

THE RECYCLING Journey



DISCOVER HOW A SHAMPOO BOTTLE GETS A NEW LIFE

1 Collection

Plastic is collected at curbside or drop-off locations



2 Sorting



A shampoo bottle that is made from high density polyethylene (HDPE) has specific properties that are different from other plastics. So as the shampoo bottle goes through the materials recovery facility (MRF), it passes by an infrared optical sorter. The sorter identifies the shampoo bottle as a certain kind of plastic (HDPE) and a jet of air separates it from the other plastics.

All the HDPE bottles are baled together and sold to a plastic reclaimer for processing.

3 Processing

The plastic bottles are ground into small chips of plastic called flake. This flake is then washed. During the washing process, any dirt and non-HDPE plastic is separated from the HDPE. One way different types of plastic are separated relates to their density. When put in water the lighter-weight plastic (such as HDPE) floats and the heavier plastic sinks. Once separated the flake is dried.



4 Converting

Now that the plastic flake has been washed and separated, it may be melted and extruded through a die, then cut into a pellet. This allows for a uniform raw material to be put back into a new product.



5 Manufacturing

The pellet can be used by manufacturers to make new shampoo bottles, using a process called blow molding. First, the pellet is melted then formed into a parison (a hollow, tube-shaped blob of melted plastic). The parison is clamped into the bottle mold and air is pumped into it. The air pressure pushes the plastic out into the mold. Once the plastic has cooled and hardened, the mold opens and the new bottle is ejected.



I became a shampoo bottle!

KEEP AMERICA BEAUTIFUL

I want to be