

# Leveraging the beverage

It took “a solid six months of just the concept development work”, said the director of packaging engineering at Dr Pepper Snapple (DPS), which is in the process of a merger with a coffee distributor, as he discussed the company’s transition from glass to PET bottles for its shelf-ready range of single serve teas and juice drinks.

Stephen Doerr, who is based at the DPS headquarters in Plano, Texas, said its key reason to switch to plastics was to provide an on-the-go experience for consumers, along with improved functionality and convenience, with the drinks producer enlisting the help of R&D/Leverage’s lab in Missouri.

Brand manager at DPS Noorin Sidi commented: “PET is the fastest-growing package type in the tea category. It’s what our consumers want and expect, and it opens Snapple up to more consumption occasions. Given their lighter weight and durability, PET bottles are more convenient for consumers to take on the go and, of course, they’re less breakable. More importantly, they deliver the same great Snapple experience that consumers know and love from the pop of the cap to the last sip.”

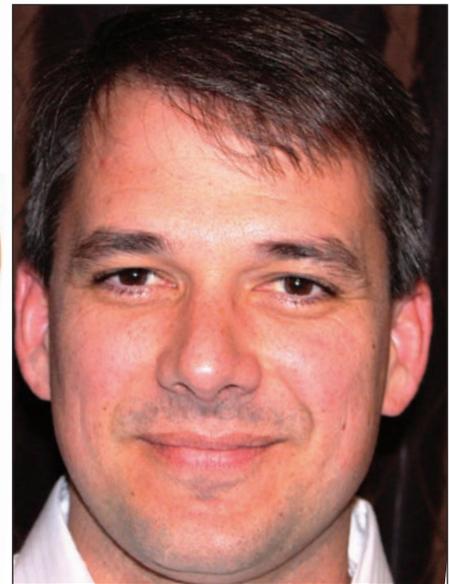
Sidi also emphasised how one of the major requirements of DPS was to maintain the look and feel of the original glass bottle so that there was consistency: “The aesthetic had to be just right and it had to satisfy the discerning eye of the consumer. From the shape of the bottle to the embossed ‘S’, the PET bottle has the appearance of the familiar glass bottle, but with only one fifth of the weight.”

Patrick George, senior director of packaging engineering at DPS, explained that preserving the original glass design would be the only way the newly converted bottle would work. “Success

would mean that when the bottles were put side-by-side we would not be able to tell the difference between glass and plastics,” he said.

In addition, it was important to retain the ‘pop’ sound created by opening the metal closure, which proved to be a challenge when using plastics. Given that it was much easier to attach a metal closure to a glass bottle, the same closure didn’t work with PET. According to George, because no one had ever experimented with a plastics body and metal top before, cracking the code to achieve the desired ‘pop’ sound became almost an obsession for the

A popular American soft drink brand recently converted its iconic glass bottle to plastics, whilst retaining the original metal cap. **Noor Adil** reviews the project and the numerous challenges involved



Above: Matching the original glass design was imperative, according to Patrick George.

Left: Dr Pepper Snapple’s newly converted PET bottle retains its ‘pop’ sound with the same metal closure

engineering team at DPS.

The process involved hot-filling, which shrinks the bottle and creates a vacuum. George explained how that was the precise moment where it became trickier: “The key was getting the vacuum just right. The challenge lay in figuring out how to generate enough of it for the metal lid to safely seal the bottle and provide the ‘pop’, but not so much that it deformed the plastic. That’s the number one thing we had to solve that hadn’t been solved before.”

Added to that was the challenge in ensuring

that plants would be able to easily handle production of both glass and PET bottles since the plastics bottles are being phased into the marketplace and have to work with existing manufacturing equipment. Another aspect to keep in mind was how the new bottles would have to be compatible with the vending machines.

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