

Technology Transfer

Area of Technology: Home/Personal Care

Title of the Innovation: DOUBLE LAYERED LIQUID BOTTLE

Patent Grant Number: 306165

Brief About Innovation

Drinking water bottles are an item of mass consumption and needs to be priced as low as possible to make it within the reach of even the poor people. This is only possible when the cost of production is low. Accordingly, such bottles are produced with batch sizes running in lakhs and on automatic plants that make these continuously.

Salient Features:

- Generally, the liquid bottle has cap and cylinder design to hold liquid water. Further, thermo bottle are heavy in weight and very expensive.
- Further, when existing plastic water bottle containing beverage is used after freezing the beverage in summer, a large amount of dew condensation is 10 generated around the outer surface of the PET bottle due to the temperature difference between the inside and outside of the PET bottle.
- Accordingly, when the frozen PET bottle is put in a bag or carried by a user's hand, condensed water causes wetness of a neighbouring object or the user's hand or causes dirt or filth to attach to the PET bottle. 15
- Moreover, if the PET bottle is used after the beverage contained in the PET bottle has been frozen, the heat transfer through a relatively thin wall of the PET bottle is active and causes the frozen beverage in the PET bottle to melt at a fast speed, thereby making it impossible to drink the cold beverage for a long time. Likewise, if the PET bottle is used to contain warm beverage, the warm 20 beverage cools down fast.
- Therefore, there is need in the art to provide a technical solution for the above-mentioned problems. The present subject matter provides a technical solution by heat retention.

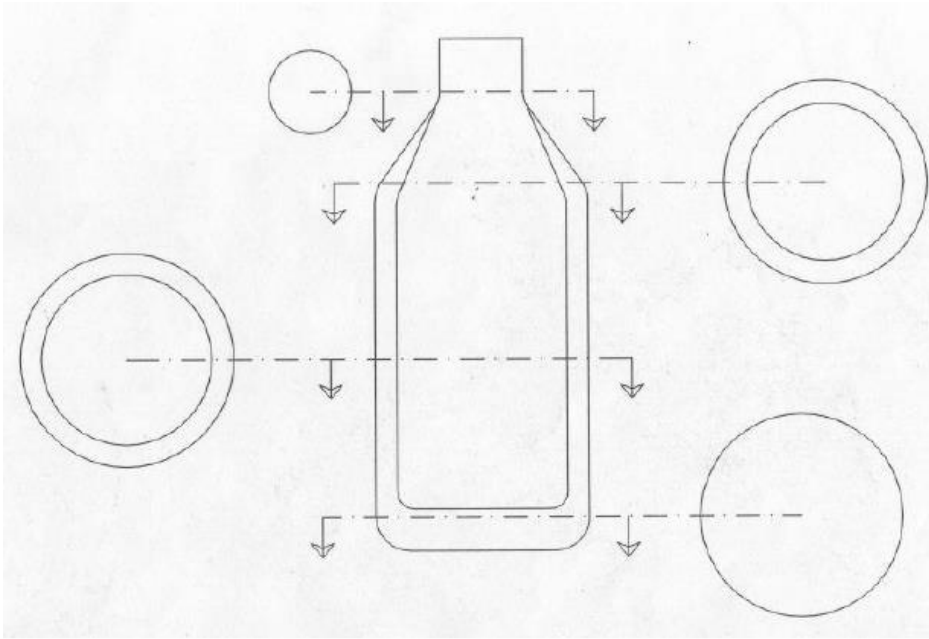


Fig. Double layered liquid bottle