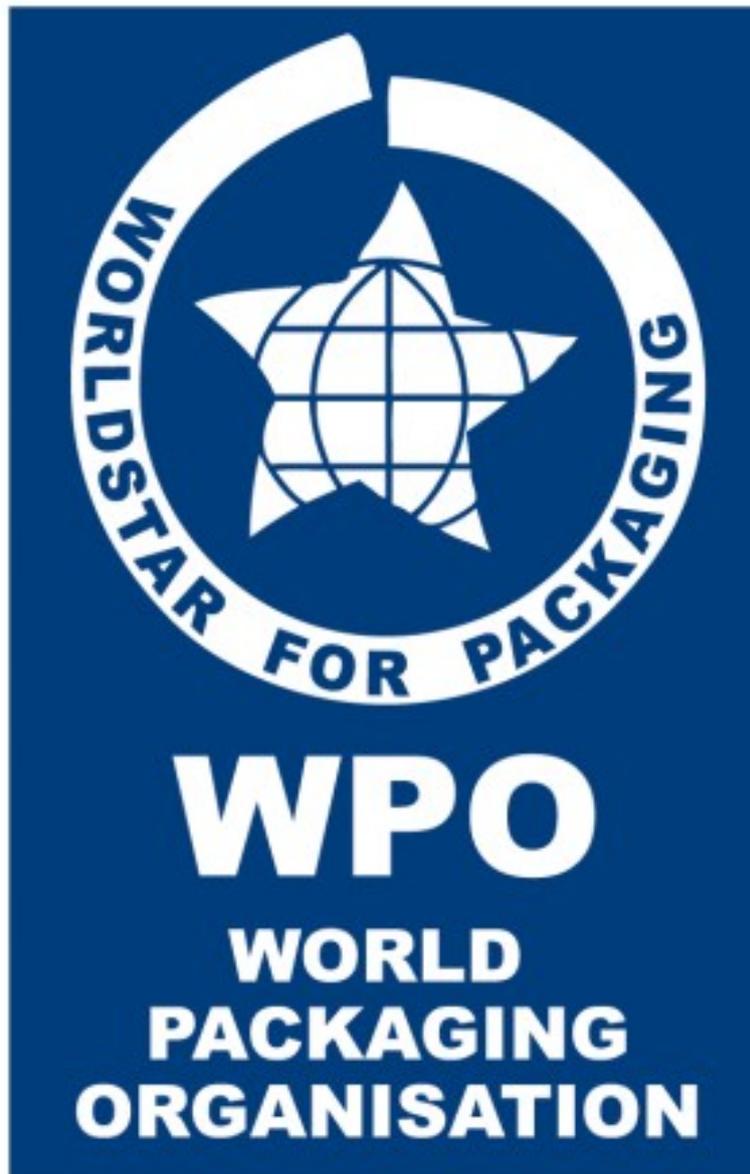


## Worldwide Acclaim for Reduce-Reuse-Recycle Principle

14-Feb-2020 - Mainz

High accolades go to an innovation developed especially for the circular economy. The patented stand-up pouch from Werner & Mertz and Mondi has been chosen to receive the prestigious WorldStar Packaging Award in the "Household" category.

"The highly innovative 100 percent recyclable pouch leapfrogs sorting and recycling hurdles on the way to true recyclability. [...] This is Cradle-to-Cradle!", said the competition's jury of the World Packaging Organization (WPO) about its decision. The award will be presented during the trade show Interpack in Düsseldorf on 8 May.



**WORLDSTAR  
WINNER 2020**



In a four-year project based on Cradle to Cradle® principles, the Mainz cleaning products company Werner & Mertz and the global packaging and paper firm Mondi developed a completely recyclable pouch of a monomaterial (polyethylene) with a removable sleeve or wrap-around label. The concept solves the problem of recycling printed plastic. About 80 percent of the packaging material is not printed and therefore can be recycled with no loss of quality as it is not contaminated by ink. The remaining 20 percent, the printed sleeve, is completely recyclable and, because no adhesives or bonding agents are used, the material can flow back into new applications. The complete recyclability was certified by the independent Institute cyclos-HTP and Interseroh. Interseroh certified that the stand-up pouch has "very good recyclability that cannot be optimized any further."



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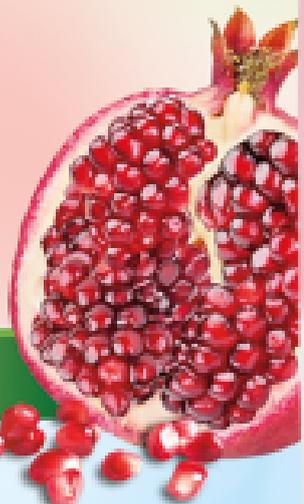




Photo: Werner & Mertz

## Pouch design is revolutionizing the recycling industry

The design objective was to use "reverse engineering," starting from the end of the product life cycle, and create packaging fit for every stage of the recycling process. With the involvement of all stakeholders along the entire supply chain, it was possible to design packaging perfectly suited to recycling and the circular economy.

The development of the stand-up pouch even influenced the design of sorting facilities. Because the pieces of plastic sheeting smaller than an 8.5 by 11-inch paper could not be handled by sorting and recycling equipment, the material was thermally recycled, i.e., incinerated. "Plastic sheeting makes up about 40 percent of the waste in the Yellow Bag and represents enormous but untapped potential! In the sense of "Design for Recycling" it was important to us to develop a stand-up pouch that was not just theoretically recyclable. It also had to ensure practical implementation of the recycling process," said Immo Sander, developer of packaging at Werner & Mertz. During the years of development work, designers consulted with manufacturers of sorting systems in order to guarantee separate sorting and recycling.

## Reduce-Reuse-Recycle

The patented stand-up pouch is the first packaging that complies with the three Rs -- reduce, reuse and recycle. The pouch can be recycled completely, so the plastic remains in the closed material loop (recycle). Compared to a bottle, the pouch saves 70 percent on packaging material for the same amount of product (reduce). Finally, thanks to the refill packaging, a product bottle can be refilled repeatedly. It's like having a refilling station at home (reuse). Still another special feature: the original bottle for Werner & Mertz Frosch consumer brand consists of 100 percent used plastic from post-consumer household waste collections.



Graphic: Werner & Mertz

## Allies required for further development

The first monomaterial refill pouches for Frosch brand products have been on retail shelves since November 2019. Over the course of 2020, Werner & Mertz will convert all its Frosch brand pouches to the new design and then expand the conversion to include its green care PROFESSIONAL brand for professional users. The cleaning products company based in Mainz has no intention of resting on its laurels, but is working on bigger plans. In the future the flexible plastic packaging not only will be completely recyclable but also made of recycled materials. When sufficient amounts of packaging go into recycling systems that comply with Design for Recycling guidelines, this packaging solution can be realized with recyclates and spare the use of new materials. "In this chicken or egg situation, we lay the foundation with our pouch and hope for imitators. After all, as far as climate change is concerned, we have no choice but to increase recycling rates significantly," said Werner & Mertz owner Reinhard Schneider.

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