

Team name: Just Pack It

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Project title: Universal Returnable PET Package for CSD or Juice by The Coca Cola Company

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Our group has decided to design a Universal Returnable PET Package for CSD or Juice by The Coca Cola Company. This challenge appealed to us because packaging plays a pivotal role in reducing waste. Reusing a bottle that is versatile will not only reduce our carbon footprint, but it will also reduce the amount of virgin plastic entering our system. By doing so, we will shift away from a linear economy and move towards a circular economy, where there is an emphasis on reusing materials for as long as possible.

By maintaining the universal contour shape, consumers are able to identify the iconic Coca Cola bottle shape. We added the punt to the bottom of the bottle to avoid rocking motions on the manufacturing line, so the bottle can stand upright and maintain its stability. It is necessary to have a greater wall thickness for the universal returnable PET bottle than a typical PET bottle for durability reasons. The green closure is made out of polypropylene, decorated with a recycling logo. Our tamper evident feature is an adhesive seal, covering half the cap and the top section of the shoulder. This eliminates the need for a plastic ring connected to the cap, found on most PET bottles. We also added the Coca Cola logo for marketing purposes.

Designing this concept is crucial for creating a more sustainable environment for future generations. The reusability factor and versatility of our polyethylene terephthalate (PET) bottle is ideal for reducing single-use plastics, shifting the world towards a circular economy. Because this PET bottle can be reused up to twenty-five times during its lifetime, we are using the existing material for as long as possible, eliminating the need for excess plastic. The use of rPET (recycled PET) is pivotal in helping Coca Cola reach its sustainability goals because it has a lower carbon footprint than manufacturing virgin PET.

This design is versatile in that it is made from clear PET resin, which is an important factor for reusability due to its transparency. We chose to use a water-soluble label, with UV flexographic printing, due to the fact that it can be removed by water during the washing process. The paper and glue label is completely biodegradable, given enough water pressure to act on the bottle. This option further contributes to a circular economy, allowing packaging engineers to

more easily design a refillable package. Each of our labels have one of Coca Cola's slogans, "Together Tastes Better." Working towards a more sustainable Earth is a team effort, implying that when everyone works together, we will be able to achieve this goal. On the back of our label, we explain the importance of the Universal Reusable Bottle, so the consumer understands why the Coca Cola Company is taking this initiative to minimize virgin plastic entering our stream. This plan will only prove to be successful if consumers are educated and willing to do their part.