



CIRCULARITY FOR PET THERMOFORMS

Zibo Containers is closing the loop in South Africa



Zibo Containers, based in Cape Town, has been a leader in the field of rigid thermoforming since 1997. Today, the company successfully performs what is considered the supreme discipline of PET recycling: tray-to-tray recycling.

“One of the most impactful contributions to the Circular Economy is Zibo’s ability to recycle not only PET bottles, but also thermoformed packaging, such as trays and clamshells—materials that are often more challenging to process,” tells Johan Smit, CEO at Zibo Containers. After washing and recycling these, the recovered rPET material is reintroduced into a broad range of packaging solutions, such as deli containers, bakery, drinking cups, etc. Zibo has a portfolio of over 1,500 unique SKUs (Stock Keeping Unit), and offers tailored packaging solutions “What truly sets Zibo apart is its ability to design and develop the majority of its molds internally, enabling rapid prototyping, customization, and cost-effective production,” explains Johan Smit.

Collaboration along the value chain is essential

Zibo promotes and enables a closed-loop system of packaging solutions, by recycling inputs, which were considered waste for landfills in the past. Advanced processing capabilities and collaboration are at the heart of tray recycling, according to Smit. “At Zibo, we collaborate closely with partners across the vertical supply chain, including material collectors who source rigid thermoformed PET, which is a common challenge in the recycling industry.

By fostering long-term relationships and shared sustainability goals, Zibo helps build a more resilient and transparent recycling ecosystem. These collaborations are essential for creating stability and reliability in the supply of recycled materials.” To ensure that the final product meets stringent quality standards, Zibo installed a crystallizer and a viscoSTAR solid state polycondensation reactor by Starlinger.



” Our EFSA-approved recycling process support our status as the sole converter in South Africa that recycles both PET thermoforms and bottles, reintroducing them into final products and advancing a truly circular economy.

JOHAN SMIT
CEO ZIBO CONTAINERS

Quality, efficiency, sustainability:

Smit named three key processing capabilities of the technology, that are particularly important to Zibo:

Significant IV increase:

The Starlinger viscotec system stands out for its ability to significantly increase the intrinsic viscosity (IV) of recycled PET material, which is crucial for producing high-performance packaging with enhanced mechanical and thermal properties.

Reduction in yellowing:

A key advantage is the reduction in yellowing during the decontamination and reprocessing stages.

Reduced energy consumption:

The technology allows the material to remain in flake form throughout the process, eliminating the need for pelletizing before reuse. This not only speeds up production but also reduces energy consumption.