



1 Distillation Petroleum is heated in a flask. At 360 degrees Celsius, it becomes gaseous and rises. The gas escapes through a tube. When cooled, this petroleum liquefies and drips into a glass container. »Destillare« is Latin and means to trickle down. Petroleum or natural gas are the raw materials used in PET production.

2 Cracking The long carbon chains are broken down or »cracked« into shorter chains, which can be further processed to make gasolines, solvents, and plastics.

More than 580 billion PET bottles are likely to be produced worldwide in 2021.

4

3 Polymerization During this chemical reaction, long molecular chains, known as polymers, are formed from many single molecules, the monomers. The monomers dimethyl terephthalate and ethylene glycol join together during polymerization of PET.

4 Pellets PET is melted into spaghetti-like strands that can be cut when they have cooled down. This produces small cylindrical pieces called pellets. They trickle like sugar, can be conveniently packaged in bags, and are easy to transport. Plastic is sold and processed in the form of pellets.

5

5 Stretch blow molding At a beverage factory, blanks are cast from the pellets. One end of the blank already has the screw thread on the bottle neck. The heated blank is blow-molded into the specified bottle shape like a balloon. This produces a PET bottle, which is then filled with a beverage.

