PRESS RELEASE
April 27, 2023 **Greiner Packaging**

Greiner Packaging presents new generation of injection-molded r-PET cups at Interpack

After an intensive development phase, Greiner Packaging has achieved a breakthrough in cooperation with Engel – manufacturer of injection molding machines – and mold maker Brink nv.: Thin-walled cups made of (r-) PET can now also be produced using injection molding technology. They are suitable for filling lines, sealable and have considerable CO_2e savings potential. Thus, the cooperation opens up new opportunities for packaging designed for a circular economy.

- Thin-walled injection molding cups, which were previously realized using PP, can now be produced from r-PET.
- The use of 100% r-PET results in up to a 4-fold reduction in CO_2e emissions compared to virgin PP material.*
- The thin injection molded cups have an even wall thickness distribution and are designed to both filling line compatible and sealable.
- The development collaboration underlines the potential of cross-industry cooperation for a circular economy.

Lightweight, made of recycled material and optimally recyclable – this is what the ideal packaging should look like. For the sake of the environment, but also for conformity with legal requirements. Together with Brink and Engel, Greiner Packaging has now reached a milestone on this path with the development of a thin-walled, injection-molded plastic cup made of r-PET that is ideally suited to industrial requirements.

Recycled PET realizes great CO_2e savings potential
Strong availability, food-grade status and high quality – these properties make r-PET the material of choice when it comes to sustainable packaging. Until now, however, PET has mostly only been used for thermoforming applications and for injection-molded bottles and cans. Injection-molded cups with thin walls have been realized mainly with polypropylene (PP), which to date has – mechanically recycled – not received a positive EFSA opinion. Therefore, use of recycled PET in injection molding opens up new possibilities, especially for food applications. Injection-molded cups that were thus far made out of PP can now also be offered in up to 100% r-PET – an advantage of which being up to 4 times less CO_2e emissions compared to other materials.

Innovation with a reality check
Manufacturing the cups using the injection molding process ensures that the thickness of the walls of the cups is especially uniform, as the plastic is distributed evenly in the mold during injection – an essential aspect in terms of top load, quality and appearance. The injection-molded cups can be decorated by means of IML (in-mold labeling).

Sebastian Diensthuber, Global Product Group Manager, is delighted with the innovation: *"When developing the thin-walled, injection-molded cups made of PET, it was particularly important for us to develop a solution that was not only innovative but also able to withstand our customers' industrial requirements. The cups we developed together with Brink and Engel are designed in such a way that a transition to the new generation of cups is possible, both in filling and sealing".*

Moving towards the tray-to-tray cycle together
Greiner Packaging has proven its innovative strength by creating a new way to produce PET cups with up to 100 % recycled material in injection molding. Furthermore, this development proves the potential that cross-industry cooperation has for the realization of a circular economy. In the future, it won't only be bottles made of PET that will serve as source material

for new packaging. Packaging of all kinds should find its way back into the cycle (tray-to-tray recycling). For example, a plastic cup should become a plastic cup again in the future.

Packaging Facts:
Material: PET, 70% virgin, 30% recycled material
Volume: 200ml
Technology: Injection molding
Decoration: In-Mold Labeling (PP)
Wall thickness: 50mµ

* based on the Ecoinvent v.3.9 database.

Text and image: Greiner Packaging

Text document and high-resolution images for download:
https://greinerpackaging.canto.de/b/K61JD

Caption: Thin-walled injection molding cups, which were previously realized using PP, can now be produced from r-PET – both filling line compatible and sealable.

About Greiner Packaging

Greiner Packaging is a leading European manufacturer of plastic packaging in the food and nonfood sectors. The company has enjoyed a reputation for outstanding solutions expertise in the fields of development, design, production, and decoration for over 60 years. Greiner Packaging responds to the challenges of the market with two business units: Packaging and Assistec. While the Packaging unit focuses on innovative packaging solutions, the Assistec unit is dedicated to producing custom-made technical parts. Greiner Packaging employs a workforce of more than 4,900 at more than 30 locations in 19 countries around the world. In 2021, the company generated annual sales revenues of EUR 772 million (including joint ventures), which represents almost 35% of Greiner's total sales.

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