

Press release

June 27, 2007

Sidel launches NoBottle, a new concept in PET bottle packaging for water

Sidel has developed an elegant, high-performance package that is also the lightest PET bottle yet for water (9.9 g per 500 ml bottle). This novel concept, dubbed NoBottle, is possible due to another Sidel innovation known as Flex.

Sidel started with a simple idea: design a water bottle that maximizes shelf appeal and minimizes environmental impact. After a year in development, Sidel is unveiling NoBottle, which combines beauty and unprecedented weight reduction (9.9 g for a 500 ml package) in a bottle that can be manufactured and distributed on an industrial scale. A new technology, known as Flex, has made this breakthrough bottle possible. Flex technology is based on flexibility and shape memory that allows packages to spring back to their original shape.

Flexible bottle with shape memory

Typically, when bottle weight is reduced, ribs are added to brace bottle walls. These bottles are brittle and noisy when compressed, which reduces shelf appeal and premium image. The ribs also limit the possibilities for lightweighting. "We had to stop focusing on ways to brace bottles," explains Franck Hancard, Packaging Solutions manager, "so we explored new avenues. After testing various plastic materials, we ultimately developed Flex." Flex technology combines plastic's flexibility with shape memory eliminating the need for ribs so designers are free to create all sorts of shapes, even for extremely lightweight bottles. These bottles are easy to grip, supple, and substantially less brittle than conventional bottles. And, thanks to shape memory, bottles are better able to withstand conveying, packing, transport and handling.

Expanding the possibilities for lightweighting has resulted in the aptly named NoBottle with a profile so pure and elegant, it almost seems to disappear, allowing the product inside to take center stage.

Eco-friendly packaging

Compared to the average weight of a bottle of water of the same capacity (13 g to 16 g) the 9.9 g NoBottle weighs 25 to 40 percent less, resulting in less plastic material to be recycled. "Water is the largest beverage market by volume with 160 billion liters consumed in 2006. It also represents the highest growth sector and is expected to expand by 5.7 percent annually between now and 2010. The additional tons of waste eliminated by this new, lighter design will be considerable," notes Hancard. This is especially true since the number of units sold on the water market is expected to catch up with soft drinks by around 2010 due to the growth of small, single-serve

containers (<750 ml). This was one of the key factors in Sidel's decision to develop the NoBottle in the 500 ml format.

Advanced technology gives bottlers the edge

Producing a 500 ml bottle weighing less than 10 g is an impressive technical achievement. Sidel looked at the entire manufacturing process, from blow molding to palletizing, to propose a simple solution to customers that could be tailored to their needs.

The NoBottle will be introduced and blow molded at the Sidel booth during the 2007 K Show, October 24th-31st in Dusseldorf, Germany.



See animation on www.sidel.com/en/no-bottle.aspx

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Sidel: shapes creator

Sidel is one of the world's largest suppliers of packaging equipment and expertise for beverages and liquid foods. It has 5,300 employees around the world and is a division of Tetra Laval.

Sidel designs, manufactures, assembles, supplies and sells complete lines for liquid foods in three main types of packages: glass bottles (disposable and returnable), plastic bottles (made of PET, HDPE and PP) and drink cans. Sidel also proposes a full range of plastic packaging solutions, from bottle design and manufacturing to final validation on a complete packaging line.

At Sidel, new packages are developed at four global centers of expertise where operations include package shape design, a feasibility laboratory, mold design and manufacturing. Teams of designers and draftsmen create over 300 innovative package designs every year. They are the force behind new trends on store shelves around the world, producing 3,500 drawings of bottles, preforms and engravings.

Sidel's expertise in plastic materials:

- Ensures high shelf impact with creative package shapes,
- Guarantees that packages are compatible with the customer's packaging equipment, including palletizing and loading equipment,
- Reduces bottle costs.

Sidel's engineering of mold parts also optimizes bottle quality and machine productivity.

In addition, Sidel has partnered with companies to develop and approve new plastic packaging materials for food applications including bi-oriented polypropylene, PLA and PET with light barriers for dairy products.

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