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# Sidel unveils StarLITE®R – a new, ultra-efficient 100% rPET bottle for carbonated soft drinks



To help carbonated soft drink (CSD) packaging producers embrace material circularity, Sidel has launched StarLITE®R – a 100% rPET bottle. Sidel's signature StarLITE® family is evolving to address the challenges associated with working with recycled content.

StarLITE®R allows CSD producers to switch to rPET bottle production with ease and efficiency, while significantly reducing the impact on product quality or packaging integrity.

#### **Embracing 100% rPET**

With over 45 years of experience in the blowing and PET packaging sector, Sidel has developed a deep understanding of recycled PET resin characteristics and its impact on bottle production. Laurent Naveau, Packaging Innovator Leader at Sidel, comments on the challenge rPET resin can present the packaging industry:

"The characteristics of rPET are impacted by several factors. Firstly, by seasonality. Consumption habits fluctuate over the course of the year impacting the product category mix. And secondly, by different PET collection models which means that post-consumer PET material bales will vary from region-to-region and even country-to-country. The recycling process and equipment used will also influence PET resin. All these factors can pose new challenges for manufacturers looking to produce bottles with rPET content."

In addition to common CSD bottle manufacturing challenges such as stress cracking, roll out and bursting during blowing, a higher temperature is also required to process rPET. Consequently, packaging manufacturers can experience reduced control over rPET material stretching and distribution of the substance in the bottle-making process.

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Traditionally, greater variability in rPET resin leads to a narrower process window and lower bottle quality. However, Sidel's innovative base, StarLITE®R uses leading technologies to ensure efficient rPET bottle production by restoring a much wider process window. The StarLITE®R design is easier to blow as it can be done within a wider range of parameter settings on the blower achieving a much higher quality bottle.

#### High performance rPET bottle base

To achieve a high performing rPET bottle base, StarLITE®R features an optimised mould base profile and uses an advanced stretch rod end design.

The new mould base profile allows for perfect material distribution through advanced stretching and a high base clearance for optimum stability. The advanced stretch rod end design has improved the preform end-cap material stretching and ensures accurate injection gate centering on the bottle. Finally, the perfect combination of grooves and venting holes allows for high-precision base feet formation.

The new bottle solution also utilises dual external and internal bottle base cooling to ensure a perfect shape. Externally, the process uses a mould base cooling circuit that focuses on the warmer bottle base zones and internally a hollow-stretch rod requiring no additional air supply is used.

Laurent Naveau adds: "StarLITE®R is designed to offer carbonated soft drink manufacturers the opportunity to embrace rPET. Sidel's new design bottle base achieves greater protection against deformation, increased resistance to bursting and optimum stability, while guaranteeing product quality."

#### **Seamless transition**

Utilising Sidel's expertise, the new bottle can be easily installed on existing production lines and adapted to fit current bottle designs. The solution is compatible with Sidel's signature blow moulders, EvoBLOW, Universal and Series 2 and suitable for high-speed productions.

#### **Carbon footprint reduction**

Lifecycle analysis shows that PET already has the best carbon footprint of all the packaging materials currently available and is the only food-grade, bottle-to-bottle plastic resin. Achieving full circularity at scale will make PET an even more sustainable choice since rPET reduces environmental impact up to four times more than virgin material.

Find out more about StarLITE®R for CSD and how you can access this kind of support for your business on the <u>Sidel website</u>.

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#### **Editor's Notes:**

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Sidel is a leading global provider of packaging solutions for beverage, food, home and personal care products in PET, can, glass and other materials.

Based on over 170 years of proven experience, we help shape the factory of tomorrow, through advanced systems and services, line engineering, eco-solutions, and other innovations. With over 40,000 machines installed in more than 190 countries, Sidel has 5,000+ employees worldwide who are passionate about providing equipment and service solutions that fulfil customer needs.

We continuously ensure we understand the evolving business and market challenges our customers face and commit to meeting their unique performance and sustainability goals. As a partner, we apply our solid technical knowledge, packaging expertise and smart data analytics to assure lifetime productivity at its full potential.

We call it **Performance through Understanding**.

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