

## Netstal at the NPE: Recyclable thin-wall packaging made of transparent PET

**(Näfels, 11 March 2024) At the NPE (Booth W223), Netstal will be demonstrating what sustainable and recyclable thin-wall packaging can look like. A thin-wall cup made from 100% PET will be produced on a hybrid Elion 3200. The clear cup has been optimized for joint recycling with PET bottles.**

The recycling rate for thin-walled plastic packaging, such as cups for dairy products or sandwich toppings, is still low worldwide. PET bottles, on the other hand, play a pioneering role in recycling. Across Europe, half of all PET bottles placed on the market were recycled in 2020. The trend is also rising worldwide. Looking at all PET packaging, the rate is 35% (source: Statista). Due to its good recyclability and the established recycling systems in several countries, the idea of using PET for thin-walled packaging and making it recyclable is an obvious one. PET packaging must meet certain criteria so that it can be collected via the established PET collection systems and processed together with PET bottles into high-quality rPET resin. Reto Gmür, Product Manager Packaging at Netstal, says: "Clear packaging or the absence of color additives is preferred in order to achieve the purest possible quality of rPET. The recycled material obtained in this way can then be processed into new bottles or packaging."

### **Sustainable thin-wall cup produced in a climate-friendly way**

Netstal and its system partners are demonstrating such a recycling-optimized solution as part of an exhibition project at the NPE. The clear cup weighs around 15 g and has a filling volume of 450 ml. Netstal processes virgin PET from the Eastman Chemical Company. The cups are returned to the PET cycle via the NPE recycling program. The labels are also made of PET and are provided by Belgian IML specialist Verstraete. The test mold with two cavities and the IML robot, which inserts the label into the cavity and removes and stacks the finished cups, are supplied by Canadian partner StackTeck.

The PET cup is molded in a cycle time of around 4 seconds on an Elion 3200, which has the necessary speed, performance and dynamics with its electric toggle clamping unit and hybrid injection unit. By recuperating kinetic energy from the clamping unit, the Elion is one of the most energy-efficient injection molding machines on the market. In high-speed applications, the Elion consistently operates in efficiency classes 8 and higher of the latest Euromap 60.1 standard. The injection unit with RFC injection control shines with its leading shot-to-shot consistency. This is only available from Netstal in this form: The force-dependent pressure changeover is independent of the material properties and enables a constant part weight within the narrowest tolerances. Netstal customers do not have to pay any extra for this, because the highest precision has been standard at Netstal for decades.

Thanks to the adaptive pressure reduction, the hydraulic system pressure is permanently regulated at the optimum point. Reto Gmür explains: "This option offers the customer enormous advantages. With a lower pressure, we put less strain on the axles of the machine. Availability is therefore even better, and the machine consumes less energy. At the end of the day, Netstal users produce particularly efficiently and at the lowest unit costs."

#### **NET\_PM\_NPE\_PAC\_IMG1.jpg**

Live at Netstal: The transparent thin-wall cup impresses with its low material consumption and recyclability.

#### **NET\_PM\_NPE\_PAC\_IMG2.jpg**

Injection molding machine for high-performance applications: The hybrid Elion 3200 is the key element for the cost-efficient production of thin-wall packaging made of PET.

Further information and images in print quality can be found at: [www.netstal.com](http://www.netstal.com)



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**Cultivating values, creating value**

Netstal stands for globally leading high-performance injection molding technology. The Netstal brand goes back to our founding site of the same name in the canton of Glarus, Switzerland. We employ over 500 people at our headquarters with production plant in Näfels and in our subsidiaries.

We offer manufacturing companies in the packaging industry, beverage industry and medical technology high-performance machines which work extremely efficiently, with absolute precision and maximum reliability. We are continuously developing these solutions and deliberately incorporating innovative technologies. Because we feel jointly responsible for ensuring that our customers produce efficiently and sustainably. That is why we are driving the development of digitalization and the circular economy with our expertise and experience. We have focused our portfolio on performance, precision, and quality. Customers can find Elios and Elion series injection molding machines with clamping forces between 800 and 10,000 kN, the PET-Line preform system for up to 144 cavities, and turnkey system solutions from a single source. Our quality management is certified according to ISO 9001 and our accredited calibration laboratory meets the requirements of ISO/IEC 17025:2017.

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