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## **WASTE OR CLOTHES**

Pollution of the environment is a global problem of our time, which is regularly discussed in news and scientific circles. According to the reports of the UN Committee for Nature Protection that every year on the Earth millions of birds, hundreds of thousands of marine mammals and a huge number of fish die due to plastic waste. Millions tons of garbage, which most is made up of plastic, is annually dumped in the waters of the world's oceans. The Great Garbage Patch is a very dense deposit of plastic and other wastes, which is already drifting in the Pacific Ocean. And the island is twice bigger than the United States [1].

It is hard even to count how many plastic bottles we use and throw away during the year. All these plastic bottles from olive oil or mineral water made of polyethylene terephthalate (in abbreviated form it is called PET). Plastic PET bottle is one of the most common items that can be found everywhere on the planet, its share in the waste is huge. Most likely, even an approximate number of discarded plastic bottles on the dump cannot be counted. And they are all made of popular polyethylene terephthalate. In the world PET is used both for the production of containers and for the manufacture of other things - about 70% of this polymer is used for the production of yarns and fibers, and 30% for the production of various containers. In Ukraine, for some reason, most of all PET goes to making bottles and containers, and only a small part goes to fibers and fabrics [2].

Now from recycled bottles it is easy to made new ones, then a reasonable question arises - why not make a fabric of such recycled bottles? The same polyester? In this way, recycled packaging can be recycled into branded clothing.

The technology of secondary polyester formation seems simple: in the processing plants from plastic bottles, covers and labels are removed, the containers

are categorized according to color. Then the cleaned plastic is pressed, cut into small pieces and passed through a steam boiler. As a result, of all manipulations, a secondary granule or flexible substance is formed, which ready for the production of new products.

Of the secondary granules are made, in particular, polyester – fabric, which is easy to wash, while the material dries quickly, after washing does not change the size and shape. Polyester recycling has become one of the main materials in the arsenal of eco-friendly designers. The use of household plastic waste for the release of clothing back in the late 90's. was predicted by fashion classic Paco Rabanne. The idea a couple of few years later began to rapidly evolve in the industry: in 2002, Canadian fashion duo Dsquared2 presented the collection Recycled. At the show, the models gracefully walked along the runway with garbage bags in their hands, and all the clothes were made from recycled plastic. The extravagant idea of the designers did not go unnoticed and gained succession.

The ideas of Sustainable fashion and Sustainable clothing (eco-fashion and eco-clothing) were unexpectedly supported both in the high fashion world and in the area of more affordable brands. In 2008, the first brand from the mass market was a collection of American Apparel - the creators of a cheap base wardrobe in honor of Earth Day released a collection of accessories made from recycled plastic bottles. The brands Nike, Levi's, Asics, Topshop, Marks & Spencer, Max Mara, H&M, Patagonia and others also joined the production of clothes from recycled plastic. And American singer Pharrell Williams has launched his third collection with G-Star RAW and Bionic Yarn, which includes denim garments made using recycled plastic removed from the oceans. [3]

Of course, the activation of the search for a solution of problems is rather late, but nevertheless, the recycling of garbage, including plastic, can bring some relief, because the search for environmentally friendly materials is a much more expensive. Also advantages of processing of plastic are saving gas, electricity, reducing harmful emissions - primary polymers will cost more.

## REFERENCES

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## **INFLUENCE OF SCIENTIFIC AND TECHNOLOGICAL PROGRESS ON THE MANUFACTURE DEVELOPMENT**

Currently scientific and technological progress has become a significant factor. It determines the face of the world economy, world trade, and the relationship between countries and regions. On a large scale, scientific discoveries and inventions materialize in the production apparatus, constantly changing the life of humanity. STP and potential of country is the main mover of its economy. In the conditions of the new stage of the scientific and technological revolution and structural reorganization of the world economy, the issue of scientific and technical potential is becoming crucial. As a result of STP, all the elements of productive forces are developing and improving: resources and subjects of labor, technologies, production organization and management. Innovations are the immediate result of STP. The